SITE CHARACTERIZATION REPORT

WOODLAND FOOD & FUEL (aka Gio's BBQ)
2829 Woodland Bigler Highway, Bradford Township (Woodland),
Clearfield County, Pennsylvania 16881
PADEP Facility ID #17-70935
USTIF Claim # 2017-0178

PROFESSIONAL CERTIFICATION:

Professional Geologist:

Print or Type Name: Guy L. Livingston, P.G.

Signature:

Date: December 20, 2018

SITE CHARACTERIZATION REPORT

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2829 Woodland Bigler Highway, Bradford Township (Woodland),
Clearfield County, Pennsylvania 16881
PADEP Facility ID #17-70935
USTIF Claim # 2017-0178

PROFESSIONAL CERTIFICATION:

Professional Engineer:

Print or Type Name: Jason Haney, P.E.

Signature: _____

Date: December 20, 2018

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JASON R. HANEY
ENGINEER
PE085554

MOUNTAIN RESEARCH, LLC

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WOODLAND\SCR REPORT\WOODLAND SCR APX - 122018
Project No. 4923.18.01

SITE CHARACTERIZATION REPORT

WOODLAND FOOD & FUEL (AKA GIO'S BBQ)
2829 WOODLAND BIGLER HIGHWAY, BRADFORD TOWNSHIP (WOODLAND), CLEARFIELD COUNTY, PENNSYLVANIA, 16881
PADEP FACILITY ID # 17-70935
USTIF CLAIM # 2017-0178

Prepared for

MR. DAVE PANASITI
WOODLAND FOOD AND FUEL
WOODLAND, PENNSYLVANIA

Prepared by

MOUNTAIN RESEARCH, LLC
ALTOONA, PENNSYLVANIA

DECEMBER 2018

Prepared by: _____ **Reviewed by:** _____

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WOODLAND\SCR REPORT\WOODLAND SCR APX - 122018
Project No. 4923.18.01

December 20, 2018

Mr. Scott Ferguson, P.G.
Pennsylvania Department of Environmental Protection
Northcentral Regional Office
208 West Third Street
Williamsport, Pennsylvania 17701-6448

RE: Site Characterization Report
Woodland Food & Fuel (Aka Gio's BBQ)
2829 Woodland Bigler Highway, Bradford Township (Woodland),
Clearfield County, Pennsylvania, 16881
PADEP Facility ID #17-70935
USTIF Claim #2017-0178

Dear Mr. Ferguson:

Please find enclosed an original of the Site Characterization Report prepared by Mountain Research, LLC for the above-referenced site, for your review and approval.

Should you have any questions regarding the enclosed report or require any additional documentation in order to complete the report review and approval process, please contact the undersigned at (814) 949-2034, Ext. 212 or via e-mail at jhaney@mountainresearch.com.

Sincerely,
MOUNTAIN RESEARCH, LLC

Jason R. Haney, P.E.
Project Engineer

JRH:ll
Enclosure

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SITE CHARACTERIZATION REPORT

Woodland Food & Fuel (aka Gio's BBQ)
2829 Woodland Bigler Highway, Bradford Township (Woodland),
Clearfield County, Pennsylvania, 16881
PADEP Facility ID # 17-70935
USTIF Claim # 2017-0178

1.0 EXECUTIVE SUMMARY

- On December 22, 2017, a release was detected from Tank #003. An investigation by Bolger Brothers, Inc. identified a compromised functional element at the top of the tank, releasing super grade gasoline into the tank field backfill. A review of tank levels and sales records revealed an estimation of 1,000 gallons of fuel were released. An Emergency Response Notification Report was immediately submitted to PADEP on the 22nd.

- Interim remedial activities were initiated on December 22, 2017, with the excavation of an interceptor trench on the east side of the building between the sub slab and the tank field in an attempt to mitigate vapors that were causing nuisance odors within the building. Excavated materials were stockpiled on and covered on plastic, and sampled for disposal. Upon elimination of nuisance odors and minimal photoionization detector (PID) readings recorded within the building, the trench was backfilled on January 11, 2018.

- An exploratory excavation on the east side of the UST field at Tank #003 on January 9, 2018 revealed petroleum impacted tank field backfill, and free product perched in the bottom of the tank field basin. Excavated materials were stockpiled on and covered in plastic, and sampled for disposal.

- Two vapor recovery wells (RW-1 & RW-2) were installed on January 16 & 17, 2018. Weekly total phase extraction events were immediately initiated on these wells for recovery of free phase liquids and vapor recovery as interim remedial actions. Weekly vacuum events continued through February, with bi-weekly events taking place from March through May. Vacuum events were reduced to a monthly frequency beginning in June.

- A total of 25 soil samples were collected by Mountain Research from soil borings SB-1/MW-1, SB-2/MW-2, SB-3/MW-3, SB-4/MW-4, SB-5/MW-5, SB-6 through SB-11, SB-12/MW-6, SB-13/MW-7, SB-14/MW-8, SB-15/MW-4BR, SB-16/MW-2BR, SB-17/MW-9, and SB-18/MW-5BR in March 2018, July 2018, and October 2018.

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1.0 EXECUTIVE SUMMARY (Continued)

- Based on analytical results from the soil boring investigation, soil immediately north (SB-9), soils to the south (SB-13), and soils to the southeast (SB-7) of the UST basin are impacted with unleaded gasoline constituents at concentrations exceeding the PADEP RUA MSCs, including 1,2,4-TMB, benzene, and toluene. The extents of soil impacts have been identified by additional soil borings with analytical results below PADEP RUA MSC's.

- In March and July 2018, monitoring wells MW-1 through MW-6 were installed throughout the property in an attempt to delineate groundwater impacts. No overburden aquifer has been identified beneath the property; therefore, all monitoring wells are installed in the first encountered shallow bedrock aquifer.

- Site characterization groundwater monitoring well analytical results confirmed the presence of petroleum constituents at concentrations exceeding the PADEP RUA MSCs for groundwater; the constituents include 1,2,4-TMB, 1,3,5-TMB, benzene, ethylbenzene, MTBE, naphthalene, toluene, and total xylenes.

- Currently, groundwater impacts exceeding the PADEP RUS MSCs are only bounded to the southern edge of the site, with exceedances being present in MW-1 through MW-4.

- Ecological receptor screening was performed; no ecological receptors were identified.

- Completion of an aquifer test and evaluation of data.

- Results of the screen for potential vapor intrusion supported further investigation through the installation and sampling of a sub-slab vapor point. Results of sub-slab vapor testing support that risk related to vapor intrusion of petroleum volatile organic compounds is acceptable.

- Additional characterization activities to be performed include:
    - Installation of additional monitoring wells for delineation of dissolved phase groundwater impacts.
    - Completion of a comprehensive aquifer test.
    - Completion of a site conceptual model.
    - Modeling of COC's fate and transport at the site.
    - Screening of potential vapor intrusion at the site.
    - Selection of a statewide health standard (SHS) and remedial options.

- Groundwater monitoring will continue on a quarterly basis until closure has been attained for a yet-to-be determined cleanup standard.

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2.0 INTRODUCTION

Mountain Research LLC (Mountain Research) has been retained by Dave Panasiti, owner of Woodland Food & Fuel (aka Gio's BBQ) to complete interim remedial activities, and site characterization activities for the facility located in Bradford Township, Clearfield County, Pennsylvania. Based on discrepancies between tank volumes and sales records, followed by a visual investigation, a petroleum release was discovered on December 22, 2017, warranting a PADEP site characterization.

Site characterization activities were conducted in accordance with Title 25, Chapter 245, Administration of Storage Tanks and Spill Prevention Program, Subchapter D, Section 309. This characterization report is submitted in accordance with Section 310(c), SCR.

The following site characterization objectives have been initiated by Mountain Research to meet the regulations mentioned above:

- Identify the extent of impacted soil.
- Identify the extent of impacted groundwater.
- Describe the study area geology, hydrogeology, aquifer characteristics, and physical parameters such that a remediation standard and strategy for the site can be selected.

The activities conducted at the subject property and used for characterization of the site to date, include the following:

- Geophysical survey of the site.
- Advancement of a total of 18 soil borings.
- Collection and analysis of a total of 25 soil samples from soil borings.
- Collection and geotechnical analysis of a soil sample.
- Installation of a total of two (3) overburden recovery wells.
- Installation of a total of three (3) overburden monitoring wells.
- Installation of a total of eleven (11) bedrock monitoring wells.
- Collection and analysis of groundwater samples from monitoring wells.
- Surveying the site infrastructure, soil borings, and monitoring wells.
- Measurement of groundwater elevations and deriving direction of groundwater flow and gradient from these measurements.
- Preliminary local water use assessment.
- Ecological Receptor Screening

Soil and groundwater analytical results are compared to the PADEP RUA MSCs throughout this report. The report develops site assumptions based on these comparisons as a starting point for remediation decision making.

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2.1 Constituents of Concern

Soil samples have been analyzed for the following petroleum parameters; 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, cumene, and naphthalene. Based on analytical results, the following parameters have been identified at detectable levels in soil and are therefore identified as the COCs in soil: **1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, cumene, and naphthalene**.

Groundwater samples have been analyzed for the following petroleum parameters: 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, cumene, and naphthalene. Based on analytical results, the following parameters have been detected in groundwater, and are therefore identified as the COCs in groundwater: **1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, cumene, and naphthalene**.

2.2 Media of Concern

Soil and groundwater were identified to contain detectable concentrations of COCs and are therefore considered media of concern at the site.

2.3 Remediation Standard

The remediation standard goal for the property is the Pennsylvania Department of Environmental Protection Non-Residential Used Aquifer Statewide Health Standard (PADEP NRUA SHS for soil and groundwater.

3.0 SITE DESCRIPTION

The study area (Site) is a combination of two (2) separate parcels, both owned by Mr. Panasiti, totaling an approximate area of 2.5 acres. The site is located on the southeast corner of the intersection of state routes 322 (Woodland/Bigler Highway) and 970 (Shawville Highway) . The site includes Woodland Food & Fuel, which is a combination of a restaurant (Gio's BBQ), convenience store, and service station, all located within a single building. The physical address is 2829 Woodland Bigler Highway, Bradford Township, Woodland, Pennsylvania, 16681. The Site is surrounded on three sides by state routes 322 and 970. To the east of the site is a large, gravel parking area used for overnight parking by commercial haulers. The Site is located in the northern edge of the USGS 7.5 Minute Series Wallaceton, PA Topographic Quadrangle at an approximate Latitude 40° 59' 58.2" North and Longitude 78° 20' 47.4" West. The property has an approximate elevation of 1610 feet above mean sea level.

Refer to **Figure 1** (Site Location Map), **Figure 2** (Site Map), and **Figure 3** (Aerial Site Map). Refer to **Figure 4** for a wide site aerial map that illustrates surrounding properties.

3.1 Historical Operations

Historically, the property has been utilized as a gasoline fueling station since 1987. The store has historically utilized USTs for the retail sale of unleaded gasoline and kerosene. The most recent USTs at the property included two (2) 8,000-gallon (Tank #001 and #002) unleaded gasoline tanks, one (1) 4,000-gallon (Tank #003) unleaded gasoline tank, and one (1) 4000-gallon (Tank #004) kerosene tank. These tanks are located to the northeast of the building. The tanks serve the associated four (4) fuel dispensers located immediately north of the building. Additionally, there is a kerosene dispenser at the northeast corner of the building. Refer to **Figure 2** for tank and dispenser locations.

3.2 Current Operations

The site currently acts as a fuel service station, convenience store, and restaurant. All UST's and fuel dispensers currently remain in operation.

3.3 Site Features

The subject property currently contains one (1) permanent structure, Woodland Food & Fuel. The building is of two-story slab-on-grade construction. Surface areas of the property near the tank field and dispensers consist of paved areas, adjacent to gravel parking. Vegetated landscaping is present on the opposite sides of the building from the UST system and dispensers to the west and south. Refer to **Figure 2** and **Figure 3** for site features.

Land to the north of the site, across state route 322 is undeveloped, vegetated wood lands. To the west, across Shawville highway exists residential homes and a commercial property, Woodland Equipment & Supply. The land south, across state route 970 is undeveloped vegetated woodlands. Land to the east of the site consists of gravel parking area and undeveloped, vegetated wood lands. Refer to **Figure 2** for a map showing property boundaries.

3.3.1 Utilities

The following information regarding locations of underground utilities at the property has been obtained through site visits, supplier contacts, and a geophysical survey performed by THG Geophysics, Ltd. (THG):

- Water supply to the site is provided by the American Water Works Company, LLC. The water main runs parallel with both state route 322 (opposite side of the road) and along state route 970, where it follows the road west then south of the site. The lateral supplying service to the site runs perpendicular to 970 where it enters the property to the west of the building.

- Sanitary sewage to the site is provided by the Woodland Bigler Area Authority; the lateral line exits the building from the southern side, running west parallel to state route 970 where it enters the sanitary sewer main.

3.3.1 Utilities

- Electric service is provided by Penelec. The lines are overhead and enter the building from an electric pole located to the west side of the building.

- Underground tank monitoring equipment, and electrical lines run from the middle of the eastern side of the building, to the tank field and then to the dispenser islands.

Refer to **Figure 5** for approximate utility locations.

4.0 RELEASE HISTORY

4.1 Dispenser Piping Release – October, 1996

A Notification of Reportable Release (NORR) / Notification of Contamination (NOC) form was submitted on behalf of the owner on October 8, 1996, indicated that a suspected release of unleaded gasoline occurred. During product piping upgrades near one of the dispenser islands, suspected contamination was encountered. *Underground Storage Tank System Closure Report Form (November 19, 1996)* – The reported was prepared by Perry Petroleum Equipment, Ltd. and noted a Change-In-Service for Tanks 001, 002, and 003.

Section II describes that, *"Soils were excavated around piping. Soils were stockpiled and sampled due to unusual vapors…Lines were removed from the ground and replaced with APT double wall piping."* Section VII states, *"While removing an island, encountered unusual vapors beneath the island in the dispenser area. An estimated 40 tons of soil was stockpiled on plastic at the site and sampled."* A Site Map is attached which shows the locations of three (3) soil samples (two (2) beneath lines, one (1) stockpile) which were collected on October 10, 1996. Chain of custody documents for ChemSpec Analytical Laboratories (Harrisburg, PA) are included which show volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) as the analytes. Various compounds were detected in the second soil sample and the stockpile sample but concentrations were apparently below regulatory limits at the time. No maps or additional documentation exist for this release. For documentation of the October 1996 release, refer to **Appendix A**.

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4.2 Claim #2017-0178 – Compromised Functional Element – December 2017

In late December, 2017, a discrepancy between the volume of Super Grade unleaded gasoline required to fill Tank #003 and sales records prompted the owner to contract Bolger Brothers, Inc. to investigate a potential release. On December 22, 2017, Bolger Brothers staff encountered a failure of the functional element at the top of Tank #003. Product was being sprayed below grade surface (bgs) from the functional element into the tank backfill. Tank #003 was immediately shut down until a safety hazard evaluation and corrective measures could be taken. 9-1-1 and PADEP were immediately contacted. An Emergency Response Notification Report was submitted by Bolger Brothers, Inc. on behalf of the site owner. Refer to **Appendix B** for a copy of the Emergency Response Notification Report.

4.3 Type & Volume Of Regulated Substance Released

The released product consisted of super grade, unleaded gasoline. All released product infiltrated the UST backfill. In a comparison of tank volumes and sales records, its estimated that 1,000 gallons of unleaded gasoline were released in approximately a weeks' time frame.

4.4 Fire & Explosion Hazards

No fire and explosion hazards exist at the site.

4.5 Relocation of Affected Residents

Based on the nature of the impacts, relocation of affected residents was not deemed necessary.

4.6 Recovery of Free Product

Small amounts of free product were encountered during interim remedial actions; however, no free product was encountered during site characterization activities. Minimal amounts of free product were recovered during initial vacuum events and continued through passive recovery by utilizing absorbent booms within the recovery wells. Refer to **Figure 2** for recovery well locations.

4.7 Excavation of Impacted Soil

Unleaded gasoline impacts were encountered within pea gravel during an exploratory excavation along the eastern edge of the UST field. Suspected contaminated backfill material was removed and staged in covered roll-off containers for disposal by Bigler Boyz. An estimated 5 tons of impacted material was removed from the site for disposal. No additional soils were removed due to close proximity to the UST field. Refer to **Figure 2** for the excavation footprint.

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4.8 Interim Remedial Action

Interim remedial activities began with excavation of a shallow (~3 ft.) trench along the eastern edge of the building in an attempt to mitigate vapors prior to entering the building via the building's concrete slab and associated backfill. Nuisance odors were reported by building occupants near the joint in the buildings slab between the original building's footprint and the concrete slab of an addition that was previously added to the building. PID readings near this joint were discovered by emergency responders in excess of 1,000 PPMv. By opening the trench, vapors ventilated to the atmosphere prior to entering the building. Nuisance odors and PID readings ceased once the trench was opened up. To further prevent nuisance odors or vapors from entering the building, a vapor mitigation system was installed within the building's concrete slab. A vacuum is applied to the subslab backfill within a stockroom area, near the building's slab joint, and ventilated to the atmosphere above the building's roofline. Vacuum is supplied by a regenerative blower. A PID reading collected on June 28, 2018 demonstrated a VOC concentration of 0.7 PPMv. Refer to **Figure 2** for vapor mitigation trench location.

5.0 SOURCE OF PETROLEUM IMPACTS

Based on technician observations the source of unleaded gasoline release is confirmed to be a failed functional element associated with Tank #003.

5.1 Characteristics of Regulated Substance

Observations of the release indicate that the regulated substance released at the facility consists of unleaded gasoline. Analytical results from historical and recent soil boring samples indicate that 1,2,4-TMB, benzene, and toluene are the only COCs that have been detected at concentrations exceeding PADEP RUA MSCs for soil. Analytical results from recent groundwater samples indicate that 1,2,4-TMB, 1,3,5-TMB, benzene, ethylbenzene, cumene, MTBE, naphthalene, toluene, and total xylenes have been identified in groundwater at concentrations exceeding PADEP RUA groundwater MSCs. The characteristics of the aforementioned constituents are summarized in **Appendix C** (Characteristics of Regulated Substances). No historical analytical results from either soil or groundwater sampling are available.

6.0 WATER SUPPLIES

An Environmental Data Resources (EDR) report was reviewed to locate potential water supplies. The EDR report indicated that no water supply wells were identified within ½ of a mile of the property. Refer to **Appendix D** for the regulatory database report.

A review of the Pennsylvania Topographic and Geological Survey's, Pennsylvania Groundwater Information System (PaGWIS) was also completed to locate water supplies within ½ mile of the subject property. No wells were identified to be located within ½ mile of the property. Refer to **Appendix E** for a copy of the PaGWIS database listings.

6.1 Restore or Replacement of Affected Supplies

No supply wells were identified in the area so replacement and restoration of water supplies was not deemed necessary and were not performed at this time.

7.0 METHODS AND EQUIPMENT

In order to delineate the extent and magnitude of impacts at the site, Woodland Food & Fuel retained the services of Mountain Research in January 2018 to conduct a site characterization at the subject property. Site characterization activities were conducted from January 2018 through the present by Mountain Research. The following site characterization activities have been conducted:

- Installation of two (2) recovery wells adjacent to UST field.
- Advancement of a total of 18 soil borings.
- Collection and analysis of 25 soil samples from soil borings.
- Collection and geotechnical analysis of a soil sample.
- Installation of a total of three (3) overburden aquifer monitoring wells.
- Installation of a total of eleven (11) bedrock aquifer monitoring wells.
- Surveying the site infrastructure and monitoring wells.
- Collection and analysis of groundwater samples from monitoring wells.
- Measurement of groundwater elevations and deriving direction of groundwater flow and gradient from these measurements.
- Preliminary local water use assessment.
- Geophysical survey of the site.

Refer to **Figure 2** (Site Map) for maps illustrating the soil boring and monitoring well locations. Field methods for drilling, soil logging description, well installation, soil screening, and groundwater sample collection are described in **Appendix F** (Field Methods).

7.1 Characterization Plans

The *Health and Safety Plan* for the site characterization and *Quality Assurance / Quality Control Plan* are available to the PADEP upon request.

7.2 Soil Borings

A total of 25 soil borings were advanced by Mountain Research at the property in an attempt to characterize soil at the site. Soil was visually inspected and scanned with a PID using the headspace method. One (1) soil sample was collected from each soil boring where the highest PID reading was encountered. If a specified interval of petroleum impacted soil was identified, a second sample was collected as deemed necessary to vertically delineate the overall thickness of petroleum impacted soils, if possible.

If no elevated organic vapor levels are measured along the length of a boring and no staining and / or odors are evident, the sample was obtained from the depth interval immediately above the soil/bedrock interface. The following subsections summarize soil boring advancement activities.

7.2.1 March 2018 – Soil Borings SB-2/MW-2, SB-3/MW-3, SB-4/MW-4, and SB-6 through SB-9

Between March 6 and 12, 2018, Mountain Research installed a total of 7 soil borings (SB-2/MW-2, SB-3/MW-3, SB-4/MW-4, and SB-6 through SB-9) in locations surrounding the UST field in order to delineate soil impacts. Each soil boring was advanced to bedrock refusal utilizing direct push methods. Soil encountered during drilling activities consisted of clay, shale, coal and sandstone.

A total of 7 soil borings were installed with a total of 11 soil samples collected from those borings. Soil samples were collected at depths ranging from three and a half (3.5') to fifteen (15') feet bgs. Note that due to a lack of soil between the gravel parking and bedrock, no soil sample was collected from SB-1/MW-1. No saturation was encountered during soil boring installation activities.

All soils from soil borings were containerized in 55-gallon drums and transported off-site for disposal. Refer to **Appendix G** for disposal documentation. Refer to **Figure 2** for soil boring locations; geologic logs are included for reference in **Appendix H** (Geologic Logs).

7.2.2 July 2018 – Soil Borings SB-12/MW-5, SB-13/MW-6, SB-10, and SB-11

Based on the analytical results from the initial soil samples obtained during March 2018 soil boring installation (discussed in **Section 7.2.1**), additional soil borings SB-10 and SB-11 were installed on July 9, 2018 as required to delineate soil impacts. SB-5/MW-5 and SB-12/MW-6 were installed as a result of additional monitoring wells being required. Each soil boring was advanced to bedrock refusal utilizing direct push methods. Soil encountered during drilling activities consisted of silty clay.

A total of 4 soil borings were installed with a total of 8 soil samples collected from those borings. Soil samples were collected from SB-12/MW-5, SB-13/MW-6, SB-10, and SB-11. Soil samples were collected at depths ranging from two (2) to thirteen (13) feet bgs. No saturation was encountered during installation of additional soil borings.

All spoils from soil borings were containerized in 55-gallon drums and transported off-site for disposal. Refer to **Appendix G** for disposal documentation. Refer to **Figure 2** for soil boring locations; geologic logs are included for reference in **Appendix H**.

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7.2.3 October 2018 – Soil Borings SB-13/MW-7, SB-14/MW-8, SB-15/MW-4BR, SB-16/MW-2BR, SB-17/MW-9, and SB-18/MW-5BR

Based on the analytical results from the previous soil samples obtained during March and July 2018 soil boring installation (discussed in **Section 7.2.1 & 7.2.2**), additional soil borings SB-13/MW-7, SB-14/MW-8, SB-15/MW-4BR, SB-16/MW-2BR, SB-17/MW-9, and SB-18/MW-5BR were installed between October 25 and October 30, 2018 as required to delineate soil impacts. SB-13 through SB-18 were installed as a result of additional monitoring wells being required. Each soil boring was advanced to bedrock refusal utilizing direct push methods. Soil encountered during drilling activities consisted of silty clay, shale, sandstone and coal.

A total of 6 soil borings were installed with a total of 6 soil samples collected from those borings. A single soil samples was collected from each boring. Soil samples were collected at depths ranging from six (6) to nineteen (19) feet bgs. No saturation was encountered during installation of additional soil borings.

All spoils from soil borings were containerized in 55-gallon drums and transported off-site for disposal. Refer to **Appendix G** for disposal documentation. Refer to **Figure 2** for soil boring locations; geologic logs are included for reference in **Appendix H**.

7.2.4 Geotechnical Soil Sampling

In March 2018, one (1) geotechnical soil sample was collected from soil boring location SB-6, an undisturbed/non-impacted area of the property, to evaluate the geotechnical properties of the overburden soil identified at the site. The soil samples were collected from the depth interval of 10 to 12 feet bgs.

The sample was analyzed by Geotechnical Testing Services of Coraopolis, PA for field capacity, density, and bulk density. A sieve analysis was also conducted and subsequently used to obtain a laboratory determined USCS classification of the sampled overburden soils. Geotechnical soil sample location for SB-6 is illustrated on **Figure 2**. A copy of the geotechnical report is included as **Appendix I** (Geotechnical Laboratory Reports).

7.3 Monitoring Wells

During site characterization, a total of nine (9) shallow bedrock aquifer monitoring wells and five bedrock aquifer monitoring wells have been installed. The following subsections summarize monitoring well installation activities conducted at different stages of the project.

7.3.1 Monitoring Wells MW-1 through MW-4

Between March 7, 2018 and March 14, 2018, monitoring wells MW-1 through MW-4 were advanced in the vicinity of the UST field to delineate potential groundwater impacts. The two (2) inch diameter bedrock monitoring wells were installed using hollow stem auger drilled to refusal on bedrock to serve as overburden casing, then air rotary drilling methods to depths ranging between 24 and 36 feet bgs.

All spoils from monitoring well installations were containerized in 55-gallon drums and transported off-site for disposal. Refer to **Appendix G** for disposal documentation. Refer to **Figure 2** for monitoring well locations; geologic logs and well construction diagrams are included for reference in **Appendix H**.

7.3.2 Monitoring Wells MW-5 and MW-6

Based on the analytical results from groundwater samples obtained from monitoring wells MW-1 through MW-4 (further discussed in **Section 9.2.1**), additional monitoring wells MW-5 and MW-6 were installed July 13 and 14, 2018. In order to delineate the groundwater plume, MW-5 and MW-6 were installed side gradient and downgradient, respectively, based on the previous monitoring well groundwater impact isoconcentration contour and flow mapping. The two (2) inch diameter overburden monitoring wells were installed using hollow stem auger drilled to refusal on bedrock to serve as overburden casing, then air rotary drilling methods to depths of 40 feet bgs, each.

The locations of the monitoring wells are illustrated on **Figure 2**. **Table 1** (Monitoring Well Construction Summary) summarizes the installation dates and monitoring well construction details. Well construction and geologic logs are contained in **Appendix H**. All spoils from monitoring well installations were containerized in 55-gallon drums and transported off-site for disposal. Refer to **Appendix G** for disposal documentation.

7.3.3 Monitoring Wells MW-7 through MW-9, MW-1BR through MW-5BR

Based on the analytical results from groundwater samples obtained from monitoring wells MW-1 through MW-6 (further discussed in **Section 7.2.1 & 7.2.2**), additional monitoring wells MW-7 through MW-9 and MW-1BR through MW-5BR were installed between October 26 and October 30, 2018. In order to delineate the overburden aquifer impacted groundwater plume, MW-7 through MW-9 were installed side gradient and downgradient, of previously identified groundwater flow directions and impacted groundwater plume locations. The two (2) inch diameter monitoring wells were installed using hollow stem auger techniques to refusal on bedrock.at depths of 11.7' (MW-7), 19' (MW-8) and 20.5' (MW-9).

7.3.3 Monitoring Wells MW-7 through MW-9, MW-1BR through MW-5BR (Continued)

In addition to the newly installed overburden monitoring wells, five (5) bedrock aquifer wells were installed (MW-1BR through MW-5BR). The bedrock aquifer monitoring wells were installed in locations selected to identify bedrock groundwater gradient and potential bedrock aquifer petroleum impacts, based on previous monitoring well groundwater impact isoconcentration contour and flow mapping. The two (2) inch diameter monitoring wells were installed using hollow stem auger drilled to refusal on bedrock to serve as overburden casing, then air rotary drilling methods to depths of 58.5' (MW-1BR), 58.5 (MW-2BR), 20.0 (MW-3BR), 70.5 (MW-4BR), 79.5 (MW-5BR).

The locations of the monitoring wells are illustrated on **Figure 2**. **Table 1** (Monitoring Well Construction Summary) summarizes the installation dates and monitoring well construction details. Well construction and geologic logs are contained in **Appendix H**. All spoils from monitoring well installations were containerized in 55-gallon drums and transported off-site for disposal. Refer to **Appendix G** for disposal documentation.

7.4 Aquifer Testing

In order to assist in fate and transport analysis, a quantitative understanding of the hydraulic properties of the underlying aquifer was required. On November 27 and 28, 2018, falling head and rising head slug testing was performed on overburden monitoring wells MW-2, MW-3BR, and MW-4BR to determine specific aquifer characteristics of the groundwater within the shallow and deep aquifers. Prior to testing, transducers were placed in each monitoring well to collect measurements throughout each slug test to identify changing water levels over time.

7.4.1 Aquifer Test Results

The data gathered from each slug test was programmed into AQTESOLV for Windows (Version 3.5), along with individual monitoring well information to determine aquifer characteristics by the Bouwer and Rice Method (Bouwer and Rice, 1976). Refer to **Appendix J** for the slug test methods description, copies of the slug test data, corresponding displacement data, and displacement versus time graphs. Hydraulic conductivity values for the rising head slug tests are summarized in **Table 2**.

The Bouwer and Rice Method calculations yielded a hydraulic conductivity value of **0.136ft / day** for the **unconfined shallow** aquifer in the vicinity of the site. Using the values of hydraulic conductivity (K) and an aquifer thickness (b) of 9.50 feet, the calculated average transmissivity (T = Kb) is **1.30 ft^2 / day**.

The Bouwer and Rice Method calculations yielded an average hydraulic conductivity value of **0.085 ft / day** for the **confined shallow** aquifer in the vicinity of the site. Using the values of hydraulic conductivity (K) and an average aquifer thickness (b) of 9.50 feet, the calculated average transmissivity (T = Kb) is **0.90 ft^2 / day**.

7.5 Site Survey

On April 9, September 6, and December 7 of 2018, the subject property was surveyed by Geotec, Inc. of Hollidaysburg, Pennsylvania (Geotec). Geotec's land survey included property boundaries, roadways, infrastructure, soil boring locations, and the location and elevation of monitoring wells; all of the aforementioned features were illustrated on a base map, and incorporated into Site Map **Figure 2**.

7.6 Characterization and Disposal of Waste

Soil cutting generated during the advancement of soil borings and monitoring well installation activities were staged in 55-gallon steel drums on the subject property prior to being disposed of by Water Depot, Inc. on June 8, 2018. One (1) soil disposal sample was collected on April 16, 2018, to facilitate disposal of soil cuttings.

Because groundwater concentrations were not yet characterized, purge water produced during initial well development was drummed in (1) 55-gallon drum. This drum of purge water was evacuated by Water Depot, Inc. at the conclusion of an interim remedial vacuum event.

A copy of the soil and water disposal manifest is included as **Appendix G**.

7.7 Geophysical Survey

A geophysical survey was performed on the property to confirm the locations of known and USTs and utilities. In addition, the uncertain location of on-site underground utilities including the dispenser electric, water supply lines and sewage system within the drilling area required clarification. The geophysical survey was conducted by THG Geophysics, Ltd. on March 2, 2018. The geophysical survey consisted of a time domain electromagnetic (EM) and ground penetrating radar (GPR) surveys to identify unknown USTs, underground utilities, and/or other anomalies. The findings of the survey included three areas of interest. *Figure 3* of **Appendix L**, Underground Storage Tank and Utility Survey identifies the areas in question. Although the three areas were designated as subsurface anomalies, none displayed the typical signature associated with a UST. It is believed that the areas are related to reinforced concrete (rebar) and buried debris.

8.0 SITE GEOLOGY

The site is situated within the Pittsburgh Low Plateau Section, Appalachian Plateaus Physiographic Province of Pennsylvania.

8.1 Local Soils

Based on information provided by the United States Department of Agriculture (USDA) Soil Conservation Service (SCS), native soils at the property consist of Wharton silt loam, 3 to 8 percent slopes (WhB) and Wharton silt loam, 8 to 15 percent slopes (WhC). The Wharton silt loam consists of hillslopes that are moderately well-drained and low runoff. Refer to **Appendix L** for a copy of the soil survey.

8.1 Local Soils (Continued)

Based on Geotechnical results, the soil on the subject property is classified as silty clay with gravel and shale. Soil encountered during drilling activities consisted of mostly clay, silty clay, and shale. Saturation was present in the overburden soils between 28-34 feet.

8.2 Bedrock Geology

Based on published geologic data, underlying bedrock at the site is classified as the Pennsylvanian Age Allegheny Group. The Allegheny Group consists of cyclic sequences of sandstone, shale, siltstone, claystone, limestone, coal and underclay. Bedding ranges from thin and fissile to massive and thick depending on rock type. Joint formation, spacing, and density are also dependent on rock type with joint patterns being locally very complex and irregular. Most joints are open and sub-vertical. Porosity is generally moderate in sandstone and low in other rock types. Permeability is also moderate to low. Occurrence of ground water is irregular due to the wide variability of rock types.

Refer to **Figure 6** for a copy of the geologic map which depicts the subject property.

Figure 7 (Cross Section Location Map), **Figure 8** (Cross Section A-A'), **Figure 9** (Cross Section B-B'), and **Figure 10** (Cross Section C-C'), are included to illustrate subject property. Refer to **Appendix H** for geologic logs.

A geophysical investigation was performed at the site in September, 2018. The investigation consisted of an electrical imaging survey, and a very low frequency electromagnetic survey. The surveys identified multiple potential fractures and previous excavations at the site. Refer to **Appendix M** for a copy of the geophysical survey.

8.3 Hydrogeology

Roaring Run, a tributary of Clearfield Creek which, is located approximately 1,500 feet to the south. Clearfield Creek flows northwest into the West Branch of the Susquehanna River. There are no other water bodies in the vicinity of the site. The property is located approximately 1614 feet above sea level and situated within the Pittsburgh Low Plateau Section within the Appalachian Plateaus physiographic providence. The topography of the subject property gently slopes to the south and east. Comparing soil boring logs, well logs and static water elevations, two zones have been identified within the aquifer. A shallow zone has been identified in MW-1 through MW-9, and MW-3BR. A deep zone has been identified from MW-1BR, MW-2BR, MW-4BR and MW-5BR.

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8.3 Hydrogeology (Continued)

According to data obtained from groundwater sampling events conducted from March 2018 to April 2018, static water level measurements range from 16.60 feet below top of casing (btoc) at MW-1 and 33.50 feet btoc at MW-3. Calculated from the groundwater monitoring event on September 10, 2018 where all monitoring wells were gauged, the average groundwater gradient between monitoring wells MW-2 and MW-6 is 0.146 feet/foot, in a southeastern direction. Refer to **Figure 10** for an shallow groundwater aquifer elevation contour map.

Following the additional monitoring well installation, a groundwater monitoring event conducted in December 2018, static water level measurements range from 9.83 feet below top of casing (btoc) at MW-7 and 74.38 feet btoc at MW-5BR. Calculated from the groundwater monitoring event on December 13, 2018 where all monitoring wells were gauged, the average groundwater gradient for the shallow zone between monitoring wells MW-7 and MW-9 is 0.0899 feet/foot, in an eastern direction. The average groundwater gradient for the deep zone between monitoring wells MW-4BR and MW-5BR is 0.476 feet/foot in a northeastern direction. Refer to **Figure 12** and **Figure 13** for shallow and deep aquifer elevation contour maps, respectively.

Static groundwater level measurements are summarized in **Table 3** (Groundwater Elevation Summary).

9.0 ANALYTICAL RESULTS

Soil and groundwater samples were analyzed using U.S. Environmental Protection Agency (USEPA) approved methods for the regulated substances related to the release of unleaded gasoline.

9.1 Soil Borings

A total of 25 soil borings were advanced at the property. Refer to **Figure 2** for soil boring and corresponding soil sample locations. The following subsections summarize soil sample analytical results.

9.1.1 Soil Boring Analytical Results

A total of 25 soil samples were collected from soil borings SB-1/MW-1, SB-2/MW-2, SB-3/MW-3, SB-4/MW-4, SB-5/MW-5, SB-6 through SB-11, SB-12/MW-6, SB-13/MW-7, SB-14/MW-8, SB-15/MW-4BR, SB-16/MW-2BR, SB-17/MW-9, and SB-18/MW-5BR in March 2018, July 2018, and October 2018. Soil samples were analyzed for 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, cumene, and naphthalene via EPA method 8260B. Analytical results identified the following constituents at concentrations above the PADEP RUA soil to groundwater MSCs for unsaturated soil: 1,2,4-TMB, benzene and toluene. Soil impacts were identified at six and a half (6.5) feet to seventeen feet (17') bgs within soil borings. Note that soil analytical data at SB-18 is not being included in this evaluation. SB-18 has been determined to be collected below the level of soil saturation. Due to SB-18's proximity to SB-17, SB-17's analytical analysis is believed to be an acceptable analysis of SB-18. Additionally, no soil sample was collected from the advancement of MW-3BR due to its proximity to MW-17, where SB-13 was advanced and analyzed.

9.1.1 Soil Boring Analytical Results (Continued)

The following table summarizes the constituents identified in soil at concentrations above each constituent's respective PADEP RUA soil to groundwater MSC.

COCs Exceeding PADEP RUA MSC	Soil Borings Containing COC Exceedance of PADEP RUA MSC
1,2,4-TMB	SB-9 (6.5'), SB-13 (9')
Benzene	SB-9 (6.5'), SB-7 (15')
Toluene	SB-9 (6.5')

Concentrations of remaining analyzed constituents were either below laboratory PQLs, or below PADEP RUA MSCs. Refer to **Appendix N** for soil sample laboratory analytical data reports, which is summarized in **Table 4**. Refer to **Appendix O** for isoconcentration maps of COC concentrations above PADEP RUA MSCs for soil.

9.2 Groundwater

9.2.1 Monitoring Well Analytical Results

Four (4) rounds of groundwater monitoring have been conducted at bedrock aquifer monitoring wells MW-1 through MW-4 in March, April, September, and November. Three (3) rounds of groundwater monitoring have been conducted at bedrock aquifer monitoring wells MW-5 and MW-6 in August, September, and November 2018. And two (2) rounds of groundwater monitoring were conducted at overburden aquifer monitoring wells MW-7 through MW-9, and bedrock aquifer wells MW-1BR through MW-5BR during November 2018. Groundwater samples were analyzed for 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, cumene, and naphthalene via EPA method 8260B.

The following table summarizes the constituents historically identified in groundwater at concentrations above each constituent's respective PADEP RUA MSC.

COCs Exceeding PADEP RUA MSC	Wells Containing COC Exceedance of PADEP RUA MSC
1,2,4-TMB	MW-1, MW-2, MW-3, MW-4, MW-7, MW-9, MW-3BR and MW-4BR
1,3,5-TMB	MW-3 and MW-4
Benzene	MW-1, MW-2, MW-3, MW-4, MW-7, MW-8, MW-9, MW-3BR MW-4BR and MW-5BR
Ethylbenzene	MW-3, and MW-3BR
Cumene	MW-3,
MTBE	MW-2, MW-3, MW-4, and MW-8
Naphthalene	MW-3 and MW-3BR
Toluene	MW-3, MW-4, MW-3BR and MW-4BR
Total Xylenes	MW-3, and MW-3BR

9.2.1 Monitoring Well Analytical Results (Continued)

All constituents were detected in at least one well above PADEP RUA MSC. Refer to **Appendix P** (Laboratory Analytical Data Reports) for laboratory analytical data reports for groundwater. Groundwater analytical results obtained to the present are summarized in **Table 5** (Groundwater Analytical Summary – Volatiles).

Based on the bedrock aquifer groundwater sampling events conducted in 2018, MW-1 through MW-4, MW-7 through MW-9, and MW-3BR through MW-5BR have all exhibited at least one COC above PADEP RUA MSC, with the highest concentrations of constituents identified above PADEP RUA MSCs being detected in monitoring wells MW-3, MW-4 and MW-3BR, which are situated down gradient and side gradient of the UST field, respectively.

As of the most recent groundwater sampling events (November 27, 2018 and December 6, 2018) multiple wells that initially exhibited groundwater COC above PADEP RUA MSC have now fallen below COC PADEP RUA MSC's. Wells still with COC's remaining above PADEP RUA MSC's include MW-3, MW-4, MW-7 through MW-9, MW-3BR through MW-5BR. Although MW-4 demonstrates exceedances, COC's have steadily fallen since the April sampling event. Not enough analytical data has been collected from MW-7 through MW-9, MW-1BR through MW-5BR to make an accurate assessment of COC concentration trends. MW-5 and MW-6 have remained consistent with no COC concentrations above laboratory detection limits. It should be noted that MW-2BR has not been sampled due to a lack of available water during the sampling events, so the deep aquifer data set is not complete. Refer to **Appendix Q** for groundwater isoconcentration maps of COC concentrations above PADEP RUA MSCs for groundwater.

10.0 VAPOR INTRUSION INTO BUILDINGS

Assessment of potential vapor intrusion exposure pathways is required under the SHS and SSS closure strategies. The January 2017 Land Recycling Program Technical Guidance Manual-Vapor Intrusion into Buildings (VIB) from Groundwater and Soil under Act 2 (the "VIB Guidance" or "document") must be followed to perform the vapor intrusion assessment for this site. Certain compounds typically associated with a release of petroleum products may represent a vapor intrusion concern even at concentrations in soil below RUA soil to groundwater pathway MSCs or in groundwater below RUA groundwater MSCs.

The document provides guidance in identifying potential vapor intrusion sources to current and future planned buildings and determining if additional vapor intrusion assessment, remedial actions, or mitigation is required to address Chapter 250 requirements.

10.1 Screening for Potential Vapor Intrusion Sources

To determine if potential vapor intrusion source(s) exist at the site, soil and groundwater sample point locations will be first screened against distance criteria. If soil and/or groundwater sample locations are identified within certain distances of a building and/or preferential pathway (underground utility), constituent concentrations from those sample locations will be compared to constituent and medium specific screening values for unleaded gasoline impacts.

10.1.1 Building Receptors

The nearest occupied building, serving as Woodland Food & Fuel, a convenience store and restaurant, is currently located approximately 30 lateral feet south east of the unleaded gasoline release area. The Woodland Food & Fuel building is constructed as single story, slab-on-grade. There are currently no plans for additional building construction at the site.

10.1.2 Underground Utilities

Underground utilities that are currently present at the site include; a sanitary sewer line, electric line, and natural gas line beneath the southern portion of the building (approximately three (3) to five (5) feet bgs.); and a municipal water line is located in the southwest portion of the building (approximately three (3) to five (5) feet bgs). Electric lines and the tank monitoring system run from the eastern side of the building to the tank field, and dispensers. These tank monitoring system utilities enter the building above surface grade, eliminating the potential of vapors entering the building at this location. Refer to **Figure 5** for utility locations.

10.1.3 Groundwater

Detectable concentrations of COCs (above and below their respective PADEP RUA groundwater MSC) have been identified in both the shallow and deep zones of the aquifer. During drilling activities, observed initial saturation within the shallow zone occurred at depths at or greater than 7 feet bgs. The highest groundwater elevations recorded in shallow zone monitoring wells range from 7.10 feet btoc at MW-7 to 15.90 feet btoc at MW-9. Shallow zone material consists of primarily clay, with weathered shale fragments and is considered "acceptable" for the occurrence of attenuation.

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10.1.3 Groundwater (Continued)

Groundwater sampling locations were screened against proximity and/or separation distances of current building receptors and underground utility line locations at the site. The following proximity and separation distances were applied: 30 feet of horizontal separation and 5 feet of vertical separation. According to the VIB Guidance document, if either the horizontal or vertical proximity condition is met for proximity distance, no additional vapor intrusion evaluation is necessary. Similarly, a subsurface feature (underground utility) may be eliminated as a potential preferential pathway, if either the horizontal or the vertical separation distance criteria is met. Refer to **Figures 14** for locations of groundwater sampling locations, the potential building receptors, current underground utility lines, and proximity/separation distance boundaries. Analytical results from the aforementioned groundwater sampling locations are summarized in **Table 5**.

Results of the distance screen for potential vapor intrusion sources in groundwater indicate that the following groundwater sample locations are within either the proximity distances for the building(s) and/or within the separation distance of a potential preferential pathway (current utility), and were therefore retained for further screening: MW-2, RW-2, MW-4, and MW-7. In all of these locations groundwater was not encountered in the shallow zone of the aquifer until depths greater than five (5') feet; therefore, the vertical separation and vertical proximity distances were exceeded. These groundwater sample locations do not require further evaluation

10.1.4 Soil

A comprehensive soil sample data set was used to identify potential soil sources for vapor intrusion. Soil sample locations range in depth from three and a half (3.5') feet bgs to fourteen and a half (14.5') feet bgs. Shallow zone material consists of clay with shale fractures and is considered "acceptable" for the occurrence of attenuation.

Soil sample locations were screened against proximity and/or separation distances of current building receptors and underground utility line locations at the site. Because SPL has not been identified during soil characterization, the following proximity and separation distances were applied: 30 feet of horizontal separation and five (5) feet of vertical separation. According to the VIB Guidance document, if either the horizontal or vertical proximity condition is met for proximity distance, no additional vapor intrusion evaluation is necessary. Similarly, a subsurface feature (underground utility) may be eliminated as a potential preferential pathway, if either the horizontal or the vertical separation distance criteria is met. Refer to **Figure 2** for locations of soil borings, the potential building receptors, current underground utility lines, and proximity/separation distance boundaries. Analytical results from the aforementioned soil sample locations are summarized on **Table 4**.

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10.1.4 Soil (Continued)

Results of the distance screen for potential vapor intrusion source locations in soil indicates that the following soil sample locations are within either the proximity distances for the building(s) and/or within the separation distance of a potential preferential pathway (current utility) therefore retained for further screening: MW-2/SB-2, MW-4/SB-4, MW-7/SB-13, and SB-6). Upon further evaluation, all soil samples were collected below the five (5') foot bgs depth threshold, eliminating all but MW-4/SB-4. Refer to **Figure 14** for the retained soil sample locations determined to be located within proximity and/or separation distances of the building(s) and current utilities.

To determine if soil concentrations identified at MW-4/SB-4 represent potential vapor intrusion sources, each constituent was compared to the SHS residential vapor screening values. All MW-4/SB-4 soil analytical results were reported below residential vapor screening values under the SHS and are summarized on **Table 4.** Refer to **Appendix N** for soil sampling laboratory analytical data sheets.

Although no potential soil or groundwater vapor intrusion sources were identified within proximity distances, initial odors in the building immediately following the release prompted an evaluation of vapor conditions through alternate assessment options. For this reason the next step in the vapor intrusion assessment is to install and sample a sub slab vapor monitoring point. The evaluation is a precautionary measure and not required under January 2017 Land Recycling Program Technical Guidance Manual.

10.2 Quantitative Evaluation of Subsurface Soil Vapor Conditions

The following sections discuss the sampling activities associated with the quantitative investigation of the risk related to building vapor intrusion of VOCs. These activities and results of sampling are presented as a conservative assessment of the potential risk of exposure through vapor intrusion into the building, nearest to the groundwater source area.

10.2.1 Sub-Slab Soil Vapor Point Installation

One (1) sub-slab soil vapor monitoring point (SSVP-1) was installed at the site on December 11, 2018. The sub-slab soil vapor point SSVP-1 was installed through the concrete floor slab of the building. See **Figure 2** for the location of SSVP-1.

The sub-slab vapor sample point was installed by first creating a small borehole, using an electric hammer drill, to facilitate the insertion of the stainless steel vapor sampling point.

A one (1) inch diameter masonry drill bit was advanced to an approximate depth of one (1) inch into the concrete floor. This ensures that the sub-slab monitoring point is flush, or slightly recessed, with respect to the floor surface. A 3/8 inch diameter drill bit was then advanced through the remaining portion of the concrete floor, and approximately three (3) inches, and approximately one (1) inch into the sub-slab material to create an open cavity. Stainless steel tubing of ¼ inch in diameter and four (4) inches in length into the void to serve as the vapor probe.

10.2.1 Sub-Slab Soil Vapor Point Installation (Continued)

The vapor probe was installed flush to slightly recessed, with respect to floor level, and a non-volatile hydraulic concrete was used to seal the remaining annular space. The sampling point was equipped with a threaded fitting, positioned at grade, to create a seal to optimally reduce ambient air infiltration during sampling and between sampling events.

10.2.2 Sub-Slab Soil Vapor Point Integrity Testing

Prior to sampling activities, Mountain Research performed an integrity test on SSVP-1, as well as collecting a grab sample of soil gas from the vapor mitigation system installed during remedial activities. Methodology used in soil gas sample point integrity testing by use of a tracer gas has been based upon suggestions presented within the VIB Guidance. Soil vapor sampling points are tested individually prior to sampling for adequate seal as a quality assurance / control measure. An adequate seal is required for accurate sampling to ensure surface air is not being drawn into the subsurface during the collection of a soil vapor sample. Mountain Research uses laboratory grade helium as a tracer gas for testing soil vapor sampling points due to its compatibility with a wide range of compounds, availability and ability to be monitored with hand held detectors.

The soil vapor sample point cap is opened and tubing is connected to the vapor point in a "T shape", one half of which is then connected to a laboratory certified six (6) liter Summa canister. The canister and sample tubing are covered by a plastic shroud. The shroud is then filled with "party-grade" helium. Before performing the integrity test, the helium concentration inside of the shroud is tested using a hand held helium detector to ensure the atmosphere is saturated with helium gas. The concentration of helium within the shroud is recorded.

After a helium saturated environment is created within the shroud, soil vapor is drawn from the sample point using an electric pump. The soil vapor is purged at a rate of approximately 100 milliliters per minute for five (5) minutes. In order to pass the integrity test, the helium concentration in soil vapor must be <5% of the helium content in the shroud.

If the test passes, vapor sampling will commence.

10.2.2.1 Integrity Testing Results: December 11, 2018

On December 11, 2018, one (1) integrity test was performed on SSVP-1. Helium concentrations for the integrity test were detected at levels below 5% of the original helium concentrations within the shroud. Therefore, the structural integrity was deemed satisfactory for the sub-slab vapor monitoring point. A summary of the helium tracer gas testing results is provided within **Table 6.**

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10.2.3 Soil Vapor Sampling and Analytical Results

Sub-slab soil vapor sampling was conducted on December 11, 2018. Prior to sampling, a minimum of three (3) volumes of air were purged from the sample point and line. The vapor samples were collected in laboratory prepared Summa© canisters. The canisters were fitted with a laboratory calibrated regulator to allow for a thirty (30) minute draw. The samples were analyzed a National Environmental Laboratory Accreditation Conference certified laboratory for 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, toluene, ethylbenzene, total xylenes, MTBE, cumene, and naphthalene via EPA method TO-15. During the December 11, 2018 sampling event, one (1) duplicate sample was collected from SSVP-1 for QA/QC purposes.

The December 11, 2018 analytical results demonstrated all COC below laboratory detection limits within the SSVP-1 sample. The vapor mitigation grab-sample analytical results detected benzene, ethylbenzene, cumene, toluene 1,3,5-trimethylbenzene and total xylenes within the vapor stream. Only benzene exceeded Residential Sub-Slab Soil Gas Statewide Health Standard Vapor Intrusion Screening Values, however, the benzene concentration was below the respective PADEP VIB Guidance Non-Residential Sub-Slab Soil Gas Statewide Health Standard Vapor Intrusion Screening Values (**Table 4**). It is anticipated that benzene concentrations within the soil gas will decrease during site remediation, and future sampling will be performed to evaluate COC concentrations. Based on the December 11, 2018 sub-slab soil vapor analytical results, and the non-residential use of the property, current or future risk of vapor intrusion related to the current commercial building at the Property is acceptable.

Refer to **Appendix R** for the analytical laboratory reports for the soil vapor samples which are summarized in **Table 7**.

11.0 SITE CONCEPTUAL MODEL

The analytical results from soil and groundwater samples collected during site characterization activities indicate that petroleum hydrocarbon constituents typically associated with a release of unleaded gasoline are present at concentrations exceeding the current PADEP RUA MSCs. The nature and extent of the unleaded gasoline and potential migration pathways were evaluated through the comparison of current soil and groundwater analytical data in relation to the geologic and hydrogeologic settings of the facility. The conceptual site model (CSM) developed from the evaluation is discussed in the following sections.

11.1 Aquifer System

Overburden soil extends to depths ranging between five (5) and 20.5 feet bgs where shale bedrock with intermittent coal seams are encountered. Overburden material consists of clay, silty clay, sandy clay, sand and sandstone cobbles.

A shallow unconfined aquifer was identified in the overburden. Wells MW-1 through MW-9 and MW-3BR represent the shallow aquifer monitoring well set. Static water levels observed in in the shallow aquifer are at depths ranging from 7.10 feet btoc MW-7 and 34.21 feet btoc at MW-2.

11.1 Aquifer System (Continued)

A deep aquifer was identified in the shale bedrock. Wells MW-1BR, MW-2BR, MW-4BR and MW-5 BR represent the deep aquifer monitoring well set. Static water levels observed in the deep aquifer are at depths ranging from 47.50 feet btoc MW-1BR and 75.50 feet btoc at MW-5BR.

Groundwater on the subject property in the shallow aquifer flows in an east/southeasteryy direction with a southeasterly component near the southern border of the site. The average groundwater gradient between monitoring wells MW-2 and MW-6 is 0.146 feet/foot.

Groundwater in the deep aquifer appears to flow in a northeasterly direction. The average groundwater gradient for the deep zone between monitoring wells MW-4BR and MW-5BR is 0.476 feet/foot.

Refer to **Figure 11**, **Figure 12** and **Figure 13** for shallow and deep aquifer elevation contour maps.

11.2 Source Area and Contaminants of Concern

The release occurred when a leak from the functional element on the top of tank 003 occurred. No spill containment was located in the area and gasoline quickly infiltrated into backfill material in the UST basin found to the east of the subject property building and canopy.

Three (3) 4,000-gallon unleaded gasoline tanks and the associated product lines and dispensers, installed on the property in May 1996, were removed from the property. Soils uncovered beneath the dispenser islands and product line trenches, and along the UST basin were noted to be visually impacted during UST removal, with elevated PID responses up to 1,320 ppm were observed in soils beneath the dispensers and product lines. No obvious free product or sheen was observed on the water surface with in the UST field; however, there was perched water encountered below the product lines and dispensers with obvious free product and sheen. The impacts beneath the unleaded gasoline dispensers appeared to have originated from the dispensing equipment at both fuel islands; however, no visible leak was observed during dispenser removal, only staining, odor, and product.

During UST closure activities associated with the Bill's Service operations, one (1) 1,000 gallon previously unknown, unregistered used motor oil UST was discovered beneath Dispenser #3. The tank contained approximately four (4) inches of used motor oil. The tank was registered with PADEP and closed by removal on August 18, 2015.

11.2 Source Area and Contaminants of Concern (Continued)

During UST closure, two (2) UST basin soil sidewall closure samples were collected on July 23, 2015. Out of the two (2) UST basin soil samples, one sample (UST Field Soil -1) exceeded the PADEP RUA MSCs for 1,2,4-TMB, 1,3,5-TMB, and benzene. Two (2) UST basin water closure samples were collected on July 23 and July 24, 2015. Out of the two (2) UST basin closure water samples collected, one sample (UST Field Water-2) exceeded the PADEP RUA SHS for 1,2,4-TMB, 1,3,5-TMB, benzene, and toluene. Five (5) dispenser soil samples (DISP-1 through DISP-5) and two (2) product piping soil samples (LINE-1 and LINE-2) were collected on July 27, 2015. DISP-1 (1.5') exceeded the PADEP RUA SHS for 1,2,4-TMB and 1,3,5-TMB. DISP-2 (2.5') exceeded the PADEP RUA SHS for 1,3,5-TMB and naphthalene. DISP-4 (2.5') and LINE-1 (1.5') exceeded the PADEP RUA SHS for benzene. The remaining unleaded gasoline UST closure samples associated with the Bill's Service operations were detected at concentrations below the PADEP RUA MSCs or below laboratory PQLs for all constituents.

Two (2) used motor oil UST basin soil sidewall closure samples and two (2) used motor oil UST basin water closure samples were collected on August 18, 2015. Both soil samples (Ghost Tank - 1 and Ghost Tank - 2) exceeded the PADEP RUA SHS for benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, and chrysene. Used motor oil UST basin water closure samples exceeded the PADEP RUA SHS for 1,2,4-TMB, 1,3,5-TMB, benzene, MTBE, and naphthalene. Due to the bottleware error, Mountain Research returned to the site on August 28, 2015 to collected additional water samples for remaining semivolatile parameters of the PADEP shortlist of used motor oil compounds. The two (2) samples were collected from saturated backfill material near the previous water sample locations. Water sample EW-2 corresponds to Ghost Tank Water – 1 and water sample EW-1 corresponds to Ghost Tank Water – 2. Both water samples (EW-1 and EW-2) exceeded the PADEP RUA SHS for benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, chrysene, and indeno(1,2,3-cd)pyrene.

Based on analytical results from unleaded gasoline UST system closure and the soil boring investigation, soil in the vicinity of the former dispenser islands, UST basin, and product line trenches were impacted with unleaded gasoline constituents at concentrations exceeding the PADEP RUA MSCs, including 1,2,4-TMB, benzene, MTBE, and naphthalene. Therefore, the unleaded gasoline COCs are considered 1,2,4-TMB, benzene, MTBE, and naphthalene.

Based on the used motor oil UST closure samples and soil boring samples analyzed for used motor oil parameters, no soil has been identified at concentrations exceeding the PADEP RUA MSCs for used motor oil parameters. During site characterization, all groundwater samples were below the PADEP RUA MSCs for used motor oil parameters; however, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, chrysene, and indeno(1,2,3-cd)pyrene exceeded the PADEP RUA SHS for groundwater in UST closure samples; therefore, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, chrysene, and indeno(1,2,3-cd)pyrene are considered COCs for used motor oil.

11.3 Groundwater Flow and Constituent of Concern Migration

COC migration in both aquifers occurs via advective and diffusion transport. Advective transport is a process where dissolved phase contaminants are carried through an aquifer at a velocity proportional to groundwater flow in the same direction as the groundwater gradient. Diffusion is a process where dissolved phase contaminants move from areas of higher concentration to areas of lower concentration.

It appears advective transport is the primary mechanism for COC migration in the shallow aquifer as evidenced by the high concentrations apparent in MW-3 located directly down gradient of the release point in the UST basin.

COC Migration appears to be influenced by diffusion in the interpreted northeast trending fractures (Appendix ?). This is evidenced by the detection of COCs in monitoring wells MW-4BR and MW-5BR located laterally from the source with respect to the deep groundwater apparent direction of flow. Refer to **Appendix Q** for groundwater isoconcentration maps illustrating the extent of dissolved phase constituent concentrations in excess of the PADEP RUA groundwater MSC during the groundwater sampling events.

12.0 PETROLEUM IMPACTED GROUNDWATER FATE AND TRANSPORT MODELING

Qualitative Fate and Transport is discussed below for the shallow and deep aquifers. A quantitative fate and transport model will be produced for evaluating the transport of dissolved phase COCs within the aquifers at a later date. At this point, an insufficient data set is not available for proper computer modeling of fate and transport. Quantitative model results will be included in the Remedial Action Plan.

12.1 Qualitative Fate and Transport Discussion

As described in **Section 11.3**, the transport of dissolved phase groundwater impacts is predominately controlled by advective and diffusion transport along groundwater flow direction and gradient.

Constituents 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, cumene, and naphthalene have been identified in the shallow aquifer at concentrations exceeding the PADEP RUA groundwater MSCs. The fate and transport of these compounds are controlled by their specific chemical characteristic and by the characteristics of the aquifer. Migration of these COCs is primarily in the apparent direction of groundwater flow. Currently the COCs have migrated to the east/southeast as far as MW-8. Water quality in MW-5 and MW-6 is currently not impacted with the target COCs.

Constituents 1,2,4-TMB, benzene, and toluene in the deep aquifer at concentrations exceeding the PADEP RUA groundwater MSCs. Migration of these COCs is appears to be through diffusion with in the interpreted fractures and does not appear to follow the apparent direction flow. Currently the COCs have migrated to the east/southeast as far as MW-4BR and MW-5BR. It should be noted that MW-2BR has not been sampled due to a lack of available water during the sampling events so the deep aquifer data set is not compete.

12.1 Qualitative Fate and Transport Discussion (Continued)

Additional wells to the east of the UST basin and along the southern property border are necessary to complete characterization.

Dissolved phase COCs will likely continue to migrate in a east/southeasterly direction. along with the gradient. The migration of COCs may be inhibited due to natural attenuation and influenced by fracture flow conditions; however, several additional observations should be noted:

- Dissolved phase concentrations within the source area (MW-3 and MW-4) have generally decreased since commencement of groundwater sampling. The decrease is likely from the interim remedial actions.
- An initial qualitative review of plume stability based on source and periphery wells indicates decreasing concentrations in the source area and increasing concentrations in side and downgradient periphery wells, which could be indicative plume instability.
- COCs in the shallow aquifer are of higher concentration than in the deep aquifer.

The property line at the time of release is considered the point of compliance (POC). The following monitoring wells are considered POC wells: MW-1, M-1BR, MW-5, and MW-6. The Horizontal delineation is reasonably complete for the shallow aquifer. Horizontal delineation of the deep aquifer is reasonably complete to the south and northeast. Additional horizontal delineation is required to the north/northeast onsite. Vertical delineation of dissolved phase concentrations is incomplete. Mountain Research believes additional dissolved phase horizontal and verticle delineation is required at this time.

13.0 ECOLOGICAL RECEPTOR EVALUATION

Guidance under Title 25 §250.311 (Evaluation of Ecological Receptors) was followed for purposes of assessing potential impacts to ecological receptor(s) as a result of petroleum impacted soil and groundwater at the property. Direct impacts to the following receptors are considered when following the screening process provided within the guidance:

1. Individuals of threatened or 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 wetlands as defined in § 105.17 (relating to wetlands).
3. Habitats of concern.
4. Species of concern.

13.1 Receptor Identification

The following subsections describe methods used to identify potential receptors as part of the ecological receptor evaluation for the property. It should be noted that the entire site or area of concern based upon site characterization was considered in this assessment.

PNDI Search and Results

The Pennsylvania Natural Diversity Inventory Environmental Review Tool (PNDI ER Tool) was used to identify threatened, endangered or special concern species or special concern resources at the site. In terms of this assessment, the PNDI ER Tool was used to identify potential ecological receptors specified under item 1, 2 and 3 as listed above.

A copy of the PNDI search results is included for reference as **Appendix S** (PNDI Environmental Review Receipt). Results of the search identified no known impact to an endangered or threatened species. Because Mountain Research uses the PNDI database only as a tool to identify whether or not threatened, endangered, or special concern species have been identified in the area of concern, further investigation into the specific species of concern was not performed.

13.2 Exceptional Value Wetlands

The receptor assessment performed to identify exceptional value wetlands follows judgment outlined within Title 25 § 105.17 which define exceptional value wetlands as wetlands that exhibit one (1) or more of the following characteristics;

i. Wetlands which serve as habitat for fauna or flora listed as "threatened" or "endangered" under the Endangered Species Act of 1973 (7 U.S.C.A. § 136; 16 U.S.C.A. § § 4601-9, 460k-1, 668dd, 715i, 715a, 1362, 1371, 1372, 1402 and 1531—1543), the Wild Resource Conservation Act (32 P. S. § § 5301—5314), 30 Pa.C.S. (relating to the Fish and Boat Code) or 34 Pa.C.S. (relating to the Game and Wildlife Code).

ii. Wetlands that are hydrogeologically connected to or located within 1/2-mile of wetlands identified under subparagraph (i) and that maintain the habitat of the threatened or endangered species within the wetland identified under subparagraph (i).

iii. Wetlands that are located in or along the floodplain of the reach of a wild trout stream or waters listed as exceptional value under Chapter 93 (relating to water quality standards) and the floodplain of streams tributary thereto, or wetlands within the corridor of a watercourse or body of water that has been designated as a National wild or scenic river in accordance with the Wild and Scenic Rivers Act of 1968 (16 U.S.C.A. § § 1271—1287) or designated as wild or scenic under the Pennsylvania Scenic Rivers Act (32 P. S. § § 820.21—820.29).

13.2 Exceptional Value Wetlands (Continued)

iv. Wetlands located along an existing public or private drinking water supply, including both surface water and groundwater sources, that maintain the quality or quantity of the drinking water supply.

v. Wetlands located in areas designated by the Department as "natural" or "wild" areas within State forest or park lands, wetlands located in areas designated as Federal wilderness areas under the Wilderness Act (16 U.S.C.A. § § 1131—1136) or the Federal Eastern Wilderness Act of 1975 (16 U.S.C.A. § 1132) or wetlands located in areas designated as National natural landmarks by the Secretary of the Interior under the Historic Sites Act of 1935 (16 U.S.C.A. § § 461—467).

Characteristics of the property were considered against those characteristics which define exceptional value wetlands, as referenced above. Results of this assessment are discussed below, addressing each characteristic above in respective order.

- Characteristics (i) and (ii): Results of the PNDI search indicate that the site region is not known to support an endangered or threatened species.

Characteristic (iii): The closest surface water body to the property is Roaring Run, located approximately 0.25 miles south of the property, which joins Clearfield Creek approximately 3.5 miles downstream.

- The Pennsylvania Fish and Boat Commission Class A Wild Trout Waters list (created December 16, 2013) was referenced to identify surface waters that support a population of natural trout. Neither Roaring Run nor Clearfield Creek are listed as Class A Wild Trout Waters.

- Title 25 Chapter 93 was referenced to identify surface waters of exceptional value. Roaring Run and Clearfield Creek are not listed as exceptional value surface waters.

- Roaring Run and Clearfield Creek are not listed as a National wild or scenic river under the National Wild and Scenic Rivers System database for Pennsylvania[1].

[1] Source: National Wild and Scenic Rivers System website; http://www.rivers.gov/map.php.

13.2 Exceptional Value Wetlands (Continued)

- Roaring Run and Clearfield Creek are not classified as wild or scenic under the Pennsylvania Scenic Rivers Act[2].

Characteristic (iv): There are no potable water supply wells within 0.5 miles of the property.

Characteristic (v):

- The property does not lie within State Forest or park lands.
- The property does not lie within an area designated as a Federal Wilderness Area under the Wilderness Act or the Federal Eastern Wilderness Act.
- The property does not lie within an area designated as a National Natural Landmark by the Secretary of the Interior under the Historic Sites Act of 1935.

Based upon the results above, it is unlikely an exceptional quality wetland would be defined at the property.

In summary, it is unlikely that an exceptional value wetland would be defined within the property based upon property characteristics and following classifications listed within the regulatory definition of an exceptional value wetland. Therefore, the probability of impact to an exceptional value wetland is considered negligible.

13.3 Ecological Screening Guidance

The guidance states the following must be considered to address potential impact(s) to ecological receptors. If any of the following criteria are met, no additional evaluation into ecological receptor impact(s) is required;

- Jet fuel, gasoline, kerosene, #2 fuel oil or diesel fuel are the only constituents detected onsite.
- The area of contaminated soil is less than two (2) acres and the area of contaminated sediment is less than 1,000 square feet.
- The site has features such as buildings, parking lots consisting of gavel or pavement areas, which would obviously eliminate the specific exposure pathways, such as soil exposure.

[2] Source: Pennsylvania Department of Conservation and Natural Resources website; http://www.dcnr.state.pa.us/brc/conservation/rivers/scenicrivers/index.htm.

13.3 Ecological Screening Guidance (Continued)

The site meets the criteria contained the ecological screening guidance.

The screening criteria has been met because the only constituents detected on-site are due to a release of unleaded gasoline; additional evaluation into ecological receptor impact(s) is not required.

14.0 CHARACTERIZATION OBJECTIVES

Characterization activities continue, as of the creation of this document. The following site characterization objectives have been developed for site characterization:

- Identify the extent of impacted groundwater and soils
- Describe study area geology, hydrogeology, aquifer characteristics, and physical parameters such that a remediation standard and strategy for the site may be selected
- Development of a site conceptual model from which the fate and transport of contaminants may be evaluated by modeling or analysis
- Investigate groundwater supplies on the subject property and surrounding properties
- Evaluate VIB
- Evaluate the potential for ecological receptor exposure pathways

14.1 Characterization Progress

Based on site characterization activities, the following progress has been made:

- A total of 11 soil borings have been advanced by Mountain Research at the property in order to begin characterization of the site. Note: soil samples were not collected from SB-1/MW-1 due to lack of soil between the bottom of sub base and bedrock. A total of 19 soil samples were collected from soil borings SB-2/MW-2, SB-3/MW-3, SB-4/MW-4, SB-5/MW-5, SB-10/MW-6, SB-7 through SB-9, SB-11 and SB-12 in March 2018, and July 2018.

- Based on analytical results from the soil boring investigation, soils to the north and southeast of the UST field are impacted with unleaded gasoline constituents at concentrations exceeding the PADEP RUA MSCs, including 1,2,4-TMB, benzene, and toluene.

- In March and July 2018, monitoring wells MW-1 through MW-6 were installed throughout the property in an attempt to delineate groundwater impacts. No overburden aquifer has been identified beneath the property; therefore, all monitoring wells are installed in the first encountered shallow bedrock aquifer.

14.1 Characterization Progress (Continued)

- Three (3) rounds of groundwater monitoring have been conducted at monitoring wells MW-1 through MW-4 in March, April, and September, 2018. Two (2) rounds of groundwater monitoring have been conducted at monitoring wells MW-5 and MW-6 in August and September, 2018. Site characterization groundwater monitoring well analytical results confirmed the presence of petroleum constituents at concentrations exceeding the PADEP RUA MSCs for groundwater; the constituents include 1,2,4-TMB, 1,3,5-TMB, benzene, ethylbenzene, cumene, MTBE, naphthalene, toluene, total xylenes.

- The identified dissolved phase COC plumes exceeding the PADEP RUA MSC is only delineated to the south of the property.

- At this point, no vapor intrusion characterization actions have been taken.

- Ecological receptor screening was performed; no ecological receptors were identified.

- At this point, no initial quantitative fate or transport modeling has been completed.

- At this point, no remedial strategy has been selected.

14.2 Description of Further Site Characterization Needed

The following activities are recommended to fully characterize the site and develop a better understanding of site conditions:

- Obtain groundwater samples from MW-2BR when conditions permit.
- Installation of five (5) additional deep aquifer groundwater monitoring wells to fully delineate dissolved phase impacted groundwater plume. Future deep bedrock monitoring well locations are proposed on **Figure 15**.
- Complete quantitative fate and transport modeling.
- Update preliminary conceptual site model with new data.

Any additional characterization activities will be documented in a subsequent Site Characterization Amendment, Remedial Action Plan (RAP) or Remedial Action Progress Reports (RAPRs).

14.3 PADEP Requests and Acknowledgements

No PADEP requests or acknowledgements are included at this time.

15.0 SELECTION OF A REMEDIAL STANDARD

The remediation standard goal for the property is the SHS for soil and groundwater. The property usage is currently commercial and expected to remain commercial in the foreseeable future.

16.0 REMEDIAL ACTION OPTION EVALUATION

The following remedial technologies or approaches were considered for this Site:

- No Remediation
- Groundwater Extraction and Treatment
- Air Sparge/Soil Vapor Extraction (SVE)
- Ozone Injection/SVE
- Vacuum Enhanced Groundwater Extraction (VEGE)
- Risk Based closure having limited active remediation

Although each of the technologies could be applied to the Site, several technologies were considered inappropriate. The following is an evaluation of each technique.

No Remediation

No active remediation is not considered a viable remedial approach. Concentrations of 1,2,4-TMB, 1,3,5-TMB, benzene, ethylbenzene, MTBE, naphthalene, toluene, and total xylenes exist in both the shallow and deep zones of groundwater above PADEP RUA groundwater MSCs. 1,2,4-TMB, benzene, and toluene exist in on-site soils above PADEP RUA soil MSCs. Without remediation there is possibility for the migration of groundwater or soil impacts off site.

Groundwater Extraction and Treatment

Groundwater extraction and treatment remediation involves the extraction of groundwater from dedicated extraction wells, treatment of the extracted water to remove contaminants and lastly the permitted discharge of the treated water. In some cases, groundwater extraction systems have required extensive time to reach remedial goals. The large time requirements are a function of organic contaminants attenuating to soils. The partitioning of organic contaminants from the soil to groundwater where it can be removed from the subsurface is a relatively slow process. Hence, remediation times are typically long.

Given the relatively low hydraulic conductivity at the site, groundwater extraction rates will be low, and groundwater extraction will not treat impacted soils on site.

It should be noted that a public sewer system is available at the Site for discharge of treated water. However, permission may for discharge to the public sewer may not be permitted. If this is the case, alternative means for treated water discharge (PADEP National Pollutant Discharge Permit, reinjection, containment and off-Site management) would need to be explored.

16.0 REMEDIAL ACTION OPTION EVALUATION (Continued)

Air Sparge/SVE

Air sparge involves pumping air into a saturated, contaminated formation. Dissolved contaminants transfer to air bubbles in accordance with Henry's law. The air bubbles then move upward to the vadose zone where the contaminant vapor is transferred to the unsaturated soils. The contaminants are then recovered from the subsurface using a soil vapor extraction system to remove the contaminant vapor from the Site and prevent potential vapor intrusion into nearby structures.

Advantages

- Raises dissolved oxygen levels in the groundwater, giving the technology an added bioenhancement component.
- Pure oxygen can be fed into the air stream, possibly further enhancing the biodegradation component.
- Relatively low capitalization and operations and maintenance (O&M) costs.

Disadvantages

- Best suited for coarser grained soils; the Site soils are relatively fined grained.
- Air tends to form channels as it rises through the saturated column, diminishing surface area contact with contaminated groundwater.
- Generally not suitable for fractured bedrock due to limited radius bubbles will disperse.
- Technology can potentially induce vapor intrusion into buildings creating exposure concerns.

Ozone Oxidation

Ozone oxidation is a relatively unstable, highly reactive compound that is used to destroy contaminants by oxidation. The ozone is typically sparged into the subsurface in a gas phase in a manner similar to air sparge, although some applications have used ozone dissolved in injected water. As with air sparge, dissolved contaminants transfer to the ozone bubbles in accordance with Henry's law. However, as opposed to air sparge, the contaminant is then rapidly oxidized in the ozone bubble.

Advantages

- Has advantages similar to air sparge.
- Residual oxygen from the oxidation reaction promotes bioremediation.
- Requires significantly lower flow rates than air sparge, leading to less potential of groundwater mounding.

Disadvantages

- Has similar disadvantages as air sparge.
- Ozone generation requires additional equipment, as opposed to sparging atmospheric air. An ozone generator is a significant expense.

16.0 REMEDIAL ACTION OPTION EVALUATION (Continued)

Ozone Oxidation (Continued)

- Ozone is a strong oxidant, and may have a corrosive effect on nearby subsurface utility infrastructure. Of particular concern is the tank field equipment. A SVE component will be required for this particular site.
- Potential for ozone to intrude indoor spaces creating an exposure concern.

Vacuum Enhanced Groundwater Extraction

Vacuum Enhanced Groundwater Extraction (VEGE) is a process that includes a vapor system applying a vacuum to groundwater extraction wells to increase the yield of the groundwater extraction well, in either deep or shallow zone. VEGE is typically used in areas of groundwater contamination with wells that produce a limited volume of water. For these reasons a VEGE system is a viable remediation option for this site, given the low hydraulic conductivity. A byproduct of the vacuum application on the aquifer is removal of soil vapor, for remediation of shallow zone soil impacts.

Risk Based Closure

Risk based closure or SSS includes the identification of impacts and the current and future risks that the impacts may pose to human health and the environment. Once an exposure risk is identified, the pathway to a receptor may be eliminated through institutional or engineering controls. Institutional and engineering controls would be implemented by placing an activity use limitation in the form of an environmental covenant on the property deed that follows through to all property ownership requiring controls to limit exposure pathways. A risk based closure may be obtained in a relatively short period of time and with relatively low capital costs.

Risk based closure is not currently a viable remedial option because SHS closure is being sought.

17.0 INITIAL PROPOSED REMEDIAL ACTION

Based on the current understanding of the site and the need for additional site characterization activities, a preliminary remedial strategy is being evaluated. The preliminary proposed strategy to obtain site closure/relief of liability under the PADEP SHS consists of active groundwater and soil remediation via VEGE technologies. Feasibility testing will be conducted at the site to evaluate the effectiveness of groundwater extraction and VEGE. Testing will be completed utilizing multiple vacuum levels (low, mid, high) on both shallow and deep zones in an attempt to identify the most cost efficient method of obtaining remedial goals, while monitoring local peripheral wells for vacuum and groundwater drawdown influence. Upon completion of the feasibility testing, data will be evaluated for the design of a full scale remedial system and the submission of a Remedial Action Plan (RAP) will be submitted to the PADEP within 45 days of the submission of this document.

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18.0 PLANNED ACTIVITIES AND SCHEDULE

Five (5) deep zone monitoring wells, and four (4) feasibility study wells are anticipated to be installed in January 2019. Upon full delineation of groundwater impacts, site Q.D. modeling and feasibility testing will be performed in January 2019. Mountain Research will submit an Amendment to the Site Characterization and Remedial Action Plan on February 5, 2019 that contains all the additional activities performed.

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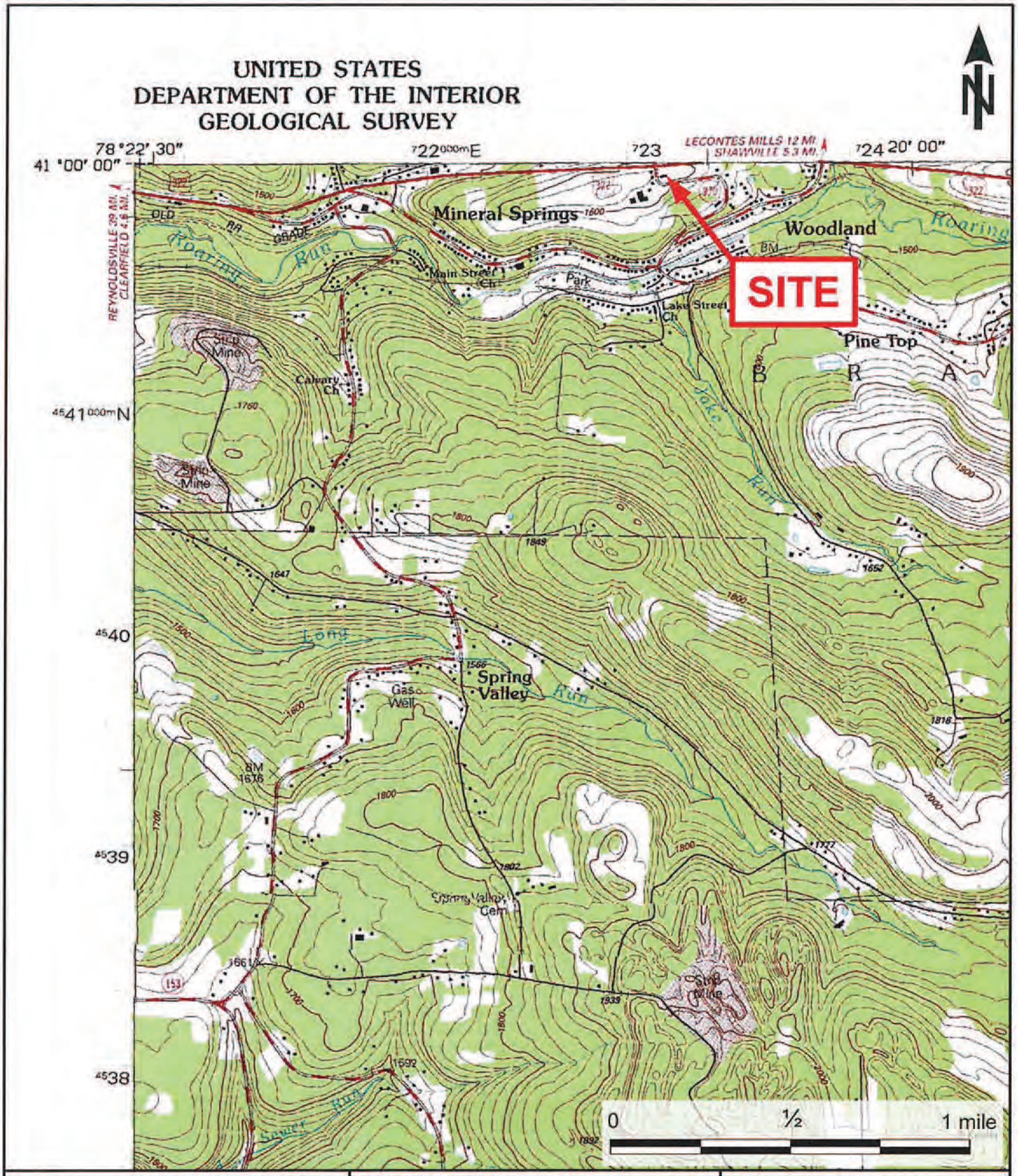
5. Pennsylvania Groundwater Well Inventory System (PaGWIS) Website: http://www.dcnr.state.pa.us/topogeo/groundwater/pagwis/records/index.htm. Accessed March 2017.

FIGURES



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N40.9995° W78.3465°
Wallaceton, PA 7.5 Minute Topographical Quadrangle

Drawn By: MTF Checked By: Date: 1-5-18

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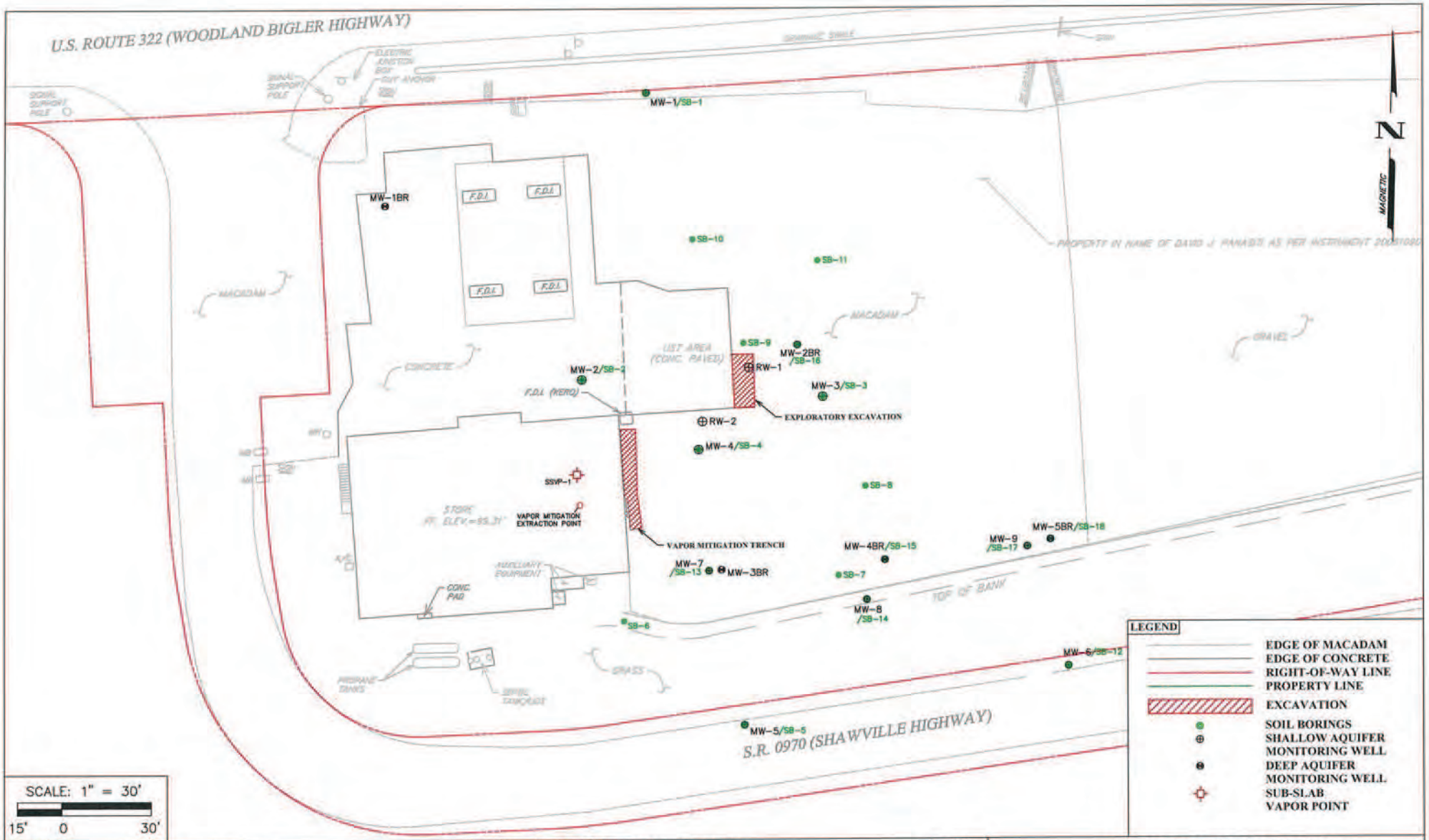
Woodland Food & Fuel
2829 Woodland Biger Highway
Woodland, PA 16881, Clearfield County

SITE LOCATION MAP

Figure 1



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Submitted By: JRH
Project Manager: JRH
Checked By: JRH

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WOODLAND FOOD AND FUEL
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SITE MAP
Figure 2

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AERIAL MAP

Figure 3

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- - - Approximate Property Boundary

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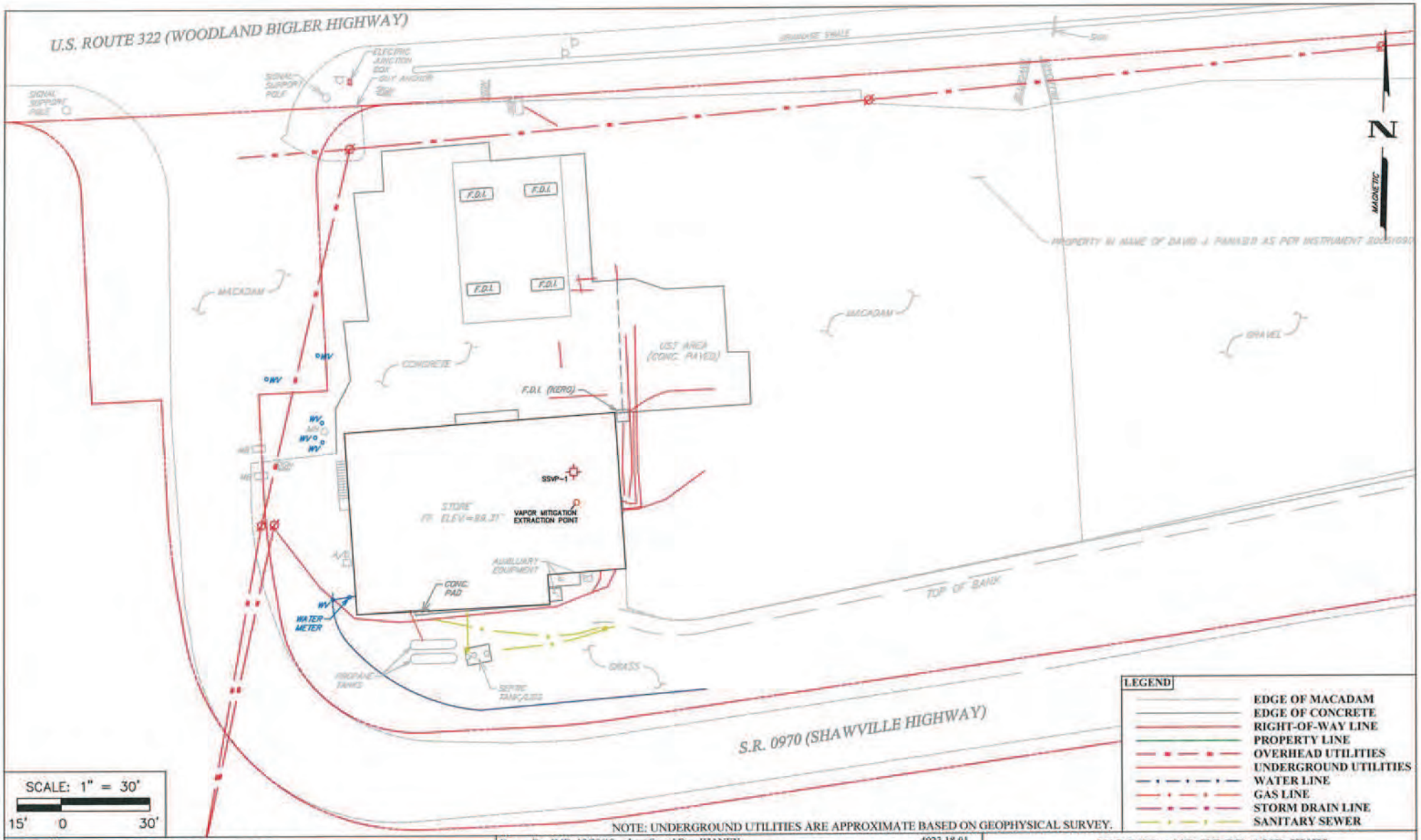
WIDE SITE AERIAL MAP

Figure 4



NOTE: UNDERGROUND UTILITIES ARE APPROXIMATE BASED ON GEOPHYSICAL SURVEY.

LEGEND

- EDGE OF MACADAM
- EDGE OF CONCRETE
- RIGHT-OF-WAY LINE
- PROPERTY LINE
- OVERHEAD UTILITIES
- UNDERGROUND UTILITIES
- WATER LINE
- GAS LINE
- STORM DRAIN LINE
- SANITARY SEWER

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WOODLAND FOOD AND FUEL
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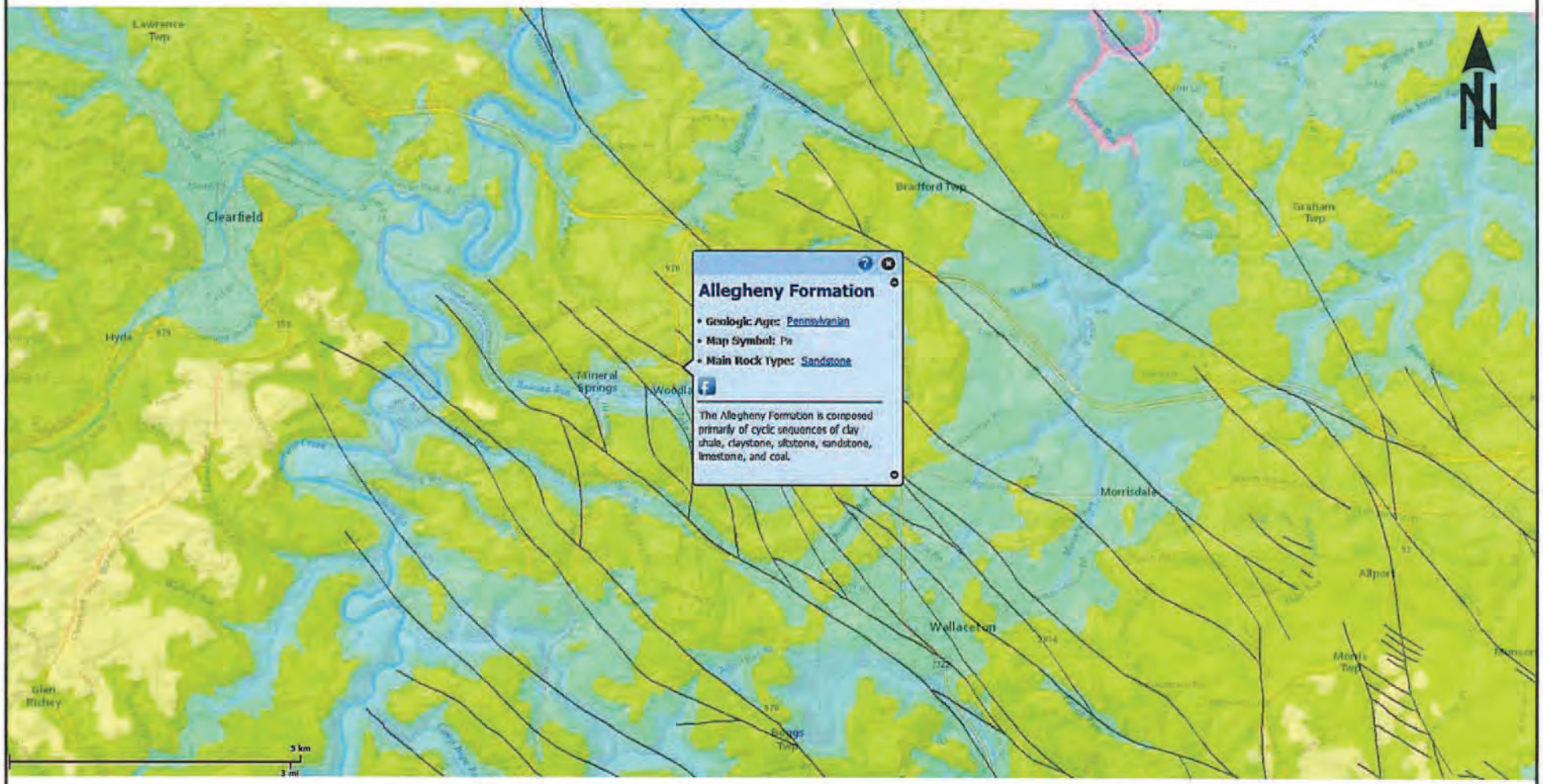
UTILITY MAP
Figure 5



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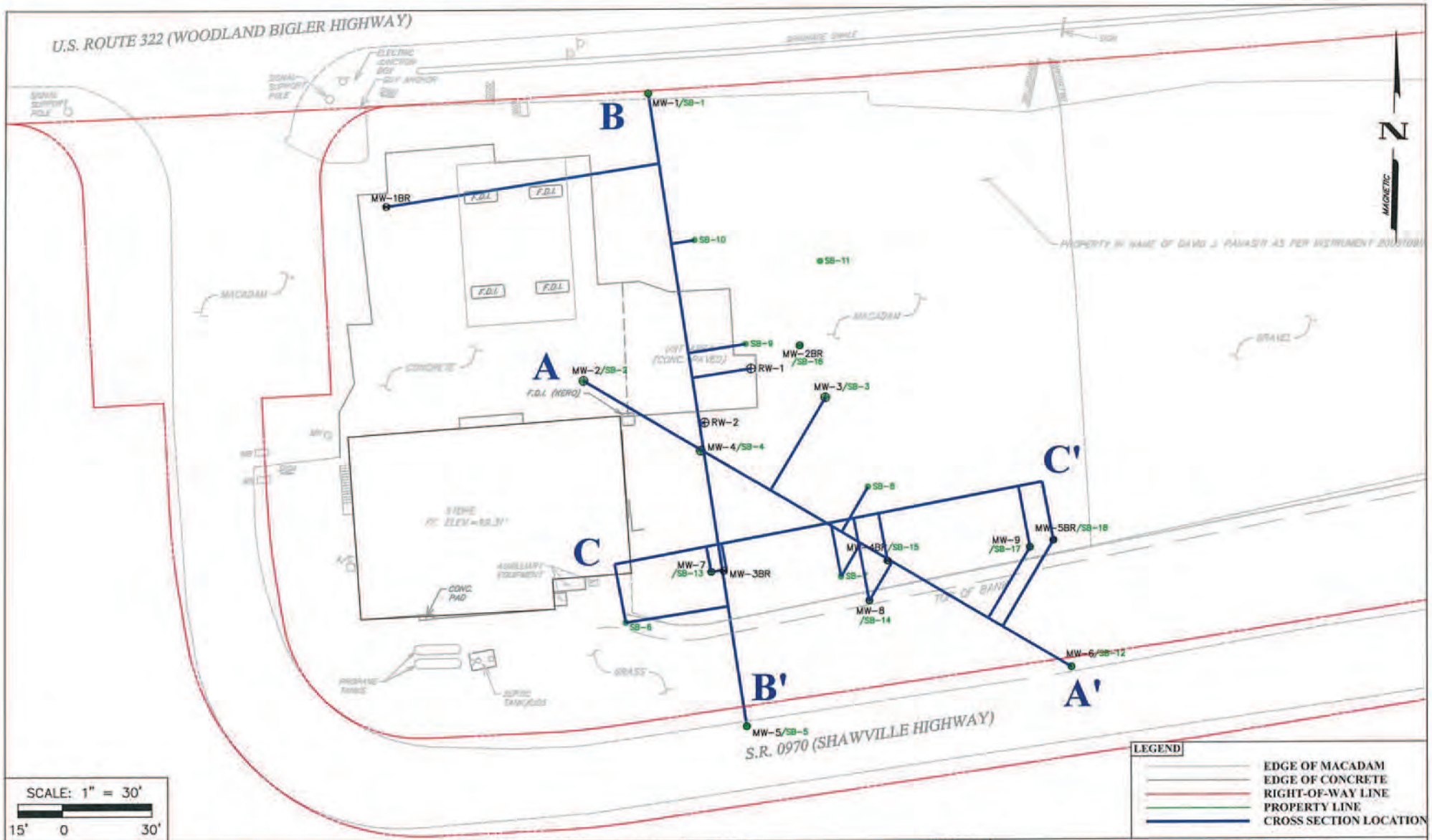
GEOLOGY MAP

Figure 6



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Project Manager: JFH
Checked By: JFH

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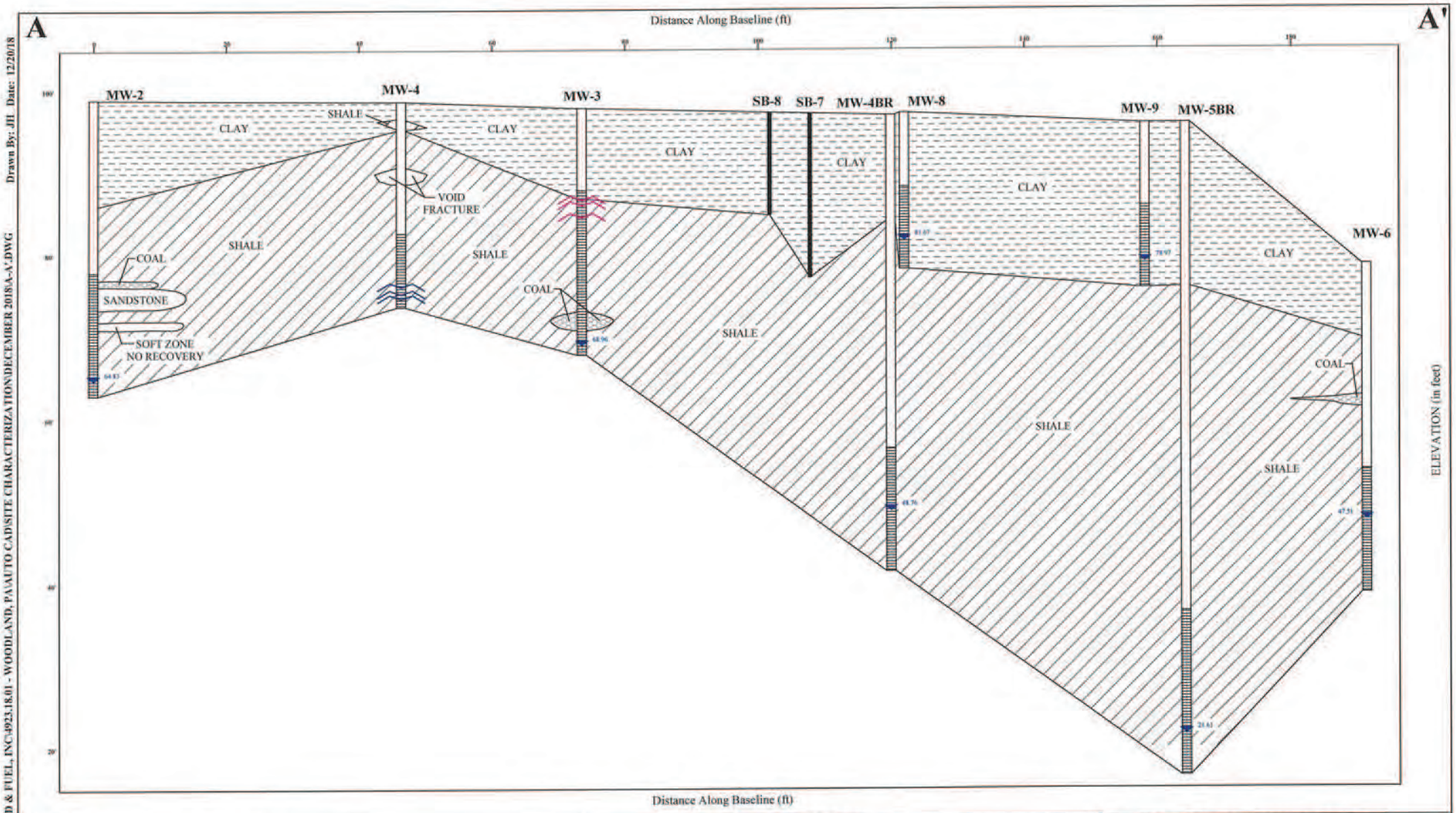
WOODLAND FOOD AND FUEL
2829 Woodland Bigler Highway
Woodland PA 16881, Clearfield County

CROSS SECTION LOCATION MAP
Figure 7



Drawn By: JH Date: 12/20/18

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LEGEND

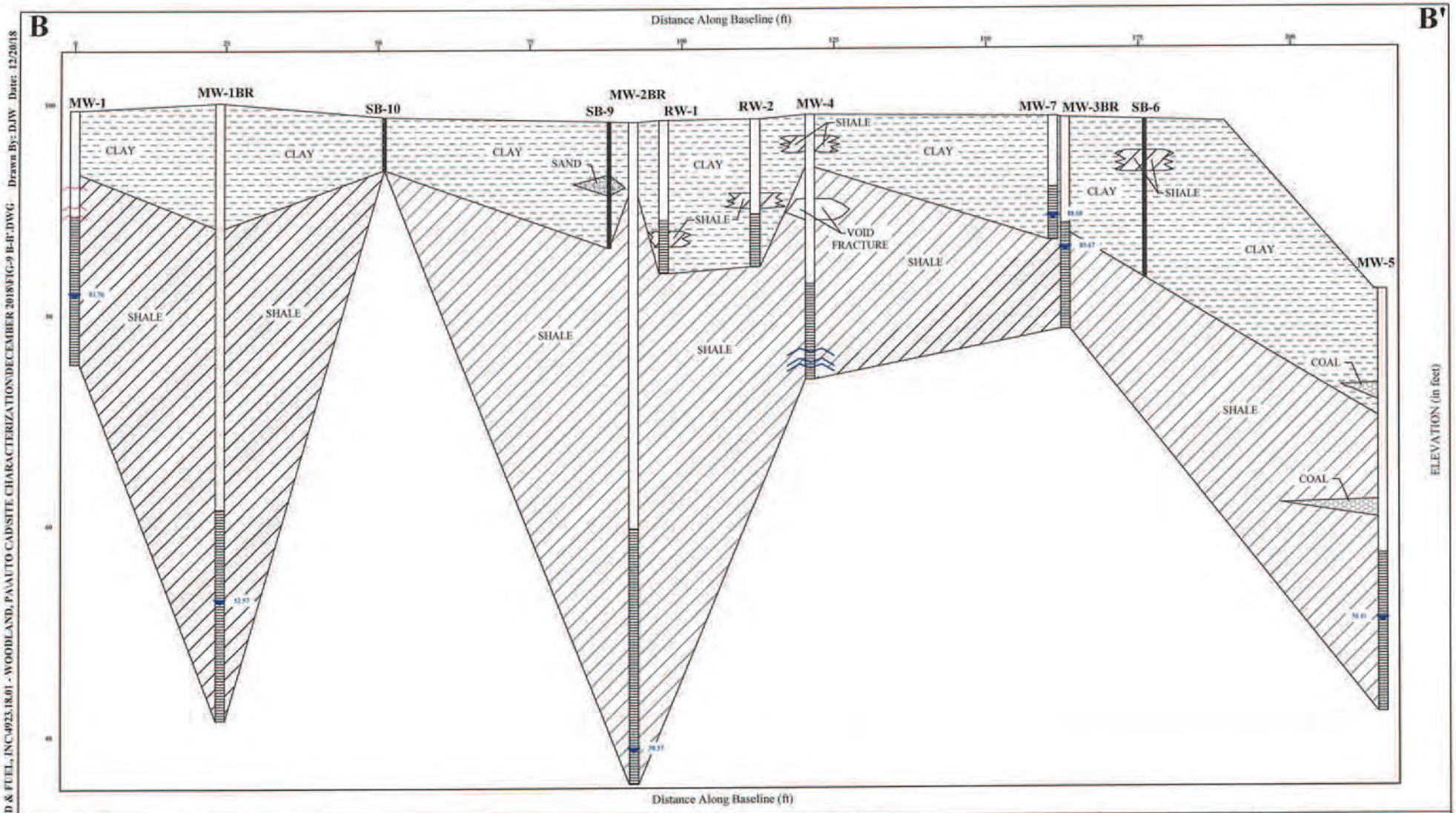
CLAY
CLAY WITH TAN SHALE FRAGMENTS
COAL
SHALE
DEPTH TO WATER
SATURATED VOID FRACTURES
VOID FRACTURES

WOODLAND FOOD AND FUEL

2829 Woodland Bigler Highway
Woodland, PA 16881 Clearfield County

CROSS SECTION A-A'

Figure 8



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LEGEND

CLAY
CLAY WITH GRAY/TAN SHALE FRAGMENTS
COAL
SHALE
SAND
DEPTH TO WATER
SATURATED VOID FRACTURES
VOID FRACTURES

WOODLAND FOOD AND FUEL

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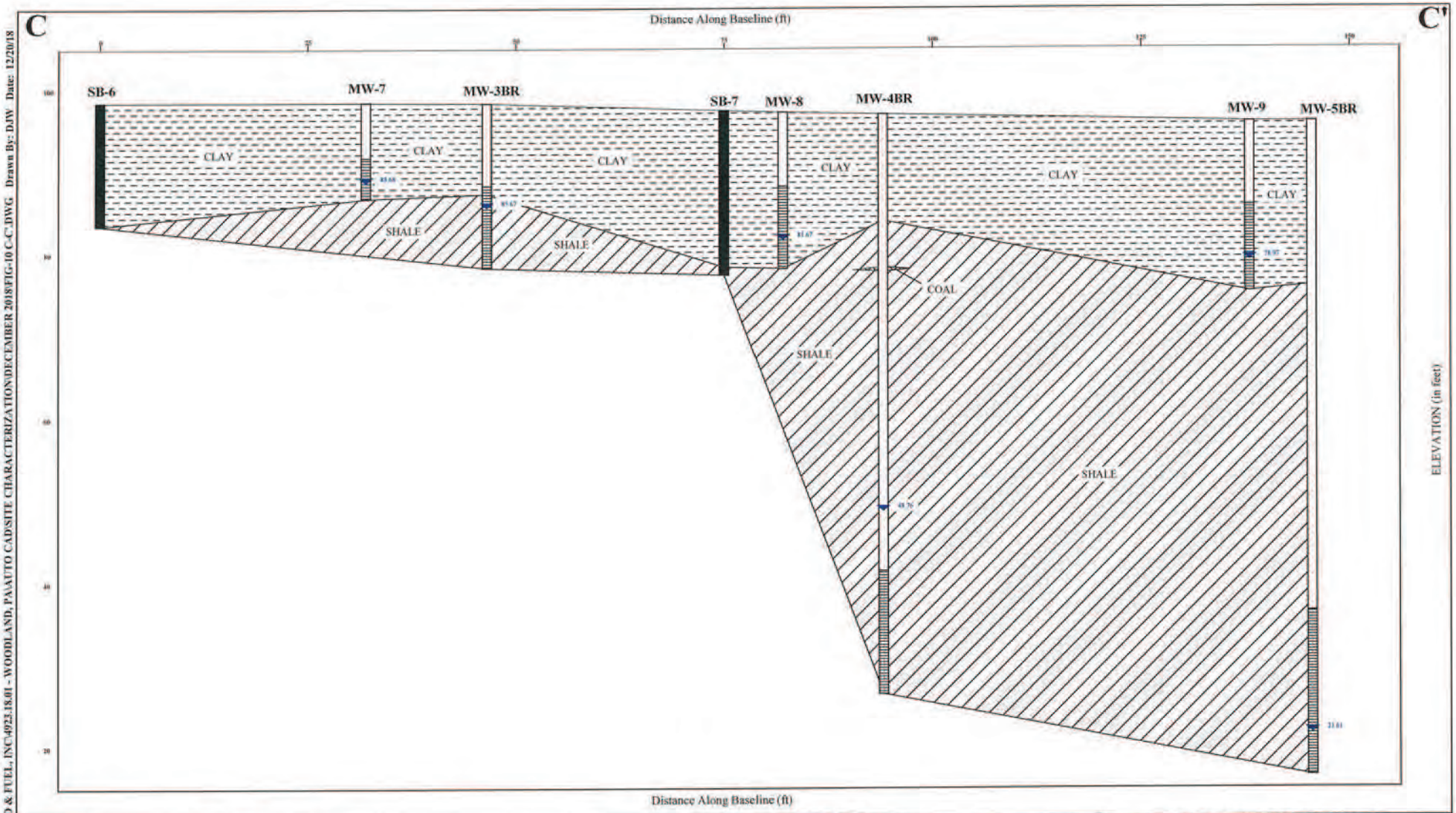
CROSS SECTION B-B'

Figure 9

H:\WWOODLAND FOOD & FUEL, INC\4923.18.01 - WOODLAND, PA\AUTO CAD\SITE CHARACTERIZATION\DECEMBER 2018\FIG-9 B-B'.DWG Drawn By: DJW Date: 12/20/18



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LEGEND

- CLAY
- CLAY WITH GRAY/TAN SHALE FRAGMENTS
- COAL
- SHALE
- SAND
- DEPTH TO WATER
- SATURATED VOID FRACTURES
- VOID FRACTURES

WOODLAND FOOD AND FUEL

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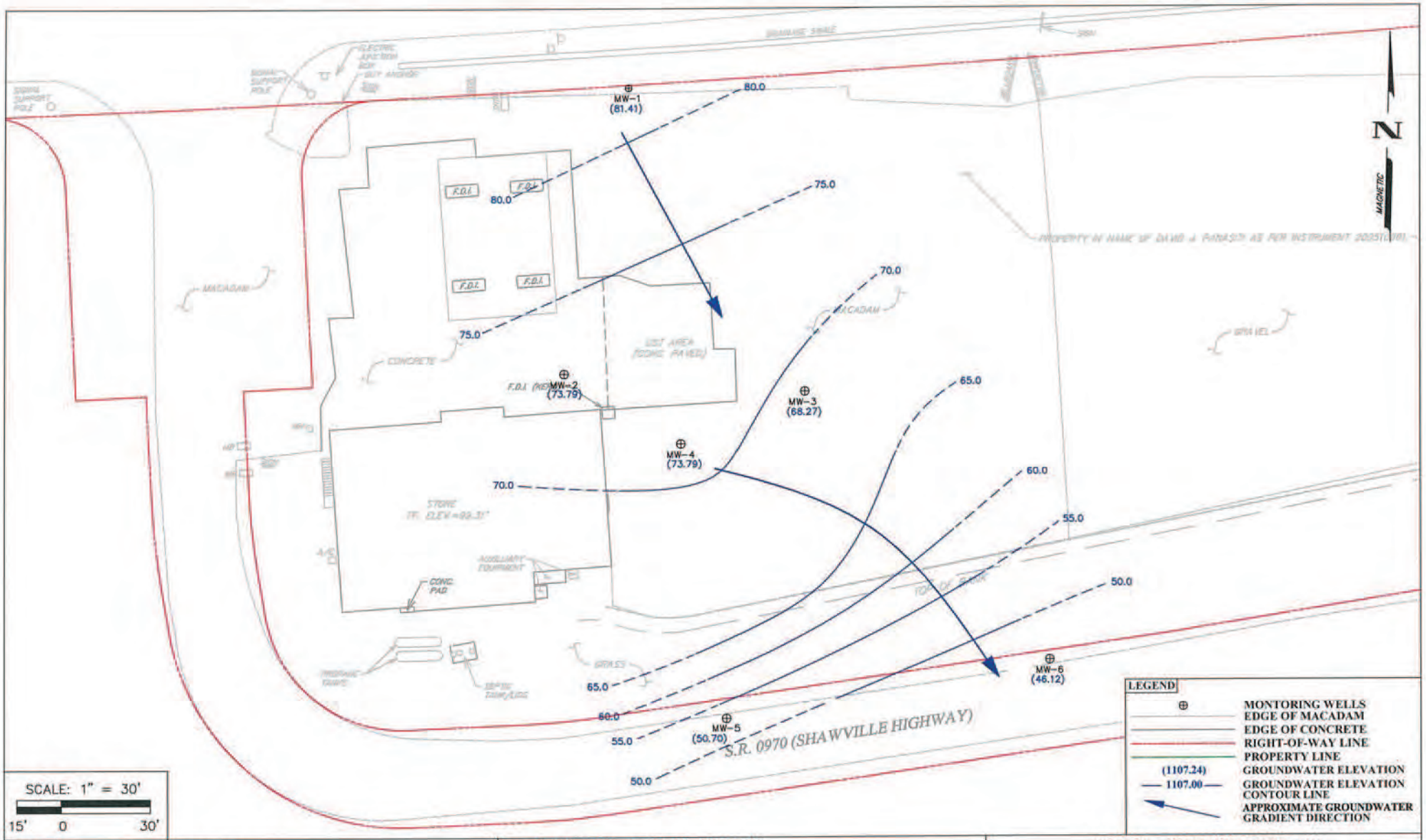
CROSS SECTION C-C'

Figure 10

H:\WWOODLAND FOOD & FUEL, INC\4923.18.01 - WOODLAND, PA\AUTO CAD\SITE CHARACTERIZATION\DECEMBER 2018\FIG-10 C-C'.DWG Drawn By: DJW Date: 12/20/18



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WOODLAND FOOD AND FUEL

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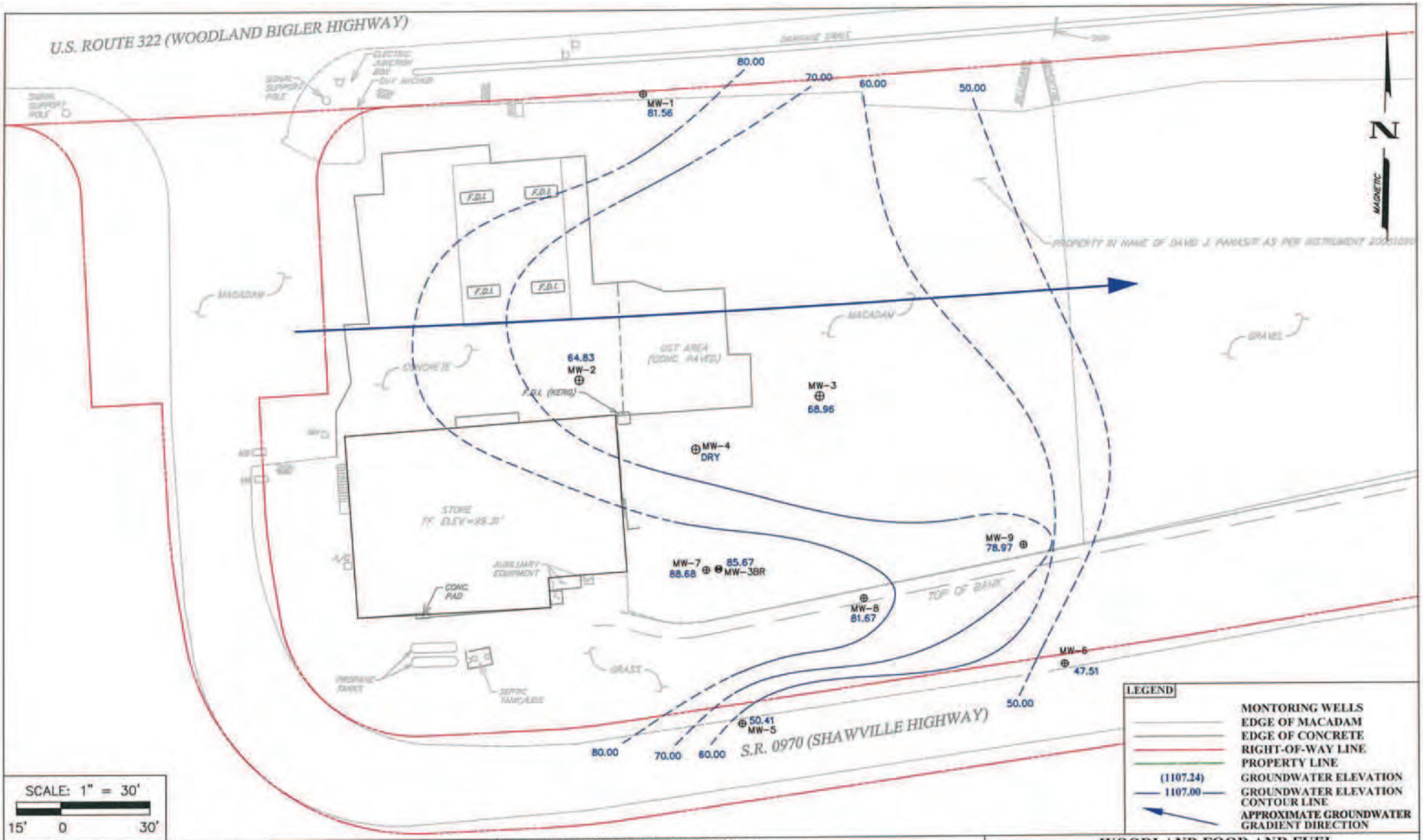
SHALLOW AQUIFER GROUNDWATER ELEVATION CONTOUR MAP

September 10, 2018
Figure 11



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WOODLAND FOOD AND FUEL
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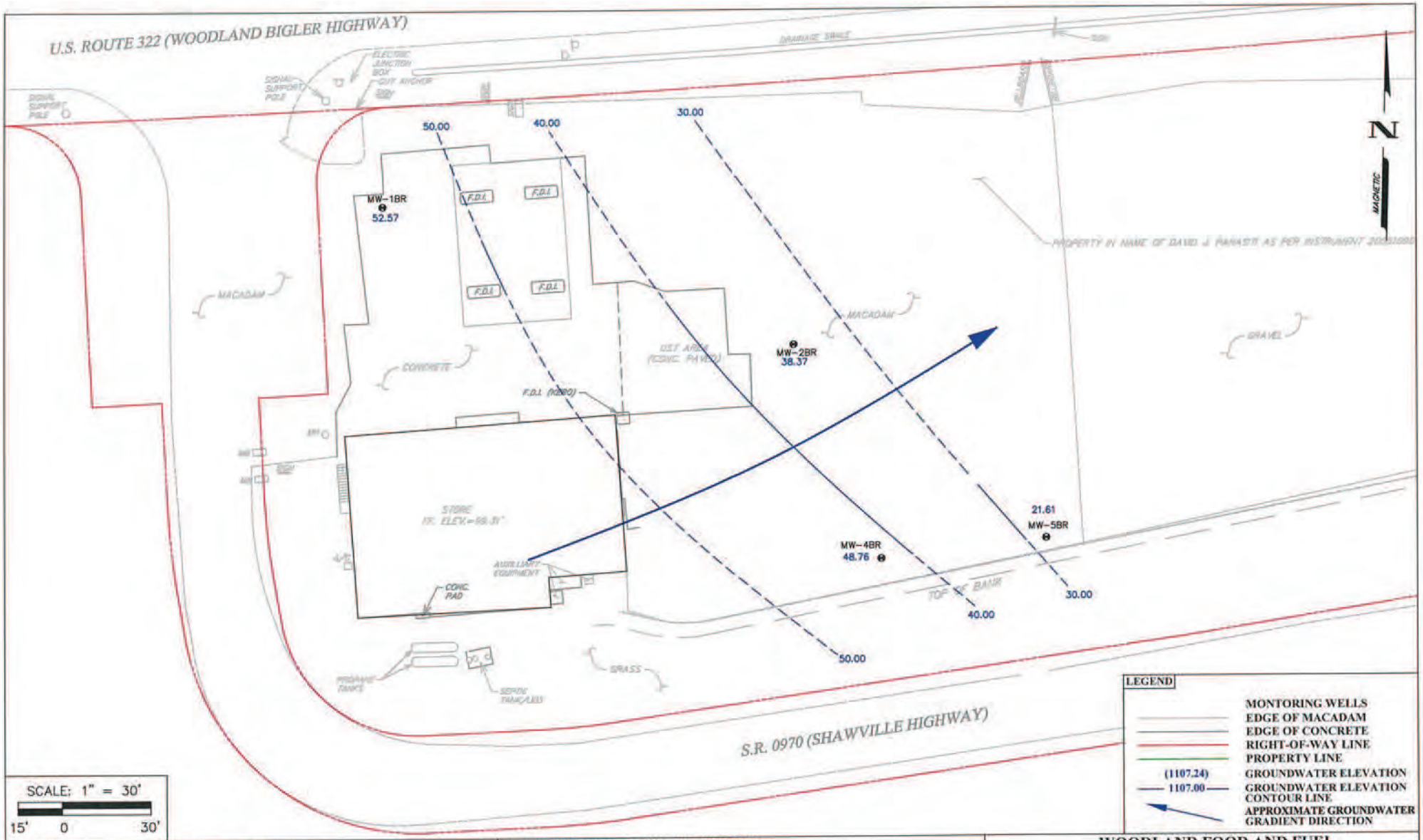
SHALLOW AQUIFER GROUNDWATER ELEVATION CONTOUR MAP
DECEMBER 13, 2018
Figure 12



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WOODLAND FOOD AND FUEL
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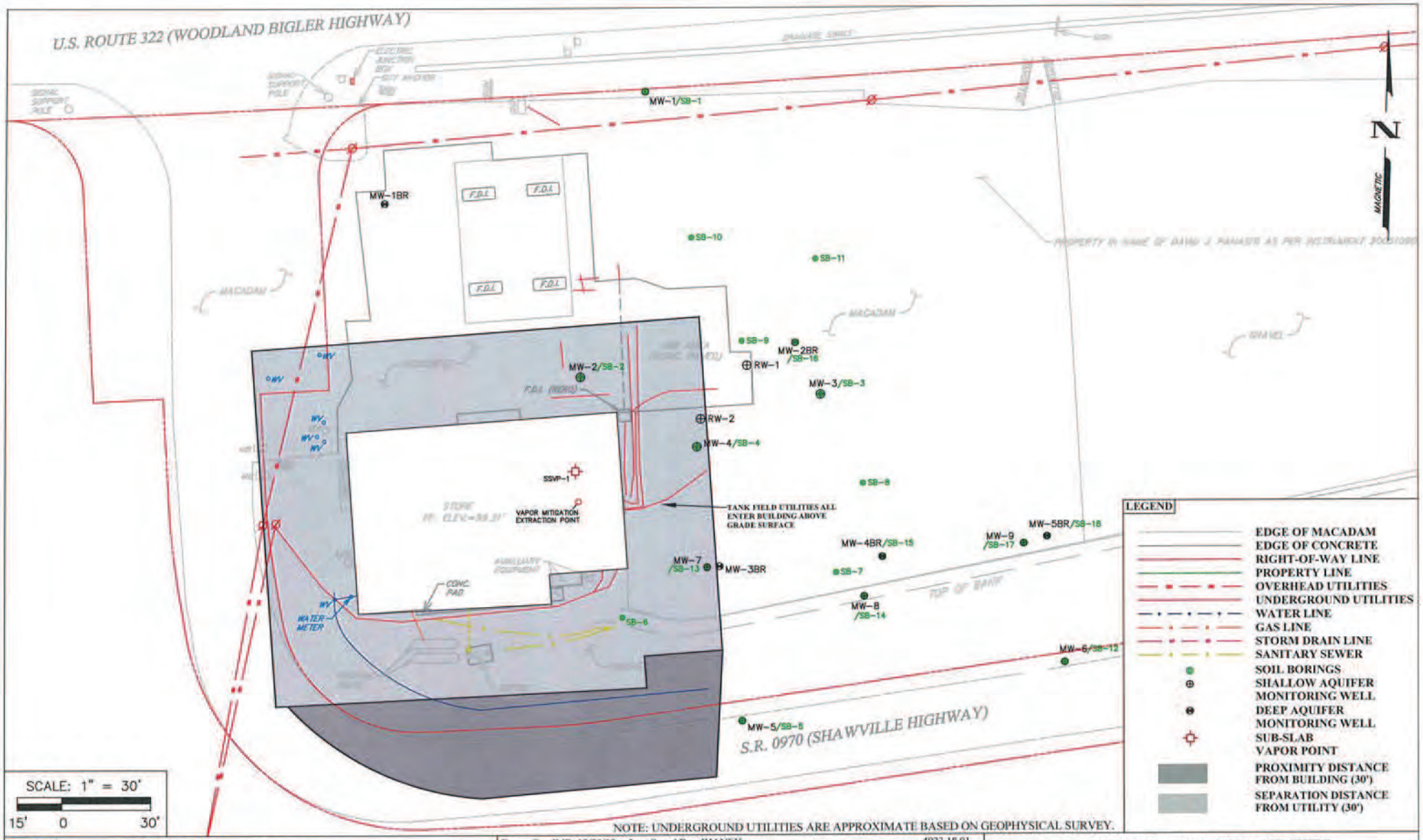
DEEP AQUIFER GROUNDWATER ELEVATION CONTOUR MAP
DECEMBER 13, 2018
Figure 13



NOTE: UNDERGROUND UTILITIES ARE APPROXIMATE BASED ON GEOPHYSICAL SURVEY.

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WOODLAND FOOD AND FUEL
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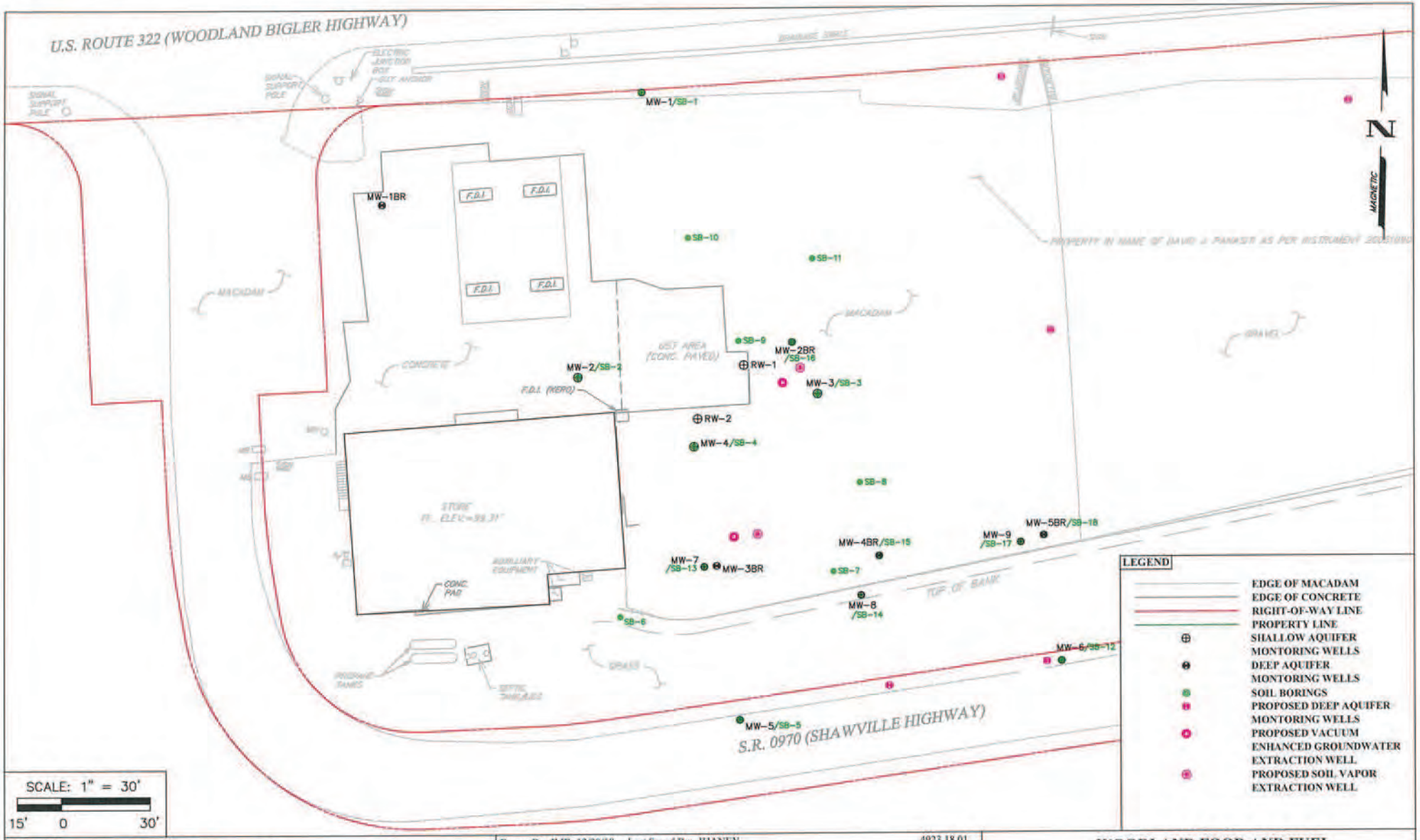
VAPOR INTRUSION SCREENING MAP
Figure 14



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WOODLAND FOOD AND FUEL
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PROPOSED WELL LOCATION MAP
Figure 15

TABLES

MOUNTAIN RESEARCH, LLC

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Table 1

MONITORING WELL CONSTRUCTION SUMMARY
WOODLAND FOOD AND FUEL
WOODLAND, PENNSYLVANIA

MRLLC Project No. 4923.18.01

Monitoring Well	Date Drilled	Total Depth (ft)	Casing Size (in) & Material	Slot Size (in) / Screened Interval (ft)	Depth to Screen (ft)	Drilling Method	Well Type
MW-1	3/9 & 13/2018	24.0	2" PVC	0.010/10-24'	10	Hollow Stem Auger/Air Rotary	Bedrock
MW-2	3/6/2018	36.0	2" PVC	0.010/21-36'	21	Hollow Stem Auger/Air Rotary	Bedrock
MW-3	3/14/2018	30.0	2" PVC	0.010/10-30'	10	Hollow Stem Auger/Air Rotary	Bedrock
MW-4	3/7/2018	25.5	2" PVC	0.010/16-25'	16	Hollow Stem Auger/Air Rotary	Bedrock
MW-5	7/12/2018	40.0	2" PVC	0.010/25-40'	25	Hollow Stem Auger/Air Rotary	Bedrock
MW-6	7/13/2018	40.0	2" PVC	0.010/25-40'	25	Hollow Stem Auger/Air Rotary	Bedrock
MW-7	10/26/2018	11.7	2" PVC	0.010/6.7-11.7	6.7	Hollow Stem Auger	Overburden
MW-8	10/26/2018	19.0	2" PVC	0.010/9-19	9	Hollow Stem Auger	Overburden
MW-9	10/26/2018	20.5	2" PVC	0.010/10-20.5	10	Hollow Stem Auger	Overburden
MW-1BR	10/29/2018	58.5	2" PVC	0.010/38.5-58.5	38.5	Hollow Stem Auger/Air Rotary	Bedrock
MW-2BR	10/22/2018	62.7	2" PVC	0.010/38.5-62.5	38.5	Hollow Stem Auger/Air Rotary	Bedrock
MW-3BR	10/30/2018	20.0	2" PVC	0.010/10-20	10	Hollow Stem Auger/Air Rotary	Bedrock
MW-4BR	10/30/2018	70.5	2" PVC	0.010/55.5-70.5	55.5	Hollow Stem Auger/Air Rotary	Bedrock
MW-5BR	10/23/2018	79.5	2" PVC	0.010/59.5-79.5	59.5	Hollow Stem Auger/Air Rotary	Bedrock
RW-1	1/16/2018	14.5'	4" PVC	0.020/9.5-14.5	9.5	Hollow Stem Auger	Overburden
RW-2	1/16/2018	14.0'	4" PVC	0.020/9-14	9	Hollow Stem Auger	Overburden

Prepared By: JRH 12/12/18

Checked By: MC 12/12/18

Table 2
Aquifer Hydraulic Values from Slug Tests

WOODLAND FOOD AND FUEL, INC.
WOODLAND, PA

MR Project No. 4923.18.01

Summary of Aquifer Test Responses and Analyses

Unconfined Shallow Aquifer

Test Type	Well	Test Phase	Analysis Method	Transmissivity (ft2/d)	b (ft)	K (ft/d)	ln(K)
Slug	MW-2	Falling Head	Bouwer & Rice	1.296	9.50	0.136	-1.992164

Mean ln (hydraulic conductivity) =			-1.992
Geometric mean hydraulic conductivity (K) ft/day =			0.136
Average hydraulic conductivity (K) ft/day =		0.136	
Average saturated aquifer thickness(b) =	9.500		
Average Transmissivity (T = Kb) (ft²/day) =	1.30		

Confined Deep Aquifer

Test Type	Well	Test Phase	Analysis Method	Transmissivity (ft2/d)	b (ft)	K (ft/d)	ln(K)
Slug	MW-3BR	Rising Head	Bouwer & Rice	0.422	6.50	0.065	-2.7346
	MW-4BR	Rising Head	Bouwer & Rice	1.679	12.00	0.140	-1.966827
		Falling Head	Bouwer & Rice	0.608	12.00	0.051	-2.982027

Mean ln (hydraulic conductivity) =			-2.561
Geometric mean hydraulic conductivity (K) ft/day =			0.077
Average hydraulic conductivity (K) ft/day =		0.085	
Average saturated aquifer thickness(b) =	10.167		
Average Transmissivity (T = Kb) (ft²/day) =	0.90		

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b - Saturated Aquifer Thickness
K - Hydraulic Conductivity

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TABLE 3

GROUNDWATER ELEVATION SUMMARY

WOODLAND FOOD AND FUEL
WOODLAND, PA

MR Project No. 4923.18.01

Well ID	Date Measured	Well Construction Total Depth	Static Water Level (ft)	Casing Elevation (ft)	Ground Water Elevation (ft)	Comments
MW-1	3/23/2018	24.0	18.50	99.34	80.84	
	4/4/2018		16.60	99.34	82.74	
	9/10/2018		17.93	99.34	81.41	
	12/6/2018		17.45	99.34	81.89	
	12/13/2018		17.78	99.34	81.56	
MW-2	3/23/2018	36.0	30.09	99.04	68.95	
	4/4/2018		33.50	99.04	65.54	
	9/10/2018		29.65	99.04	69.39	
	12/6/2018		30.41	99.04	68.63	
	12/13/2018		34.21	99.04	64.83	
MW-3	3/23/2018	30.0	28.90	97.92	69.02	
	4/4/2018		25.60	97.92	72.32	
	9/10/2018		25.25	97.92	72.67	
	11/27/2018		25.50	97.92	72.42	Odor
	12/13/2018		28.96	97.92	68.96	
MW-4	3/23/2018	25.5	22.65	98.75	76.10	
	4/4/2018		21.00	98.75	77.75	
	9/10/2018		19.20	98.75	79.55	
	11/27/2018		DRY	98.75	DRY	
	12/6/2018		22.10	98.75	76.65	
	12/1382018		DRY	98.75	DRY	
MW-5	9/10/2018	40.0	32.52	82.00	49.48	
	12/6/2018		31.21	82.00	50.79	
	12/13/2018		31.59	82.00	50.41	
MW-6	9/10/2018	40.0	31.30	78.64	47.34	
	12/6/2018		31.00	78.64	47.64	
	12/13/2018		31.13	78.64	47.51	
MW-7	11/13/2018	11.7	7.10	98.51	91.41	
	11/27/2018		7.10	98.51	91.41	Odor
	12/13/2018		9.83	98.51	88.68	
MW-8	11/13/2018	19.0	14.82	97.24	82.42	
	11/27/2018		13.20	97.24	84.04	
	12/13/2018		15.57	97.24	81.67	
MW-9	11/13/2018	20.5	17.81	95.88	78.07	
	11/27/2018		15.90	95.88	79.98	
	12/13/2018		16.91	95.88	78.97	
MW-1BR	11/13/2018	58.5	53.45	100.07	46.62	
	11/27/2018		50.80	100.07	49.27	
	12/13/2018		47.50	100.07	52.57	
MW-2BR	11/13/2018	62.7	DRY	98.09	DRY	
	11/27/2018		62.60	98.09	35.49	
	12/13/2018		59.72	98.09	38.37	
MW-3BR	11/13/2018	20.0	11.55	98.39	86.84	
	11/27/2018		9.80	98.39	88.59	
	12/13/2018		12.72	98.39	85.67	
MW-4BR	11/13/2018	70.5	48.88	96.97	48.09	
	11/27/2018		48.47	96.97	48.50	
	12/13/2018		48.21	96.97	48.76	
MW-5BR	11/13/2018	79.5	75.50	95.99	20.49	Grab
	11/27/2018		75.00	95.99	20.99	Grab
	12/13/2018		74.38	95.99	21.61	

Prepared By: _____
Checked By: _____

NM - Not Measured
NA - Not Applicable

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TABLE 4

SOIL ANALYTICAL SUMMARY

WOODLAND FOOD & FUEL, INC.
WOODLAND, PA

MR Project No. 4923.18.01

PADEP Residential Used Aquifer Soil to Groundwater Medium Specific Concentrations (MSC)			8,400	74,000	500	100,000	70,000	1,000,000	2,000	600,000	25,000
Residential Direct Contact (0 - 15 Feet)			130,000	2,200,000	57,000	10,000,000	180,000	1,900,000	1,700,000	7,700,000	160,000
Residential Soil Vapor Screening Value (SV_{soil})			3,500	210,000	130	44,000	46,000	990,000	280	2,500,000	25,000
			Sample Parameters								
SAMPLE ID / SAMPLE DEPTH	Sample Date	Total Solids (% Weight)	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Cumene	Naphthalene
SB-1/MW-1(5.0') U	3/9/2018	95.6	46.7	12.4	4.22	74.6	23.6	136	<2.09	6.12	54.8
SB-2/MW-2 (13.0') U	3/6/2018	84.5	15.8	5.21	<2.37	<2.37	<2.37	<7.10	<2.37	<2.37	26.0
SB-3MW-3 (9.0') U	3/12/2018	92.1	<2.17	<2.17	<2.17	5.04	<2.17	<6.52	<2.17	<2.17	<2.17
MW-4/SB-4 (3.5') U	3/7/2018	82.3	<2.43	<2.43	9.36	<2.43	<2.43	<7.29	6.35	<2.43	2.46
SB-5/MW-5 (2.0) U	7/12/2018	83.2	<2.96	<2.96	<2.96	<2.96	<2.96	<8.87	<2.96	<2.96	<2.96
SB-5/MW-5 (13.0) U	7/12/2018	81.9	<2.42	<2.42	<2.42	<2.42	<2.42	<7.27	<2.42	<2.42	<2.42
SB-6 (13.0') U	3/12/2018	96.7	<2.07	<2.07	<2.07	<2.07	<2.07	<6.20	<2.07	<2.07	<2.07
SB-6 (14.5') U	3/12/2018	86.3	<2.32	<2.32	7.06	19.8	<2.32	25.0	<2.32	<2.32	<2.32
SB-7 (15.0') U	3/8/2018	92.4	813	235	1,580	6,360	850	4,690	<2.17	229	224
SB-7 (18.5') U	3/8/2018	93.7	<2.13	<2.13	<2.13	<2.13	<2.13	<6.40	11.1	<2.13	<2.13
SB-8 (9.5') U	3/8/2018	92.9	15.3	4.35	22.5	560	17.1	125	<2.15	<2.15	9.66
SB-8 (12.0') U	3/8/2018	95.8	1,260	41.8	44.0	1,870	57.5	2,620	<2.09	13.4	15.6
SB-9 (6.5') U	3/8/2018	81.9	59,800	10,100	9,440	115,000	24,600	128,000	<2,440	4,820	14,000
SB-9 (11.5') U	3/8/2018	94.3	5,950	896	86.3	3,030	1,310	7,060	4.38	57.0	1,730
SB-10 (2.0) U	7/11/2018	93.8	<2.13	<2.13	<2.13	<2.13	<2.13	<6.40	<2.13	<2.13	<2.13
SB-10 (6.0) U	7/11/2018	91.0	<2.20	<2.20	4.40	31.6	<2.20	6.71	<2.20	<2.20	<2.20
SB-11 (2.0) U	7/11/2018	88.6	<2.26	<2.26	<2.26	5.54	<2.26	<6.77	<2.26	<2.26	<2.26
SB-11 (6.0) U	7/11/2018	94.0	<2.13	<2.13	36.2	104	7.22	35.4	<2.13	<2.13	<2.13
SB-12/MW-6 (9.0) U	7/13/2018	91.7	<2.16	<2.16	<2.16	<2.16	<2.16	<6.48	<2.16	<2.16	<2.16
SB-13/MW-7 (9.0) U	10/26/2018	82.2	29,100	8,470	<2,430	38,100	13,300	86,400	<2,430	2,940	2,740
SB-14/MW-8 (12.0) U	10/26/2018	94.2	<3.06	<3.06	<3.06	<3.06	<3.06	<9.17	<3.06	<3.06	5.83
SB-15/MW-5BR (6.0) U	10/30/2018	93.0	373	35.1	354	3,610	386	2,440	<1.96	15.9	19.8
SB-16 MW-2 BR (7.0) U	10/29/2018	84.9	487	<235	<235	2,080	<235	<706	<235	<235	563
SB-17/MW-9 (19.0) U	10/25/2018	88.0	81.5	25.1	<227	4,110	1,900	10,200	3.27	18.3	3.67
SB-18/MW-5 (17.0) U	10/26/2018	89.1	12,200	48.8	462	18,200	6,130	35,100	4.21	32.9	6.31

All results in micrograms per kilogram (ug/kg)
Shaded = PADEP Medium Specific Concentration (MSC) Exceedance
Bold = Detected
Red = Detection Limit exceeds PADEP MSC
U = Unsaturated Soil
S = Saturated Soil
[ ] = Exceedance of the PADEP Residential Soil Vapor Screening Value (SV_{soil})

Prepared by: JPD 11/14/2018
Checked by: JRH 12/3/2018

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TABLE 5

AQUEOUS SAMPLE ANALYTICAL SUMMARY

WOODLAND FOOD AND FUEL, INC.
WOODLAND, PA

MR Project No. 4923.18.01

		PADEP Residential Used Aquifer Groundwater Medium Specific Concentration (MSC)								
		15	420	5	700	840	20	100	1,000	10,000
Residential Vapor Screening Value (SV_{RW})		340	250	120	700	8,000	32,000	440	140,000	10,000
		Sample Parameter								
Well ID	Sample Date	1,2,4-TMB	1,3,5-TMB	Benzene	Ethylbenzene	Cumene	MTBE	Naphthalene	Toluene	Total Xylenes
MW-1	3/23/2018	133	37.9	76.2	77.5	<20.0	<20.0	20.4	563	487
	4/4/2018	174	44.7	<20.0	34.8	<20.0	<20.0	99.4	63.4	244
	9/10/2018	<2.00	<2.00	<2.00	<2.00	<2.00	3.59	<2.00	<2.00	<6.00
	12/6/2018	<2.00	<2.00	<2.00	<2.00	<2.00	2.71	<2.00	<2.00	<6.00
MW-2	3/23/2018	<2.00	<2.00	<2.00	<2.00	<2.00	3.51	<2.00	3.57	<6.00
	4/4/2018	49.4	22.3	8.67	25.5	2.59	80.6	4.94	20.1	72.7
	9/10/2018	9.25	2.87	<2.00	6.40	<2.00	4.55	<2.00	<2.00	6.48
	12/6/2018	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<6.00
MW-3	3/23/2018	<2.00	<2.00	9.18	<2.00	<2.00	11.7	<2.00	28.0	<6.00
	4/4/2018	3,000	2,260	3,750	4,620	886	34.7	1,560	47,200	26,500
	9/10/2018	1,520	357	2,060	2,240	<200	<200	338	15,700	13,500
	11/27/2018	2,530	637	3,470	2,430	222	<200	573	17,200	15,600
MW-4	3/23/2018	<2.00	<2.00	2.89	<2.00	<2.00	4.70	<2.00	7.51	<6.00
	4/4/2018	680	1,410	626	283	77.2	38.5	43.9	2,800	2,330
	9/10/2018	79.3	23.0	247	85.4	<10.0	44.2	<10.0	1,060	593
	12/6/2018	29.4	9.16	11.4	21.3	3.02	55.1	<2.00	6.86	134
MW-5	8/27/2018	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<6.00
	9/10/2018	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<6.00
	12/6/2018	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<6.00
MW-6	8/27/2018	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<6.00
	9/10/2018	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<6.00
	12/6/2018	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<6.00
MW-7	11/13/2018	17.1	23.0	2.98	4.12	<2.00	<2.00	<2.00	25.5	62.4
	11/27/2018	69.2	52.2	6.62	18.1	2.45	<2.00	4.67	183	471
MW-8	11/13/2018	<2.00	<2.00	3.34	<2.00	<2.00	20.0	<2.00	<2.00	<6.00
	11/27/2018	<2.00	<2.00	23.6	<2.00	<2.00	11.8	<2.00	<2.00	<6.00
MW-9	11/13/2018	<2.00	<2.00	8.92	<2.00	<2.00	49.1	<2.00	5.67	10.0
	11/27/2018	24.6	6.76	130	60.9	3.83	22.3	<2.00	281	271
MW-1BR	11/13/2018	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<6.00
	11/27/2018	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<6.00
MW-3BR	11/13/2018	1,530	388	1,600	2,190	<200	<200	248	15,100	11,300
	11/27/2018	346	144	88.2	166	37.6	<20.0	31.2	588	975
MW-4BR	11/13/2018	266	63.8	748	333	16.2	<10.00	44.7	3,140	2,450
	11/27/2018	<200	<200	478	363	<200	<200	<200	4,470	2,180
MW-5BR	11/13/2018	5.64	<2.00	<2.00	2.96	<2.00	3.05	<2.00	14.4	19.1
	11/27/2018	3.62	<2.00	5.53	3.16	<2.00	6.83	<2.00	39.8	36.1

Prepared By: TAK 12/12/18
Checked By: LML 12/18/18

Bold = Detected
Shaded = Exceeds PADEP MSC
Red = Detection Limit Exceeds PADEP MSC
TMB = Trimethylbenzene
[- - - - - -] = Vapor Intrusion Screening Exceedance

TABLE 6

Sub-Slab Vapor Sample Point Integrity Testing Results

Woodland Food and Fuel
Woodland, PA

MRLLC Project No. 4923.18.01

Vapor Point Identification	Vapor Point Depth Beneath Top of Slab (in)	Date	Helium Concentration in Shroud (ppm)[A]	Purge Rate (mL/min)	Purge Helium Concentration Pre-Sample (ppm) / % of A		Results
SSVP-1	4	12/11/2018	326,000.0	100	2,260	0.01	PASS

Prepared By: JRH 12/19/2018
Checked By: JRH 12/20/2018

TABLE 7

Soil Vapor Sample Analytical Summary
Woodland Food and Fuel

Woodland, PA

MRLLC Project No. 4923.18.01

Residential Sub-Slab Soil Gas SSS Screening Values (SV_{SS} / 10)		0.012	0.037	1.6	0.0028	20	0.36	0.028	0.028	0.4
Non-Residential Sub-Slab Soil Gas SSS Screening Values (SV_{SS} / 10)		0.205*	0.63	23.08*	0.046	280	6	0.40*	0.39	5.64*
SOIL VAPOR SAMPLE IDENTIFICATION	SAMPLE DATE	ANALYTICAL RESULT SUMMARY								
		Benzene	Ethylbenzene	Isopropylbenzene (Cumene)	Naphthalene	Toluene	MTBE	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Total Xylenes
SSVP-1	12/11/2018	<0.0016	<0.0022	<0.0062	<0.0026	<0.0019	<0.0018	<0.0025	<0.0025	<0.0067
SSVP-1 Duplicate	12/11/2018	<0.0016	<0.0022	<0.0062	<0.0026	<0.0019	<0.0018	<0.0025	<0.0025	<0.0067
Vapor Mitigation	12/11/2018	**0.023**	**0.00071**	**0.021**	<0.00052	**0.0028**	<0.00036	<0.00049	**0.00063**	**0.00331**

NOTES:
1. Samples analyzed at a National Environmental Laboratory Accreditation Conference (NELAC) certified laboratory following EPA Method TO-15.
2. Results and MSCs reported in mg/m^3
3. PADEP Screening values taken from the January 18, 2017 Technical Guidance Manual for Vapor Intrusion into Buildings from Groundwater and Soil under Act 2
4. Bold values indicate compound was detected.
5. Sample values for total xylenes are derived by summing results per sample for m&p-xylene and o-xylene.

Prepared By: LML 12/17/2018
Checked By: _____

APPENDIX A

OCTOBER 1996 RELEASE DOCUMENTATION

2530-FM-LRWM0159 4/96

ATTACHMENT 4

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF LAND RECYCLING AND WASTE MANAGEMENT

UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

17-70935
Facility I.D

Bradford Township — Clearfield
Municipality — County

10-25-96
Date Prepared

Amy Boyer
Name of Person Submitting Report
(Please Print)

Perry Petroelum Equipment, Ltd.
Company Name
(If Applicable)

Secretary
Title

Closure Method (Check all that apply):

- ☐ Removal
- ☐ Closure-In-Place
- ☒ Change-In-Service

Site Assessment Results (Check all that apply):

- ☒ No Obvious Contamination - Sample Results Meet Standards/Levels
- ☐ No Obvious Contamination - Sample Results Do Not Meet Standards/Levels
- ☐ Obvious, Localized Contamination - Sample Results Meet Standards/Levels
- ☐ Obvious, Localized Contamination - Sample Results Do Not Meet Standards/Levels
- ☐ Obvious, Extensive Contamination

2530-FM-LRWM0159 4/96

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF LAND RECYCLING AND WASTE MANAGEMENT

DATE RECEIVED: _____

RECEIVED NOV 2 1 1996 Environmental Cleanup

UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

Owners who are permanently closing underground storage tanks may use this form to demonstrate that an underground storage tank closure was performed in accordance with the "Closure Requirements For Underground Storage Tank Systems" document. PLEASE PRINT OR TYPE. COMPLETE ALL QUESTIONS.

SECTION I. Owner/Facility/Tank/Waste Management and Disposal Information

1. Facility ID Number 17-70935 2. Facility Name Woodland Food & Fuel
3. Facility County Clearfield 4. Facility Municipality Bradford Township
5. Facility Address Intersection of Rts. 322 & 970, Woodland, PA 16681
6. Facility Contact Person David Panasiti 7. Facility Telephone Number (814) 857-7714
8. Owner Name Woodland Food & Fuel
9. Owner Mailing Address P.O. Box 310A, Woodland, PA 16681
10. Description of Underground Storage Tanks (Complete for each tank closed)

DATE OF TANK CLOSURE (Month/Day/Year)		N/A	N/A	N/A	
Tank Registration Number		17-70935-001	17-70935-002	17-70935-003	
Estimated Total Capacity (Gallons)		8,000	8,000	4,000	
Substance(s) Stored Throughout Operating Life of Tank (Check All That Apply)	a. Petroleum				
	Unleaded Gasoline	X	X	X	☐
	Leaded Gasoline	☐	☐	☐	☐
	Aviation Gasoline	☐	☐	☐	☐
	Kerosene	☐	☐	☐	☐
	Jet Fuel	☐	☐	☐	☐
	Diesel Fuel	☐	☐	☐	☐
	Fuel Oil No. 1	☐	☐	☐	☐
	Fuel Oil No. 2	☐	☐	☐	☐
	Fuel Oil No. 4	☐	☐	☐	☐
	Fuel Oil No. 5	☐	☐	☐	☐
	Fuel Oil No. 6	☐	☐	☐	☐
	New Motor Oil	☐	☐	☐	☐
	Used Motor Oil	☐	☐	☐	☐
	Other, Please Specify				
NOTE: If Hazardous Substance Block is Checked, Attach Material Safety Data Sheets (MSDS)	b. Hazardous Substance	☐	☐	☐	☐
	Name of Principal CERCLA Substance				
	AND				
	Chemical Abstract Service (CAS) No.				
	c. Unknown	☐	☐	☐	☐
Closure Method (Check Only One)	a. Removal	☐	☐	☐	☐
	b. Closure-in-Place	☐	☐	☐	☐
	c. Change-In-Service	X	X	X	☐
Partial System Closure (Yes or No)		No	No	No	

DATE OF TANK CLOSURE (Month/Day/Year)					
Tank Registration Number					
Estimated Total Capacity (Gallons)					
Substance(s) Stored Throughout Operating Life of Tank (Check All That Apply)	a. Petroleum				
	Unleaded Gasoline	☐	☐	☐	☐
	Leaded Gasoline	☐	☐	☐	☐
	Aviation Gasoline	☐	☐	☐	☐
	Kerosene	☐	☐	☐	☐
	Jet Fuel	☐	☐	☐	☐
	Diesel Fuel	☐	☐	☐	☐
	Fuel Oil No. 1	☐	☐	☐	☐
	Fuel Oil No. 2	☐	☐	☐	☐
	Fuel Oil No. 4	☐	☐	☐	☐
	Fuel Oil No. 5	☐	☐	☐	☐
	Fuel Oil No. 6	☐	☐	☐	☐
	New Motor Oil	☐	☐	☐	☐
	Used Motor Oil	☐	☐	☐	☐
	Other, Please Specify	_____	_____	_____	_____
NOTE: If Hazardous Substance Block is Checked, Attach Material Safety Data Sheets (MSDS)	b. Hazardous Substance	☐	☐	☐	☐
	Name of Principal CERCLA Substance	_____	_____	_____	_____
	AND				
	Chemical Abstract Service (CAS) No.	_____	_____	_____	_____
	c. Unknown	☐	☐	☐	☐
Closure Method (Check Only One)	a. Removal	☐	☐	☐	☐
	b. Closure-in-Place	☐	☐	☐	☐
	c. Change-In-Service	☐	☐	☐	☐
Partial System Closure (Yes or No)					

Yes N/A

11. Briefly describe the storage tank facility and the nature of the operations which were conducted at the facility (both historical and present) including use of tanks: _____

Facility is a gas station.

☒ 12. A site location and sampling map of the site, drawn to scale, is attached. See page 11 of 11.

☐ 13. Original, color photographs of the closure process are attached (i.e, inside of excavation/piping runs, pit water, tanks showing condition).

☒ 14. An amended "Registration of Storage Tanks" form was submitted to the DEP, Bureau of Water Quality Management, Division of Storage Tanks, P.O. Box 8762, Harrisburg, PA 17105-8762.

Date: _____

☐ ☒ 15. If a reportable release was confirmed, the appropriate regional office of DEP was notified by the owner or operator.

Date: _____ Office: _____

Yes N/A

☐ ☒ 16. If tanks were cleaned on-site:

a. Briefly describe the disposition of usable product: _____

b. Briefly describe the disposal of unusable product, sludges, sediments, and wastewater generated during cleaning. Provide the name and permit number of the processing, treatment, storage or disposal facility. (Attach documentation of proper disposal): _____

c. If tank contents were determined/deemed to be hazardous waste, provide:

(1) Generator ID Number: _____

(2) Licensed Hazardous Waste Transporter Name and ID Number: _____

☐ ☒ 17. If tanks were removed from the site for cleaning:

a. Provide the name and permit number of the processing, treatment, storage or disposal facility performing the tank cleaning: _____

b. If tank contents were determined/deemed to be hazardous waste, provide:

(1) Generator ID Number: _____

(2) Licensed Hazardous Waste Transporter Name and ID Number: _____

18. Briefly describe the disposition of tanks/piping (Attach documentation of proper disposal):

_____

☐ ☒ 19. If contaminated soil is excavated:

a. Briefly describe the disposition and amount _____ (tons) of contaminated soil. Provide the name and permit number of the processing, treatment, storage or disposal facility. (Attach documentation of proper disposal):

b. If contaminated soil is determined/deemed to be hazardous waste, provide:

(1) Generator ID Number: _____

(2) Licensed Hazardous Waste Transporter Name and ID Number: _____

Yes N/A

☐ ☒ 20. Briefly describe the disposition of and amount _____ (tons) of uncontaminated soil (attach analyses) _____

I, David Panasiti (Print Name), hereby certify, under penalty of law as provided in 18 Pa. C.S.§4904 (relating to unsworn falsification to authorities) that I am the owner of the above referenced storage tank(s) and that the information provided by me in this closure report (Section I) is true, accurate and complete to the best of my knowledge and belief.

Signature of Tank Owner

11-19-96
Date

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF LAND RECYCLING AND WASTE MANAGEMENT

UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

SECTION II. Tank Handling Information

Facility ID Number 17-70935

Yes N/A

1. Briefly describe the excavation and initial on-site staging of uncontaminated/contaminated soil:
   Soils were excavated around piping. Soils were stockpiled and sampled due to unusual vapors.

2. Briefly describe the method of piping system closure and the closure of the piping systems including the quantity and condition of the piping:
   Lines were removed from the ground and replaced with APT double wall piping.

3. Briefly describe the condition of the tanks and any problems encountered during tank removal:
   N/A

4. Briefly describe the method used to purge the tanks of and monitor for explosive vapors:
   N/A

☐ ☒ 5. If tanks were cleaned on-site:

   a. Briefly describe the tank cleaning process:

   b. If subcontracted, name and address of company that performed the tank cleaning:

☐ ☒ 6. If tanks were closed-in-place, briefly describe the tank fill material:

☒ ☐ 7. If contamination was suspected or observed, the "Notification of Contamination" form was submitted.

SECTION II. (continued)

I, Danny Reisinger, hereby certify, under penalty of law as provided in 18 Pa. C.S.§4904
(Print Name)
(relating to unsworn falsification to authorities) that I am the certified installer who performed the tank handling activities associated with the closure of the above referenced storage tank(s) and that the information provided by me in this closure report (Section II) is true, accurate and complete to the best of my knowledge and belief.

Dan Reisinger
Signature of Certified Installer

10-25-96
Date

4391
Installer Certification Number

14
Company Certification Number

Perry Petroleum Equipment, Ltd.
Company Name

Rts. 17 & 74
Street

Ickesburg, PA 17037
City/Town, State, Zip

(717) 438-3776
Phone

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF LAND RECYCLING AND WASTE MANAGEMENT

UNDERGROUND STORAGE TANK CLOSURE REPORT FORM

SECTION III. Site Assessment Information

Tank Registration #_____ (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)

Facility ID Number 17-70935

A. Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A" if NOT encountered).

Bedrock 0 feet below land surface Water 0 feet below land surface

B. Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).
Length of piping N/A feet

C. TANK SYSTEM REMOVED FROM THE GROUND

1). Was obvious contamination observed while excavating?

☐ NO ----------> Conduct confirmatory sampling----------> See end of this section for options on submission and maintenance of closure records----------> Do not complete item C.2. below.

☐ YES ----------> Report release to DEP within 2 hours ----------> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): _____

_____

_____ ----------> Complete item C.2. below.

2). Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?

☐ YES -------> Remove or remediate contaminated soil ----------> Conduct confirmatory sampling --------> See end of this section for options on submission and maintenance of closure records --------> Call Indemnification Fund (717-787-0763).

☐ NO --------> Continue interim remedial actions ---------> See end of this section for options on submission and maintenance of closure records ----------> Call Indemnification Fund (717-787-0763).

D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE

Was obvious contamination observed during sampling, boring or assessing water depths?

☒ NO --------> Conduct confirmatory sampling ---------> See end of this section for options on submission and maintenance of closure records.

☐ YES ---------> Report release to DEP within 2 hours ---------> Describe contamination observed and likely sources (i.e., tank, piping, dispenser, spills, overfills): _____

_____

_____ ---------->

Continue with corrective action ---------> See end of this section for options on submission and maintenance of closure records ---------> Call Indemnification Fund (717-787-0763).

E. If the answer to C.1. is "no", the answer to C.2. is "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

(a) By the owners and operators who took the UST system out of service;
(b) By the current owners and operators of the UST system site; or
(c) By mailing these records to the implementing agency if they cannot be maintained at the closed facility.

At least one option must be chosen. If option (c) is chosen, the closure report form should be sent to the DEP regional office responsible for the county in which the tank was located.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

Where the results of the site assessment indicate that no obvious contamination or obvious, localized contamination was encountered, but the analytical results of the confirmatory sampling show levels above the statewide standard/action levels, or where there is obvious, extensive contamination, Section 245.310(a)(8) of the CAP regulation requires that details of removal from service be included in the site characterization report. A copy of the completed closure report form should be submitted as part of the site characterization report to satisfy the requirements of Section 245.310(a)(8) of the CAP regulations.

I, Brian D. Sheaffer (Print Name), hereby certify, under penalty of law as provided in 18 Pa. C.S.§4904 (relating to unsworn falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.

Signature of Person Performing Site Assessment	10-25-96 Date
President Title of Person Performing Site Assessment	Perry Petroleum Equipment, Ltd. Name of Company Performing Site Assessment

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

2530-FM-LTR0082 Rev. 5/96
BUREAU OF WASTE RECYCLING AND WASTE MANAGEMENT

NOTIFICATION OF REPORTABLE RELEASE *(Owners and Operators)*
NOTIFICATION OF CONTAMINATION *(Certified Installers and Inspectors)*

RECEIVED
Environmental Cleanup

NOTIFICATION OF REPORTABLE RELEASE *(Owners and Operators)*

On August 21, 1993, the Storage Tank Cleanup Program's Corrective Action Process (CAP) regulations became effective. These regulations establish release reporting requirements for owners and operators of storage tanks and storage tank facilities.

Subsection 245.305(a) of the regulations requires owners or operators to notify the appropriate regional office of the Department as soon as practicable, but no later than 2 hours, after the confirmation of a reportable release.

Subsection 245.305(d) requires owners or operators to provide written notification to the appropriate regional office and to the local municipality, within 15 days of the notice required by Subsection 245.305(a). This form may be used to comply with Subsection 245.305(d).

OWNERS AND OPERATORS (O/O)
PLEASE COMPLETE SECTIONS I, II, IIIA, IIIB, IV, V, VII and VIII.

NOTIFICATION OF CONTAMINATION *(Certified Installers and Inspectors)*

On September 21, 1991, the Storage Tank Program's Certified [illegible] became effective. These regulations establish standards of performa[illegible] certified installers and inspectors of storage tanks and storage tank facilities.

Subsection 245.132(a)(4) of the regulations requires certified installers and inspectors to report to the Department a release of a regulated substance or confirmed or suspected contamination of soil, surface or groundwater from regulated substances observed while performing services as a certified installer or inspector.

This form may be used to comply with Subsection 245.132(a)(4). The Department expects submission of the form within 48 hours of observing suspected or confirmed contamination. Where there is a reportable release, the form may be submitted jointly by the owner, operator, certified installer and certified inspector. In this instance, the form must be received by the appropriate regional office within 15 days of the notice required by Subsection 245.305(a).

CERTIFIED INSTALLERS AND INSPECTORS (I/I)
PLEASE COMPLETE SECTIONS I, II, IIIA, IIIC, VI, VII and VIII.

INSTRUCTIONS

I. **FACILITY INFORMATION** - Record the name, I.D. number and physical location (not P.O. Box) of the facility at which a reportable release has been confirmed or at which suspected or confirmed contamination has been observed. Include the name and phone number of a person to contact at the facility.

II. **OWNER INFORMATION** - Record the name, business address and phone number of the owner of the facility identified in Section I.

III. **REGULATED SUBSTANCE INFORMATION** - Indicate to the best of your knowledge: A) the type of product or products involved; B) the quantity of product or products released; and C) whether the contamination is suspected or confirmed.

IV. **REPORTABLE RELEASE INFORMATION** - Record the date of confirmation of the reportable release, e.g., "08/21/93"; the date and regional office notified; and the date the local municipality (provide name of municipality) was sent a copy of this form. Indicate to the best of your knowledge the extent of contamination resulting from the release of the regulated substance.

V. **INTERIM REMEDIAL ACTIONS** - Indicate the interim remedial actions planned, initiated or completed.

VI. **SUSPECTED/CONFIRMED CONTAMINATION INFORMATION** - Record the date of observation of the suspected or confirmed contamination, e.g., "01/01/94". Indicate to the best of your knowledge the indications of a suspected release or extent of confirmed contamination resulting from the release of the regulated substance.

VII. **ADDITIONAL INFORMATION** - Provide any additional, relevant, available information concerning the reportable release or suspected or confirmed contamination. Include in this section a brief description of the activity that was being conducted when the reportable release was confirmed by the owner or operator or when the suspected/confirmed contamination was observed by the certified installer or inspector, e.g., during a(n) installation, repair or upgrade, removal from service or routine inspection.

VIII. **CERTIFICATION** - Please print your name, and provide your signature and date of signature. If a certified installer/inspector, provide certification number and company certification number.

PLEASE SEND COMPLETED ORIGINAL FORM TO:

PA Department of Environmental Protection
Environmental Cleanup Program
Storage Tank Section
(and the appropriate address below, depending on where the FACILITY is located)

Southeast Region	Northeast Region	Southcentral Region	Northcentral Region	Southwest Region	Northwest Region
Lee Park, Suite 6010 555 North Lane Conshohocken, PA 19428 FAX: 610-832-6143	2 Public Square Wilkes-Barre, PA 18711-0790 FAX: 717-820-4907	One Ararat Boulevard Harrisburg, PA 17110 FAX: 717-540-7492	208 W. Third Street, Suite 101 Williamsport, PA 17701 FAX: 717-327-3565	400 Waterfront Drive Pittsburgh, PA 15222 FAX: 412-442-4194	230 Chestnut Street Meadville, PA 16335 FAX: 814-332-6121
Counties Bucks, Chester, Delaware, Montgomery, Philadelphia	**Counties** Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne, Wyoming	**Counties** Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry, York	**Counties** Bradford, Cameron, Centre, Clinton, Clearfield, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga, Union	**Counties** Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington, Westmoreland	**Counties** Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango, Warren

I. FACILITY INFORMATION (Both O/O and I/I)

Facility Name: Woodland Food & Fuel
Facility I.D. Number: 17-70935
Street Address (P.O. Box not acceptable): Routes 970 & 322
City: Woodland
State: PA
Zip Code: 16681
County: Clearfield
Municipality: Bradford Twp.
Contact Person: Jeff Powell
Phone Number: (814) 857-7714

II. OWNER INFORMATION (Both O/O and I/I)

Owner Name: ~~J. J. Powell~~ DAVID PANASITI
Address: ~~P.O. Box 30~~ PO Box 310A
City: ~~Phillipsburg~~ Woodland
State: ~~PA~~
Zip Code: ~~16866~~ 16681
Phone Number: ~~(300) 432 0866~~ (814) 857-7714

III. REGULATED SUBSTANCE INFORMATION

A. Type of Product(s) Involved (Mark All That Apply ☒): Both O/O and I/I		B. Quantity (Gallons) of Product(s) Released: O/O Only	C. Contamination Suspected [S] or Confirmed [C]: I/I Only	
Leaded Gasoline	☐		[S]	[C]
Unleaded Gasoline	XX		XX [S]	[C]
Aviation Gasoline	☐		[S]	[C]
Kerosene	☐		[S]	[C]
Jet Fuel	☐		[S]	[C]
Diesel Fuel	☐		[S]	[C]
New Motor Oil	☐		[S]	[C]
Used Motor Oil	☐		[S]	[C]
Fuel Oil No. 1	☐		[S]	[C]
Fuel Oil No. 2	☐		[S]	[C]
Fuel Oil No. 4	☐		[S]	[C]
Fuel Oil No. 5	☐		[S]	[C]
Fuel Oil No. 6	☐		[S]	[C]
Other (Specify) _____	☐		[S]	[C]
Unknown	☐		[S]	[C]

IV. REPORTABLE RELEASE INFORMATION (O/O Only)

Date Reportable Release was Confirmed: ___/___/___ (m d y)

Date Owner/Operator Verbally Notified Appropriate Regional Office of Reportable Release and Office Notified:

Date ___/___/___ (m d y) Office _____

Date Owner/Operator Sent Copy of this Written Notification to Local Municipality and Name of Municipality Notified:

Date ___/___/___ (m d y) Municipality _____

Environmental Impacts (Mark All That Apply ☒):

- Soil ☐
- Sediment ☐
- Surface Water ☐
- Ground Water ☐
- Water Supplies ☐

V. INTERIM REMEDIAL ACTIONS (O/O Only)

(Mark All That Apply ☒):

	Planned	Initiated	Completed	Not Applicable
Regulated Substance Removed from Storage Tanks	☐	☐	☐	☐
Fire, Explosion and Safety Hazards Mitigated	☐	☐	☐	☐
Contaminated Soil Excavated	☐	☐	☐	☐
Free Product Recovered	☐	☐	☐	☐
Temporary Water Supplies Provided	☐	☐	☐	☐
Other (Specify) _____	☐	☐	☐	☐

VI. SUSPECTED / CONFIRMED CONTAMINATION INFORMATION (I/I Only)

Date of Observation of Suspected/Confirmed Contamination: 10 / 8 / 96 (m d y)

Indication of Suspected Contamination (Mark All That Apply ☒):

- Unusual Level of Vapors XX
- Erratic Behavior of Product Dispensing Equipment ☐
- Release Detection Results Indicate a Release ☐
- Discovery of Holes in the Storage Tank ☐
- Other (Specify) _____ ☐

Extent of Confirmed Contamination (Mark All That Apply ☒):

- Product Stained or Product Saturated Soil or Backfill ☐
- Ponded Product ☐
- Free Product or Sheen on Ponded Water ☐
- Free Product or Sheen on the Ground Water Surface ☐
- Free Product or Sheen on Surface Water ☐
- Other (Specify) _____ ☐

2530-FM-LRWM0082 Rev. 5/96

VII. ADDITIONAL INFORMATION (Both O/O and I/I)

Include a brief description of the activity that was being conducted when the reportable release was confirmed by the owner or operator or when the suspected/confirmed contamination was observed by the certified installer or inspector, e.g., during a(n) installation, repair or upgrade, removal from service or routine inspection.

While removing an island, encountered unusual vapors beneath the island in the dispenser area.

An estimated 40 ton of soil was stockpiled on plastic at the site and sampled.

VIII. CERTIFICATION (Both O/O and I/I)

I, DAVID J. PANASITI (Print Name), hereby certify, under penalty of law as provided in 18 Pa. C.S.A. §4904(relating to unsworn falsification to authorities) that I am the owner or operator of the above referenced storage tank facility and that the information provided by me in this notification is true, accurate and complete to the best of my knowledge and belief.

Signature of Owner or Operator — Date: 10/17/96

I, Danny Reisinger (Print Name), hereby certify, under penalty of law as provided in 18 Pa. C.S.A. §4904 (relating to unsworn falsification to authorities) that I am the certified installer who performed tank handling activities at the above referenced storage tank facility and that the information provided by me in this notification is true, accurate and complete to the best of my knowledge and belief.

Signature of Certified Installer: Danny E Reisinger — Date: 10/17/96

Installer Certification Number: 4391 — Company Certification Number: 14

I, _____ (Print Name), hereby certify, under penalty of law as provided in 18 Pa. C.S.A. §4904 (relating to unsworn falsification to authorities) that I am the certified inspector who performed inspection activities at the above referenced storage tank facility and that the information provided by me in this notification is true, accurate and complete to the best of my knowledge and belief.

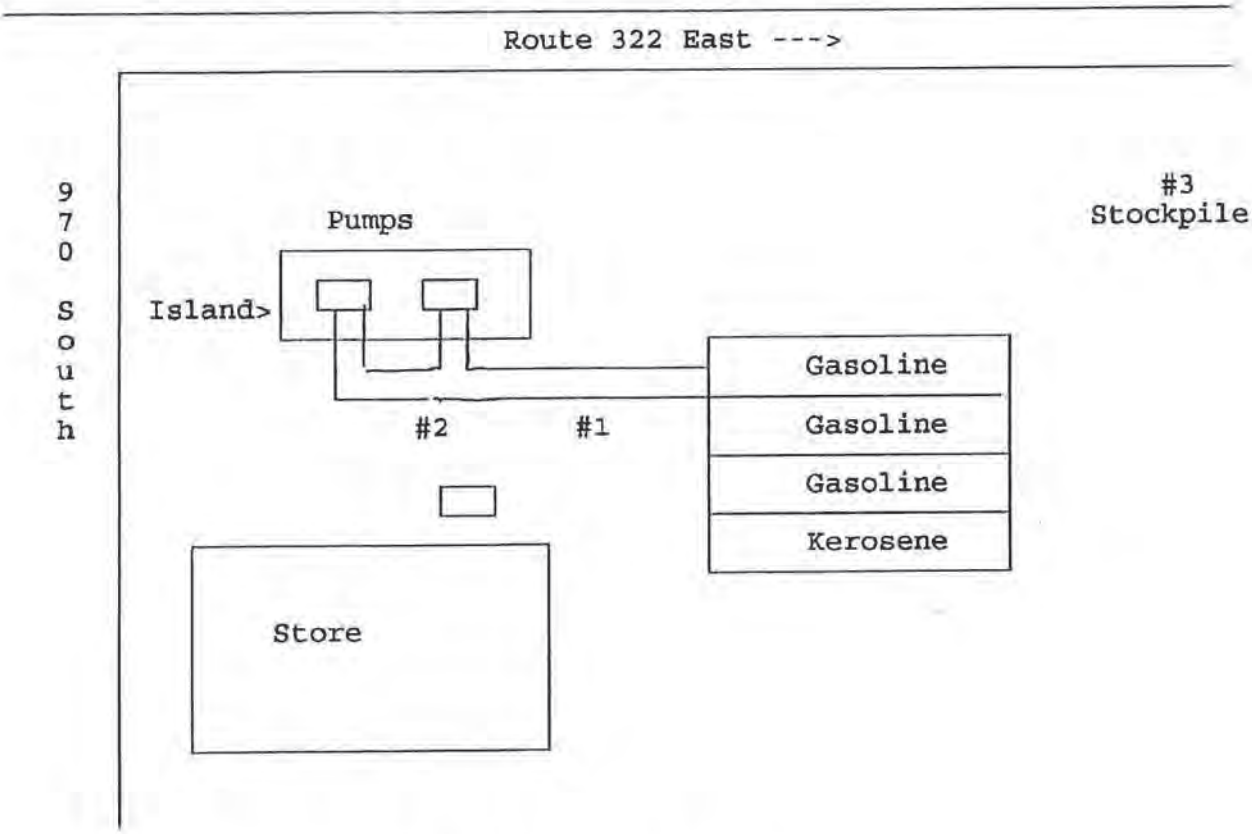
Signature of Certified Inspector — Date

Inspector Certification Number — Company Certification Number

SITE MAP
Scale = None

LOCATION: Woodland Food & Fuel

FACILITY ID#: 17-70935



****** SAMPLE ANALYSIS ******

#1 - taken beneath gasoline lines
#2 - taken beneath gasoline lines
#3 - taken from stockpile (approximately 40 - 50 tons)

CHEMSPEC
Analytical Laboratories
PH: (717) 671-9633 • FAX: (717) 671-9635

Chain of Custody Report

ChemSpec Analytical Laboratories, Inc. • 6130 Old Jonestown Road, Suite D • Paxtonia Business Center • Harrisburg, PA 17112

C1678

Client:	Perry Petroleum	Project Manager:	Woodland Food + Fuel	Turnaround Time Requested (Please Circle): Normal Rush (Rush Results subject to prior approval and surcharge)
Address:		Project Name		
		Project Number:		
		Sampler(s):		Rush Results To:
Phone:	438-3776	P.O #		Fax:
Fax:	438-3930			Phone:

	Sample Identification Description/Locations	Date Collected	Time Collected	Total # of Containers	Matrix	Pres.	Analysis Requested: VOC	SVOC											Remarks
1	1	10-10-96	–	1	Soil	–													
2	2	"	–	"	"	–													
3	3 SP	"	–	"	"	–													
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			

Comments
Samples were taken from beneath gasoline piping and from a stockpile.

Send Bill To		Relinquished By:	Date	Time	Received By:	Date	Time
		Amy M Boyer	10/11/96		K Marshall	10/11	1152
		Relinquished By:	Date	Time	Received By:	Date	Time
Phone:		Relinquished By:	Date	Time	Received By:	Date	Time
Fax:					[illegible]	10/14/96	9:15 AM

Original - Laboratory Yellow - Report Copy Pink - Customer Copy

CHEMSPEC
Analytical Laboratories, Inc.

Laboratory Results Summary

Mr. Brian Sheaffer
Perry Petroleum Equipment, Ltd.
Route 17, P. O. Box 208
Ickesburg, PA 17037

Project Manager: n/a
Project Name: **Woodland Food & Fuel**
Project Number: n/a
Sampler: n/a
Date Sampled: October 10, 1996
Time Sampled: n/a
Date Received: October 14, 1996
Time Received: 9:15 AM
Analyst: Terry Osenbach

Analytical Testing Parameters

Selected PA DEP UST Parameters: Unleaded Gasoline

Sample ID: **C1678-01** • 1

Test / Parameter	Result	Units	MDL	Method	Test Date	Analyst
MTBE	<2.50	ppb	2.50	EPA 8260A	October 17, 1996	TJO
Benzene	<2.50	ppb	2.50	EPA 8260A	October 17, 1996	TJO
Toluene	<2.50	ppb	2.50	EPA 8260A	October 17, 1996	TJO
Ethylbenzene	<2.50	ppb	2.50	EPA 8260A	October 17, 1996	TJO
m,p-Xylene	<5.00	ppb	5.00	EPA 8260A	October 17, 1996	TJO
o-Xylene	<2.50	ppb	2.50	EPA 8260A	October 17, 1996	TJO
Isopropylbenzene	<2.50	ppb	2.50	EPA 8260A	October 17, 1996	TJO
Naphthalene	<2.50	ppb	2.50	EPA 8260A	October 17, 1996	TJO
Benzo(a)anthracene	<20.0	ppb	20.0	EPA 8270B	October 21, 1996	TJO
Benzo(a)pyrene	<2.00	ppb	2.00	EPA 8270B	October 21, 1996	TJO
% Moisture	**9.06**	%	0.01	EPA 160.3	October 15, 1996	KAM

ppb = Parts per Billion = µg/Kg (Soil)

The **MDL** is the **Method Detection Limit**, defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.

Soil results based on dry weights, as performed by **EPA 160.3**

Selected PA DEP UST Parameters: Unleaded Gasoline

Sample ID: **C1678-02** • 2

Test / Parameter	Result	Units	MDL	Method	Test Date	Analyst
MTBE	**3.88**	ppb	2.50	EPA 8260A	October 17, 1996	TJO
Benzene	<2.50	ppb	2.50	EPA 8260A	October 17, 1996	TJO
Toluene	**4.81**	ppb	2.50	EPA 8260A	October 17, 1996	TJO
Ethylbenzene	**3.00**	ppb	2.50	EPA 8260A	October 17, 1996	TJO
m,p-Xylene	<5.00	ppb	5.00	EPA 8260A	October 17, 1996	TJO
o-Xylene	**2.71**	ppb	2.50	EPA 8260A	October 17, 1996	TJO
Isopropylbenzene	**2.99**	ppb	2.50	EPA 8260A	October 17, 1996	TJO
Naphthalene	<2.50	ppb	2.50	EPA 8260A	October 17, 1996	TJO
Benzo(a)anthracene	<20.0	ppb	20.0	EPA 8270B	October 21, 1996	TJO
Benzo(a)pyrene	<2.00	ppb	2.00	EPA 8270B	October 21, 1996	TJO
% Moisture	**7.42**	%	0.01	EPA 160.3	October 15, 1996	KAM

ppb = Parts per Billion = µg/Kg (Soil)

The **MDL** is the **Method Detection Limit**, defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.

Soil results based on dry weights, as performed by **EPA 160.3**.

Reviewed and reported by:

Terry Osenbach, Laboratory Director
PADEP Lab No. 22-478

6130 Old Jonestown Road, Suite D • Paxtonia Business Center • Harrisburg, PA 17112 • Phone: (717) 671-9633 • Fax: (717) 671-9635

CHEMSPEC
Analytical Laboratories, Inc.

Laboratory Results Summary

Woodland Food & Fuel • C1678

Analytical Testing Parameters

Selected PA DEP UST Parameters: Unleaded Gasoline

Sample ID: **C1678-03** • SP

Test / Parameter	Result	Units	MDL	Method	Test Date	Analyst
MTBE	**60.3**	ppb	2.50	EPA 8260A	October 17, 1996	TJO
Benzene	**6.17**	ppb	2.50	EPA 8260A	October 17, 1996	TJO
Toluene	**32.5**	ppb	2.50	EPA 8260A	October 17, 1996	TJO
Ethylbenzene	**35.8**	ppb	2.50	EPA 8260A	October 17, 1996	TJO
m,p-Xylene	**55.1**	ppb	5.00	EPA 8260A	October 17, 1996	TJO
o-Xylene	**36.6**	ppb	2.50	EPA 8260A	October 17, 1996	TJO
Isopropylbenzene	**24.2**	ppb	2.50	EPA 8260A	October 17, 1996	TJO
Naphthalene	**16.9**	ppb	2.50	EPA 8260A	October 17, 1996	TJO
Benzo(a)anthracene	<20.0	ppb	20.0	EPA 8270B	October 21, 1996	TJO
Benzo(a)pyrene	<20.0	ppb	20.0	EPA 8270B	October 21, 1996	TJO
% Moisture	**21.43**	%	0.01	EPA 160.3	October 15, 1996	KAM

ppb = Parts per Billion = µg/Kg (Soil)

The MDL is the **Method Detection Limit**, defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.

Soil results based on dry weights, as performed by **EPA 160.3**

Reviewed and reported by:

Terry Osenbach, Laboratory Director
PADEP Lab No. 22-478

6130 Old Jonestown Road, Suite D • Paxtonia Business Center • Harrisburg, PA 17112 • Phone: (717) 671-9633 • Fax: (717) 671-9635

AFFILIATE PEI

Perry Petroleum Equipment, Ltd.

Rt. #17, PO Box 208, Ickesburg, PA 17037

Phone: (717) 438-3776
FAX: (717) 438-3930

TIP
TANK INSTALLERS OF PENNSYLVANIA
TIP Certified

FAX MEMO

TO: Scott Ferguson

FROM: Brian Shoaff

SUBJECT: Suspected Contamination Report

 # OF PAGES: -4-

DATE: 10-18-96

COMMENTS:

Client # 26028

ACTION REQUIRED _____

FOR YOUR INFORMATION _____

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

2530-FM-LRWM0082 Rev. 5/96
BUREAU OF LAND RECYCLING AND WASTE MANAGEMENT

NOTIFICATION OF REPORTABLE RELEASE *(Owners and Operators)*
NOTIFICATION OF CONTAMINATION *(Certified Installers and Inspectors)*

NOTIFICATION OF REPORTABLE RELEASE *(Owners and Operators)*

On August 21, 1993, the Storage Tank Cleanup Program's Corrective Action Process (CAP) regulations became effective. These regulations establish release reporting requirements for owners and operators of storage tanks and storage tank facilities.

Subsection 245.305(a) of the regulations requires owners or operators to notify the appropriate regional office of the Department as soon as practicable, but no later than 2 hours, after the confirmation of a reportable release.

Subsection 245.305(d) requires owners or operators to provide written notification to the appropriate regional office and to the local municipality, within 15 days of the notice required by Subsection 245.305(a). This form may be used to comply with Subsection 245.305(d).

OWNERS AND OPERATORS (O/O)
PLEASE COMPLETE SECTIONS I, II, IIIA, IIIB, IV, V, VII and VIII.

NOTIFICATION OF CONTAMINATION *(Certified Installers and Inspectors)*

On September 21, 1991, the Storage Tank Program's Certification regulations became effective. These regulations establish standards of performance for certified installers and inspectors of storage tanks and storage tank facilities.

Subsection 245.132(a)(4) of the regulations requires certified installers and inspectors to report to the Department a release of a regulated substance or confirmed or suspected contamination of soil, surface or groundwater from regulated substances observed while performing services as a certified installer or inspector.

This form may be used to comply with Subsection 245.132(a)(4). The Department expects submission of the form within 48 hours of observing suspected or confirmed contamination. Where there is a reportable release, the form may be submitted jointly by the owner, operator, certified installer and certified inspector. In this instance, the form must be received by the appropriate regional office within 15 days of the notice required by Subsection 245.305(a).

CERTIFIED INSTALLERS AND INSPECTORS (I/I)
PLEASE COMPLETE SECTIONS I, II, IIIA, IIIC, VI, VII and VIII.

INSTRUCTIONS

I. **FACILITY INFORMATION** - Record the name, I.D. number and physical location (not P.O. Box) of the facility at which a reportable release has been confirmed or at which suspected or confirmed contamination has been observed. Include the name and phone number of a person to contact at the facility.

II. **OWNER INFORMATION** - Record the name, business address and phone number of the owner of the facility identified in Section I.

III. **REGULATED SUBSTANCE INFORMATION** - Indicate to the best of your knowledge: A) the type of product or products involved; B) the quantity of product or products released; and C) whether the contamination is suspected or confirmed.

IV. **REPORTABLE RELEASE INFORMATION** - Record the date of confirmation of the reportable release, e.g., "08/21/93"; the date and regional office notified; and the date the local municipality (provide name of municipality) was sent a copy of this form. Indicate to the best of your knowledge the extent of contamination resulting from the release of the regulated substance.

V. **INTERIM REMEDIAL ACTIONS** - Indicate the interim remedial actions planned, initiated or completed.

VI. **SUSPECTED/CONFIRMED CONTAMINATION INFORMATION** - Record the date of observation of the suspected or confirmed contamination, e.g., "01/01/94". Indicate to the best of your knowledge the indications of a suspected release or extent of confirmed contamination resulting from the release of the regulated substance.

VII. **ADDITIONAL INFORMATION** - Provide any additional, relevant, available information concerning the reportable release or suspected or confirmed contamination. Include in this section a brief description of the activity that was being conducted when the reportable release was confirmed by the owner or operator or when the suspected/confirmed contamination was observed by the certified installer or inspector, e.g., during a(n) installation, repair or upgrade, removal from service or routine inspection.

VIII. **CERTIFICATION** - Please print your name, and provide your signature and date of signature. If a certified installer/inspector, provide certification number and company certification number.

PLEASE SEND COMPLETED ORIGINAL FORM TO:

PA Department of Environmental Protection
Environmental Cleanup Program
Storage Tank Section
(and the appropriate address below, depending on where the FACILITY is located)

Southeast Region	Northeast Region	Southcentral Region	Northcentral Region	Southwest Region	Northwest Region
Lee Park, Suite 6010 555 North Lane Conshohocken, PA 19428 FAX: 610-832-6143	2 Public Square Wilkes-Barre, PA 18711-0790 FAX: 717-826-4907	One Ararat Boulevard Harrisburg, PA 17110 FAX: 717-540-7692	208 W. Third Street, Suite 101 Williamsport, PA 17701 FAX: 717-327-3565	400 Waterfront Drive Pittsburgh, PA 15222 FAX: 412-442-4194	230 Chestnut Street Meadville, PA 16335 FAX: 814-332-6121
Counties Bucks, Chester, Delaware, Montgomery, Philadelphia	**Counties** Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne, Wyoming	**Counties** Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry, York	**Counties** Bradford, Cameron, Centre, Clinton, Clearfield, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga, Union	**Counties** Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington, Westmoreland	**Counties** Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango, Warren

I. FACILITY INFORMATION (Both O/O and I/I)

Facility Name: Woodland Food & Fuel
Facility I.D. Number: 17-70935
Street Address (P.O. Box not acceptable): Routes 970 & 322
City: Woodland
State: PA
Zip Code:
County: Clearfield
Municipality: Bradford Twp.
Contact Person: Jeff Powell
Phone Number: 814 857 7714

II. OWNER INFORMATION (Both O/O and I/I)

Owner Name: J. J. Powell
Address: P.O. Box 30
City: Phillipsburg
State: PA
Zip Code: 16866
Phone Number:

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III. REGULATED SUBSTANCE INFORMATION

A. Type of Product(s) Involved (Mark All That Apply ☒): Both O/O and I/I		B. Quantity (Gallons) of Product(s) Released: O/O Only	C. Contamination Suspected [S] or Confirmed [C]: I/I Only	
Leaded Gasoline	☐		[S]	[C]
Unleaded Gasoline*	XX		XX [S]	[C]
Aviation Gasoline	☐		[S]	[C]
Kerosene	☐		[S]	[C]
Jet Fuel	☐		[S]	[C]
Diesel Fuel	☐		[S]	[C]
New Motor Oil	☐		[S]	[C]
Used Motor Oil	☐		[S]	[C]
Fuel Oil No. 1	☐		[S]	[C]
Fuel Oil No. 2	☐		[S]	[C]
Fuel Oil No. 4	☐		[S]	[C]
Fuel Oil No. 5	☐		[S]	[C]
Fuel Oil No. 6	☐		[S]	[C]
Other (Specify) _____	☐		[S]	[C]
Unknown	☐		[S]	[C]

IV. REPORTABLE RELEASE INFORMATION (O/O Only)

Date Reportable Release was Confirmed: ___/___/___ (m d y)

Date Owner/Operator Verbally Notified Appropriate Regional Office of Reportable Release and Office Notified:

Date ___/___/___ (m d y) Office _____

Date Owner/Operator Sent Copy of this Written Notification to Local Municipality and Name of Municipality Notified:

Date ___/___/___ (m d y) Municipality _____

Environmental Impacts (Mark All That Apply ☒):

- Soil ☐
- Sediment ☐
- Surface Water ☐
- Ground Water ☐
- Water Supplies ☐

V. INTERIM REMEDIAL ACTIONS (O/O Only)

(Mark All That Apply ☒):

	Planned	Initiated	Completed	Not Applicable
Regulated Substance Removed from Storage Tanks	☐	☐	☐	☐
Fire, Explosion and Safety Hazards Mitigated	☐	☐	☐	☐
Contaminated Soil Excavated	☐	☐	☐	☐
Free Product Recovered	☐	☐	☐	☐
Temporary Water Supplies Provided	☐	☐	☐	☐
Other (Specify) _____	☐	☐	☐	☐

VI. SUSPECTED / CONFIRMED CONTAMINATION INFORMATION (I/I Only)

Date of Observation of Suspected/Confirmed Contamination: 10 / 8 / 96 (m d y)

Indication of Suspected Contamination (Mark All That Apply ☒):

- Unusual Level of Vapors XX
- Erratic Behavior of Product Dispensing Equipment ☐
- Release Detection Results Indicate a Release ☐
- Discovery of Holes in the Storage Tank ☐
- Other (Specify) _____ ☐

Extent of Confirmed Contamination (Mark All That Apply ☒):

- Product Stained or Product Saturated Soil or Backfill ☐
- Ponded Product ☐
- Free Product or Sheen on Ponded Water ☐
- Free Product or Sheen on the Ground Water Surface ☐
- Free Product or Sheen on Surface Water ☐
- Other (Specify) _____ ☐

2530-FM-LRWM0082 Rev. 5/96

VII. ADDITIONAL INFORMATION (Both O/O and I/I)

Include a brief description of the activity that was being conducted when the reportable release was confirmed by the owner or operator or when the suspected/confirmed contamination was observed by the certified installer or inspector, e.g., during a(n) installation, repair or upgrade, removal from service or routine inspection.

While removing an island, encountered unusual vapors beneath the island in the dispenser area.

An estimated 40 ton of soil was stockpiled on plastic at the site and sampled.

VIII. CERTIFICATION (Both O/O and I/I)

I, DAVID J. PANASITI (Print Name), hereby certify, under penalty of law as provided in 18 Pa. C.S.A. §4904(relating to unsworn falsification to authorities) that I am the owner or operator of the above referenced storage tank facility and that the information provided by me in this notification is true, accurate and complete to the best of my knowledge and belief.

Signature of Owner or Operator — Date: 10/27/96

I, Danny Reisinger (Print Name), hereby certify, under penalty of law as provided in 18 Pa. C.S.A. §4904 (relating to unsworn falsification to authorities) that I am the certified installer who performed tank handling activities at the above referenced storage tank facility and that the information provided by me in this notification is true, accurate and complete to the best of my knowledge and belief.

Signature of Certified Installer — Date: 10/17/96

Installer Certification Number: 4391

Company Certification Number: 14

I, _____ (Print Name), hereby certify, under penalty of law as provided in 18 Pa. C.S.A. §4904 (relating to unsworn falsification to authorities) that I am the certified inspector who performed inspection activities at the above referenced storage tank facility and that the information provided by me in this notification is true, accurate and complete to the best of my knowledge and belief.

Signature of Certified Inspector — Date

Inspector Certification Number — Company Certification Number

APPENDIX B

EMERGENCY RESPONSE NOTIFICATION REPORT

EMERGENCY RESPONSE NOTIFICATION REPORT

DATE: 12/22/17	TIME: 2211	(24-hour designator)
CALLERS NAME: Dave Spochart, Bolger Brothers		PHONE: 814-931-1775
ADDRESS: 1028 Burns Ave, Altoona, PA 16601		
CALLERS AFFILIATION TO INCIDENT: Safety & Compliance Manager		
RESPONSIBLE PARTY: Dave Pamasipi, Woodland Food & Fuel (Giovanni's)		PHONE: 814-935-7219
ADDRESS:		DOT #
LOCATION OF INCIDENT: COUNTY: Clearfield		MUNICIPALITY: Bradford
HIGHWAY: PA 322 & 970		MILEMARKER:
DIRECTIONS:		

WHEN: 12/22/17; 2126

WHAT HAPPENED: A release occurred to tank number 3, UST 4000-gallon capacity, Super grade gasoline. Facility 17-70935, Giovanni's at the intersection of PA 322 & 970. Bolger Bros. of Altoona was dispatched to the site due to a suspected leak. Apparently, there has been an ongoing issue with this facility this past week. Bolger Bros. believes that there is a leak from the functional element on the top of the tank. Clearfield EMA, Woodland / Bigler FD as well as Bigler Boyz are on site conducting a survey of the area. The facility is currently closed due to the leak. According to Dick Heberling of Bigler Boyz there are no occupied dwellings in the near vicinity and the area is served by public water and sewer. The building, grounds, and collection system will be surveyed for gasoline vapor. I advised the owner, fire chief and Mr. Heberling that the facility should remain closed until it is determined that there are no gasoline vapors present. The building is built on a slab with no basement, however the area occupied by the facility is built on fill. The down slope area will also be surveyed for vapor and product. Currently evidence of gasoline is present only at the tank.

SUBSTANCES INVOLVED: Gasoline	QUANTITY: **1000 + gallons**
UN #	QUANTITY:
CAS #	QUANTITY:
ENVIRONMENT AFFECTED: Soil	
RESPONSE IN PROGRESS/WHEN/WHO:	
ERT MEMBERS DISPATCHED 1. None	TIME: 1.
2.	TIME: 2.
3.	TIME: 3.
ERT MEMBER(S) NOT ABLE TO BE CONTACTED:	
ADDITIONAL INFORMATION:	

cc: _____

Program | Person | Date

ERIN-REP 3/96 — Tom Mears (Your Name) — 12/22/17 (Date)

PROJECT ECB CONTACTED N

Woodland Food & Fuel

DATE Tanks

Case

COUNTY Clearfield MUNICIPALITY Bradford Twp

COMMENTS

APPENDIX C

CHARACTERISTICS OF CONSTITUENTS OF CONCERN

1,2,4 – TRIMETHYLBENZENE

Water Solubility (WS)	Density (d)
Organic Carbon Coefficient (Koc)	Vapor Pressure (VP)
Lower Explosive Limit (LEL)	

1. 1,2,4 - TRIMETHYLBENZENE (CAS 95-63-6)

WS	= 56 ppm	d	= 0.876 g/ml
Koc	= 2,200	VP	= 4.5 mm Hg @ 20°C
LEL	= 9,ppm		

1,2,4 – Trimethylbenze (TMB) is primarily released into the environment through spills of petroleum products. TMB is considered volatile, therefore when released onto surface water(s) and soil(s) TMB will be lost to evaporation and microbial degradation. The high Koc and low solubility values indicate that TMB has little affinity for water leading to the conclusion that TMB will largely remain in the soil in the event of a sub-surface release. Additionally, density (d) of TMB is less than 1 indicating it is lighter than water.

TMB is moderately toxic to humans targeting the nervous system. TMB is not classified as a carcinogen. The non-residential Statewide Health Standard established for TMB is 35 ppb in ground water.

1,3,5 – TRIMETHYLBENZENE

Water Solubility (WS)	Density (d)
Organic Carbon Coefficient (Koc)	Vapor Pressure (VP)
Lower Explosive Limit (LEL)	

1. 1,3,5 - TRIMETHYLBENZENE (CAS 108-67-8)

WS	= 48.9 ppm	d	= 0.8637 g/ml
Koc	= 660	VP	= 2 mm Hg @ 20°C
LEL	= Not listed in Niosh Pocket Guide		

1,3,5 – Trimethylbenze (TMB) is primarily released into the environment through spills of petroleum products. TMB is considered volatile, therefore when released onto surface water(s) and soil(s) TMB will be lost to evaporation and microbial degradation. The high Koc and low solubility values indicate that TMB has little affinity for water leading to the conclusion that TMB will largely remain in the soil in the event of a sub-surface release. Additionally, density (d) of TMB is less than 1 indicating it is lighter than water.

TMB is moderately toxic to humans targeting the nervous system. TMB is not classified as a carcinogen. The non-residential Statewide Health Standard established for TMB is 420 ppb in ground water.

BENZENE

Aqueous Solubility (AS)	Specific Gravity (SG)
Organic Carbon Coefficient (Koc)	Vapor Pressure (VP)
Degradation Coefficient (K)	Lower Explosive Limit (LEL)

Benzene (CAS 71-43-2) (Ref. 1)

AS	= 1,780.5 mg/L (Ref. 1)	SG	= 0.88 (Ref. 2)
Koc	= 58 (Ref. 1)	VP	= 75 mm Hg (Ref. 2)
K	= 0.35 (yr^{-1}) (Ref. 1)	LEL	= 1.2% (Ref. 2)

References:

1. Department of Environmental Protection, Bureau of Land Recycling and Waste Management, Land Recycling and Cleanup Program. "Title 25. Environmental Protection, Department of Environmental Protection Chapter 250. Administration of Land Recycling Program," November 24, 2001.

2. Department of Health and Human Services, Centers for Disease Control and Prevention and National Institute for Occupational and Health. NIOSH Pocket Guide to Chemical Hazards and Other Databases, Publication No. 2001-145, August 2001.

TOLUENE

Aqueous Solubility (AS)	Specific Gravity (SG)
Organic Carbon Coefficient (Koc)	Vapor Pressure (VP)
Degradation Coefficient (K)	Lower Explosive Limit (LEL)

Toluene (CAS 108-88-3) (Ref. 1)

AS	= 532.4 mg/L (Ref. 1)	SG	= 0.87 (Ref. 2)
Koc	= 130 (Ref. 1)	VP	= 21 mm Hg (Ref. 2)
K	= 9.01 (yr^{-1}) (Ref. 1)	LEL	= 1.1% (Ref. 2)

References:

1. Department of Environmental Protection, Bureau of Land Recycling and Waste Management, Land Recycling and Cleanup Program. "Title 25. Environmental Protection, Department of Environmental Protection Chapter 250. Administration of Land Recycling Program," November 24, 2001.

2. Department of Health and Human Services, Centers for Disease Control and Prevention and National Institute for Occupational and Health. NIOSH Pocket Guide to Chemical Hazards and Other Databases, Publication No. 2001-145, August 2001.

ETHYLBENZENE

Aqueous Solubility (AS)	Specific Gravity (SG)
Organic Carbon Coefficient (Koc)	Vapor Pressure (VP)
Degradation Coefficient (K)	Lower Explosive Limit (LEL)

Ethylbenzene (CAS 100-41-4) (Ref. 1)

AS	= 161 mg/L (Ref. 1)	SG	= 0.87 (Ref. 2)
Koc	= 220 (Ref. 1)	VP	= 7 mm Hg (Ref.2)
K	= 1.11 (yr^{-1}) (Ref.1)	LEL	= 0.8% (Ref. 2)

References:

1. Department of Environmental Protection, Bureau of Land Recycling and Waste Management, Land Recycling and Cleanup Program. "Title 25. Environmental Protection, Department of Environmental Protection Chapter 250. Administration of Land Recycling Program," November 24, 2001.

2. Department of Health and Human Services, Centers for Disease Control and Prevention and National Institute for Occupational and Health. NIOSH Pocket Guide to Chemical Hazards and Other Databases, Publication No. 2001-145, August 2001.

XYLENES

Aqueous Solubility (AS)

Organic Carbon Coefficient (Koc)

Degradation Coefficient (K)

Specific Gravity (SG)

Vapor Pressure (VP)

Lower Explosive Limit (LEL)

Xylenes (total) (CAS 1330-20-7) (Ref. 1)

AS = 175 mg/L (Ref. 1)

Koc = 350 (Ref. 1)

K = 0.69 (yr^{-1}) (Ref. 1)

SG = 0.87 (average) (Ref. 2)

VP = 8.3 mmHg (average) (Ref. 2)

LEL = 1.0% (average) (Ref. 2)

References:

1. Department of Environmental Protection, Bureau of Land Recycling and Waste Management, Land Recycling and Cleanup Program. "Title 25. Environmental Protection, Department of Environmental Protection Chapter 250. Administration of Land Recycling Program," November 24, 2001.

2. Department of Health and Human Services, Centers for Disease Control and Prevention and National Institute for Occupational and Health. NIOSH Pocket Guide to Chemical Hazards and Other Databases, Publication No. 2001-145, August 2001.

CUMENE

Aqueous Solubility (AS)	Specific Gravity (SG)
Organic Carbon Coefficient (Koc)	Vapor Pressure (VP)
Degradation Coefficient (K)	Lower Explosive Limit (LEL)

Cumene (CAS 98-82-8) (Ref. 1)

AS	= 50 mg/L (Ref. 1)	SG	= 0.86 (Ref. 2)
Koc	= 2800 (Ref. 1)	VP	= 8 mm Hg (Ref. 2)
K	= 15.81 (yr^{-1}) (Ref. 1)	LEL	= 0.9% (Ref. 2)

References:

1. Department of Environmental Protection, Bureau of Land Recycling and Waste Management, Land Recycling and Cleanup Program. "Title 25. Environmental Protection, Department of Environmental Protection Chapter 250. Administration of Land Recycling Program," November 24, 2001.

2. Department of Health and Human Services, Centers for Disease Control and Prevention and National Institute for Occupational and Health. NIOSH Pocket Guide to Chemical Hazards and Other Databases, Publication No. 2001-145, August 2001.

MTBE

Aqueous Solubility (AS)	Specific Gravity (SG)
Organic Carbon Coefficient (Koc)	Vapor Pressure (VP)
Degradation Coefficient (K)	Lower Explosive Limit (LEL)

Methyl-tert-butyl-ether (CAS 1634-04-4) (Ref. 1)

AS	= 45000 (mg/L) (Ref. 1)	SG	= NL (Ref. 2)
Koc	= 12 (Ref. 1)	VP	= NL (Ref. 2)
K	= 0.693 (yr^{-1}) (Ref. 1)	LEL	= NL (Ref. 2)

NL – Not Listed

References:

1. Department of Environmental Protection, Bureau of Land Recycling and Waste Management, Land Recycling and Cleanup Program. "Title 25. Environmental Protection, Department of Environmental Protection Chapter 250. Administration of Land Recycling Program," November 24, 2001.

2. Department of Health and Human Services, Centers for Disease Control and Prevention and National Institute for Occupational and Health. NIOSH Pocket Guide to Chemical Hazards and Other Databases, Publication No. 2001-145, August 2001.

NAPHTHALENE

Aqueous Solubility (AS)	Specific Gravity (SG)
Organic Carbon Coefficient (Koc)	Vapor Pressure (VP)
Degradation Coefficient (K)	Lower Explosive Limit (LEL)

Naphthalene (CAS 91-20-3) (Ref. 1)

AS	= 30 mg/L (Ref. 1)	SG	= 1.15 (Ref. 2)
Koc	= 950 (Ref. 1)	VP	= 0.08 mm Hg (Ref. 2)
K	= 0.98 (yr^{-1}) (Ref. 1)	LEL	= 0.9% (Ref. 2)

References:

1. Department of Environmental Protection, Bureau of Land Recycling and Waste Management, Land Recycling and Cleanup Program. "Title 25. Environmental Protection, Department of Environmental Protection Chapter 250. Administration of Land Recycling Program," November 24, 2001.

2. Department of Health and Human Services, Centers for Disease Control and Prevention and National Institute for Occupational and Health. NIOSH Pocket Guide to Chemical Hazards and Other Databases, Publication No. 2001-145, August 2001.

APPENDIX D

EDR REGULATORY DATABASE REPORT

Woodland Food & Fuel
2829 Woodland Bigler Highway
Woodland, PA 16881

Inquiry Number: 5151034.2s
January 04, 2018

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800 352 0050
www.edrnet.com

FORM-LBC-MGA

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

2829 WOODLAND BIGLER HIGHWAY
WOODLAND, PA 16881

COORDINATES

Latitude (North):	40.9995490 - 40' 59' 58.37"
Longitude (West):	78.3465080 - 78' 20' 47.42"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	723181.5
UTM Y (Meters):	4541887.0
Elevation:	1614 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5949120 WALLACETON, PA
Version Date:	2013
North Map:	5948746 LECONTES MILLS, PA
Version Date:	2013

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20150911
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
2829 WOODLAND BIGLER HIGHWAY
WOODLAND, PA 16881

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	WOODLAND FOOD & FUEL	ROUTE 322 & 970	LUST, UST, ARCHIVE UST	Higher	31, 0.006, NW
A2	SAMUEL J LANSBERRY	ROUTE 322 & 970	ARCHIVE UST	Higher	31, 0.006, NW
A3	SAMUEL LANDSBERRY IN	RTE 322 & 970	LUST, AST, RCRA NonGen / NLR, FINDS, ECHO	Higher	31, 0.006, NW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List

US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

SHWS..... Hazardous Sites Cleanup Act Site List
HSCA..... HSCA Remedial Sites Listing

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Operating Facilities

State and tribal leaking storage tank lists

LAST..... Storage Tank Release Sites
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
UNREG LTANKS..... Unregulated Tank Cases

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

ENG CONTROLS..... Engineering Controls Site Listing
INST CONTROL..... Institutional Controls Site Listing
AUL..... Environmental Covenants Listing

State and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Program Listing
INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Brownfields Sites

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

HIST LF..... Abandoned Landfill Inventory
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
ODI..... Open Dump Inventory
IHS OPEN DUMPS..... Open Dumps on Indian Land

EXECUTIVE SUMMARY

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register
US CDL..... National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

ARCHIVE AST..... Archived Aboveground Storage Tank Sites

Local Land Records

LIENS 2..... CERCLA Lien Information
ACT 2-DEED..... Act 2-Deed Acknowledgment Sites

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
SPILLS..... State spills

Other Ascertainable Records

FUDS..... Formerly Used Defense Sites
DOD..... Department of Defense Sites
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR..... Financial Assurance Information
EPA WATCH LIST..... EPA WATCH LIST
2020 COR ACTION..... 2020 Corrective Action Program List
TSCA..... Toxic Substances Control Act
TRIS..... Toxic Chemical Release Inventory System
SSTS..... Section 7 Tracking Systems
ROD..... Records Of Decision
RMP..... Risk Management Plans
RAATS..... RCRA Administrative Action Tracking System
PRP..... Potentially Responsible Parties
PADS..... PCB Activity Database System
ICIS..... Integrated Compliance Information System
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS..... Material Licensing Tracking System
COAL ASH DOE..... Steam-Electric Plant Operation Data
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER..... PCB Transformer Registration Database
RADINFO..... Radiation Information Database
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS..... Incident and Accident Data
CONSENT..... Superfund (CERCLA) Consent Decrees
INDIAN RESERV..... Indian Reservations
FUSRAP..... Formerly Utilized Sites Remedial Action Program
UMTRA..... Uranium Mill Tailings Sites
LEAD SMELTERS..... Lead Smelter Sites
US AIRS..... Aerometric Information Retrieval System Facility Subsystem
US MINES..... Mines Master Index File
ABANDONED MINES..... Abandoned Mines
FINDS..... Facility Index System/Facility Registry System

EXECUTIVE SUMMARY

ECHO..... Enforcement & Compliance History Information
UXO..... Unexploded Ordnance Sites
DOCKET HWC..... Hazardous Waste Compliance Docket Listing
FUELS PROGRAM..... EPA Fuels Program Registered Listing
AIRS..... Permit and Emissions Inventory Data
DRYCLEANERS..... Drycleaner Facility Locations
MANIFEST..... Manifest Information
MINES..... MINES
NPDES..... NPDES Permit Listing
UIC..... Underground Injection Wells

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants
EDR Hist Auto..... EDR Exclusive Historical Auto Stations
EDR Hist Cleaner..... EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS..... Recovered Government Archive State Hazardous Waste Facilities List
RGA LF..... Recovered Government Archive Solid Waste Facilities List
RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Resources' List of Confirmed Releases.

A review of the LUST list, as provided by EDR, and dated 09/12/2017 has revealed that there are 2 LUST sites within approximately 0.5 miles of the target property.

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WOODLAND FOOD & FUEL Facility Id: 587827	***ROUTE 322 & 970***	***NW 0 - 1/8 (0.006 mi.)***	***A1***	***8***
SAMUEL LANDSBERRY IN Facility Id: 587826	***RTE 322 & 970***	***NW 0 - 1/8 (0.006 mi.)***	***A3***	***11***

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Resources' Regulated Underground Storage Tank Listing.

A review of the UST list, as provided by EDR, and dated 09/01/2017 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WOODLAND FOOD & FUEL Site ID: 570699 Tank Status: Currently In Use	***ROUTE 322 & 970***	***NW 0 - 1/8 (0.006 mi.)***	***A1***	***8***

AST: The Aboveground Storage Tank database contains registered ASTs from the Department of Environmental Protection's Listing of Pennsylvania Regulated Aboveground Storage Tanks.

A review of the AST list, as provided by EDR, and dated 09/01/2017 has revealed that there is 1 AST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SAMUEL LANDSBERRY IN Site ID: 570698 Tank Status: C	***RTE 322 & 970***	***NW 0 - 1/8 (0.006 mi.)***	***A3***	***11***

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Registered Storage Tanks

ARCHIVE UST: The list includes tanks storing highly hazardous substances that were removed from the DEP's Storage Tank Information database because of the Department's policy on sensitive information. The list also may include tanks that are removed or permanently closed.

A review of the ARCHIVE UST list, as provided by EDR, and dated 09/12/2017 has revealed that there are 2 ARCHIVE UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WOODLAND FOOD & FUEL Status: Closed Without a Permit	***ROUTE 322 & 970***	***NW 0 - 1/8 (0.006 mi.)***	***A1***	***8***

Facility Id: 17-70935				
SAMUEL J LANSBERRY Status: Closed Without a Permit Facility Id: 17-70933	ROUTE 322 & 970	NW 0 - 1/8 (0.006 mi.)	A2	10

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

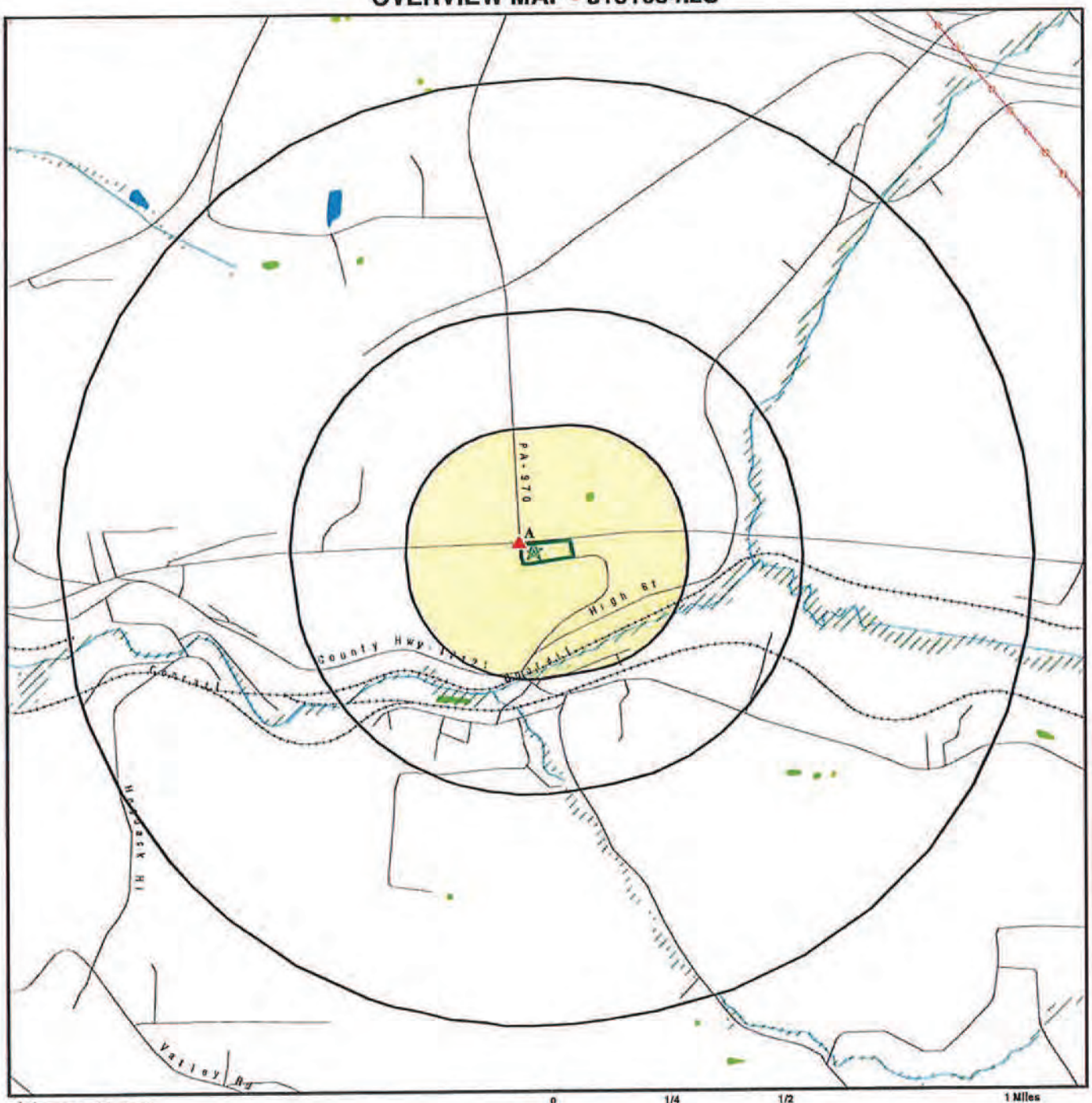
A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 09/13/2017 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SAMUEL LANDSBERRY IN	***RTE 322 & 970***	***NW 0 - 1/8 (0.006 mi.)***	***A3***	***11***

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 5151034.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Power transmission lines

100-year flood zone

500-year flood zone

National Wetland Inventory

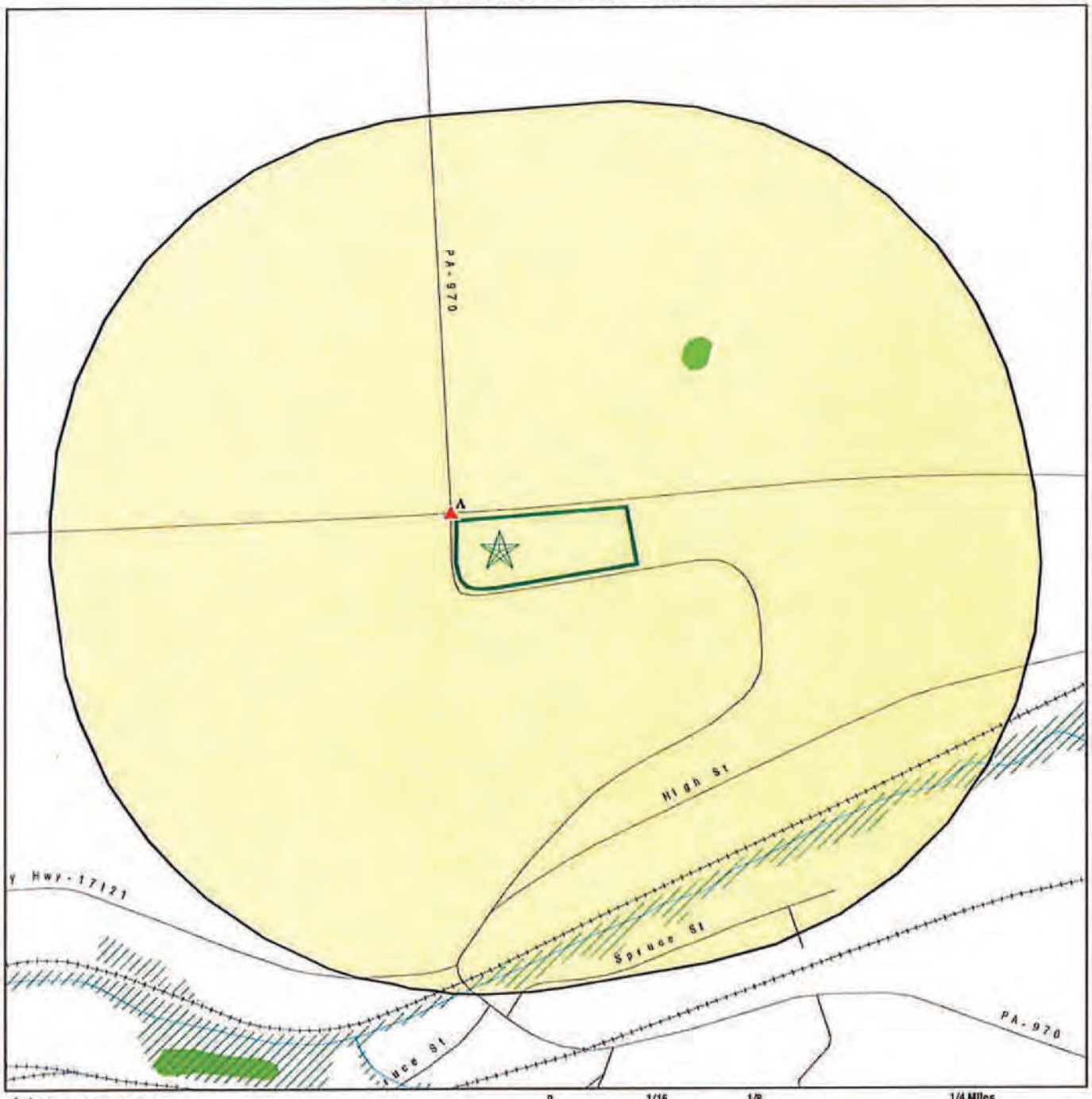
State Wetlands

Upgradient Area

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Woodland Food & Fuel ADDRESS: 2829 Woodland Bigler Highway Woodland PA 16881 LAT/LONG: 40.999549 / 78.346508	CLIENT: Mountain Research, Inc. CONTACT: Matt Ference INQUIRY #: 5151034.2s DATE: January 04, 2018 5:09 pm

DETAIL MAP - 5151034.2S



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Woodland Food & Fuel ADDRESS: 2829 Woodland Bigler Highway Woodland PA 16881 LAT/LONG: 40.999549 / 78.346508	CLIENT: Mountain Research, Inc. CONTACT: Matt Ference INQUIRY #: 5151034.2s DATE: January 04, 2018 5:10 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
SHWS	1.000		0	0	0	0	NR	0
HSCA	1.000		0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		2	0	0	NR	NR	2
LAST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UNREG LTANKS	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		1	0	NR	NR	NR	1
AST	0.250		1	0	NR	NR	NR	1
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
AUL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
HIST LF	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
ARCHIVE UST	0.250		2	0	NR	NR	NR	2
ARCHIVE AST	TP		NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
ACT 2-DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		1	0	NR	NR	NR	1
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
MANIFEST	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA HWS	TP		NR	NR	NR	NR	NR	0
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	7	0	0	0	0	7

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 NW < 1/8 0.006 mi. 31 ft. | **WOODLAND FOOD & FUEL**
ROUTE 322 & 970
WOODLAND, PA 16881 | **LUST** **UST** **ARCHIVE UST** | **U001101251** **N/A**

Site 1 of 3 in cluster A

Relative: Higher

Actual: 1621 ft.

LUST:

Region:	EP NC Rgnl Off Williamsport
Municipality:	Bradford Twp
Facility Id:	587827
Facility Type:	Underground Storage Tank Containing Petroleum
Facility Status:	**Cleanup Completed**
Status Date:	08/15/1995
Confirmed Date:	08/05/1989
Program Other Id:	17-70935
Client:	WOODLAND FOOD & FUEL INC
Incident Id:	16444
Incident Desc:	WOODLAND FOOD & FUEL INC
Suspect Date:	Not reported
Source Of Notification:	Not reported
Release Discovered:	Not reported
Source Cause Of Release:	Not reported
Tank:	Not reported
Impact Desc:	Soil
Substance:	Unleaded Gasoline
CAS RN:	Not reported
Chemical:	Not reported
Comments:	Not reported
Horizontal Ref Datum:	Not reported
Altitude Datum:	Not reported
Latitude:	Not reported
Longitude:	Not reported

UST:

Site ID:	570699
Other Id:	17-70935
Client Id Number:	176750
Municipality Name:	Bradford
Region:	EP NC Rgnl Off Williamsport
Mailing Name:	WOODLAND FOOD & FUEL INC
Mailing Address:	ROUTE 322 & 970
Mailing Address 2:	PO BOX 310A
Mailing City,St,Zip:	WOODLAND, PA 16881
Registration Expiration Date:	08/04/2018
Tank Seq No:	001
Tank Status:	**Currently In Use**
Capacity:	8000
Substance:	Gasoline
Date Installed:	06/01/1987
Tank Code:	UST
Inspection Code:	Facility Operation Inspection
Tank Last Dt Inspected:	03/15/2016
Decode for Tstatus:	Currently In Use
Decode for Substance:	Gasoline
Tank Seq No:	002
Tank Status:	**Currently In Use**

WOODLAND FOOD & FUEL (Continued) **U001101251**

Capacity:	8000
Substance:	Gasoline
Date Installed:	06/01/1987
Tank Code:	UST
Inspection Code:	Facility Operation Inspection
Tank Last Dt Inspected:	03/15/2016
Decode for Tstatus:	Currently In Use
Decode for Substance:	Gasoline

Tank Seq No:	003
Tank Status:	**Currently In Use**
Capacity:	4000
Substance:	Gasoline
Date Installed:	06/01/1987
Tank Code:	UST
Inspection Code:	Facility Operation Inspection
Tank Last Dt Inspected:	03/15/2016
Decode for Tstatus:	Currently In Use
Decode for Substance:	Gasoline

Tank Seq No:	004
Tank Status:	**Currently In Use**
Capacity:	4000
Substance:	Kerosene
Date Installed:	06/01/1987
Tank Code:	UST
Inspection Code:	Facility Operation Inspection
Tank Last Dt Inspected:	03/15/2016
Decode for Tstatus:	Currently In Use
Decode for Substance:	Kerosene

ARCHIVE UST:

Facility Id:	17-70935
Site ID:	Not reported
Municipality:	Bradford Twp
Client Date:	Not reported
Owner Id:	Not reported
Owner Name:	WOODLAND FOOD & FUEL INC
Owner Address:	PO BOX 310A
Owner Address 2:	ROUTE 322 & 970
Owner City,St,Zip:	WOODLAND, PA 16881
Owner Phone:	Not reported
Owner County Code:	Not reported
Resp Party Name:	Not reported
RP Address:	Not reported
RP Address 2:	Not reported
RP City,St,Zip:	Not reported
Region Code Name:	Not reported
Regulated Expire Date:	Not reported

Tank Sequence #:	005
Tank Id:	Not reported
Status:	Closed Without a Permit
Status Code End Date:	Not reported
Capacity:	1000

WOODLAND FOOD & FUEL (Continued) **U001101251**

Substance:	Kerosene
Tank Substance End Date:	Not reported
Install Date:	09/01/1987
Tank Code:	UST
Inspection Code:	Not reported
Last Inspection:	Not reported
Substance Type:	P
CASRN for Hazardous Substances:	Not reported
Chemical Name:	Not reported
Other Information Regarding The Tank Substance:	Not reported
Undeliverable Address Ind.:	N
Contact Name:	UNKNOWN
Company:	Not reported

A2 **SAMUEL J LANSBERRY** **ARCHIVE UST** **S119698505**
NW **ROUTE 322 & 970** **N/A**
< 1/8 **WOODLAND, PA 16881**
0.006 mi.
31 ft. **Site 2 of 3 in cluster A**

Relative:
Higher

Actual:
1621 ft.

ARCHIVE UST:

Facility Id:	17-70933
Site ID:	Not reported
Municipality:	Bradford Twp
Client Date:	Not reported
Owner Id:	Not reported
Owner Name:	SAMUEL J LANSBERRY INC
Owner Address:	507 SHAWVILLE HWY
Owner Address 2:	Not reported
Owner City,St,Zip:	WOODLAND, PA 16881-8405
Owner Phone:	Not reported
Owner County Code:	Not reported
Resp Party Name:	Not reported
RP Address:	Not reported
RP Address 2:	Not reported
RP City,St,Zip:	Not reported
Region Code Name:	Not reported
Regulated Expire Date:	Not reported
Tank Sequence #:	002
Tank Id:	Not reported
Status:	Closed Without a Permit
Status Code End Date:	Not reported
Capacity:	6000
Substance:	Diesel Fuel
Tank Substance End Date:	Not reported
Install Date:	07/01/1978
Tank Code:	UST
Inspection Code:	Not reported
Last Inspection:	Not reported
Substance Type:	P
CASRN for Hazardous Substances:	Not reported
Chemical Name:	Not reported
Other Information Regarding The Tank Substance:	Not reported
Undeliverable Address Ind.:	N
Contact Name:	SAMUEL JONATHAN LANSBERRY PRES
Company:	Not reported

SAMUEL J LANSBERRY (Continued) **S119698505**

Tank Sequence #:	001
Tank Id:	Not reported
Status:	Closed Without a Permit
Status Code End Date:	Not reported
Capacity:	4000
Substance:	Diesel Fuel
Tank Substance End Date:	Not reported
Install Date:	07/01/1978
Tank Code:	UST
Inspection Code:	Not reported
Last Inspection:	Not reported
Substance Type:	P
CASRN for Hazardous Substances:	Not reported
Chemical Name:	Not reported
Other Information Regarding The Tank Substance:	Not reported
Undeliverable Address Ind.:	N
Contact Name:	SAMUEL JONATHAN LANSBERRY PRES
Company:	Not reported

A3
NW
< 1/8
0.006 mi.
31 ft.

SAMUEL LANDSBERRY INC
RTE 322 & 970
WOODLAND, PA 16881

LUST 1000695392
AST PAD987379377
RCRA NonGen / NLR
FINDS
ECHO

Site 3 of 3 in cluster A

Relative:
Higher

Actual:
1621 ft.

LUST:

Region:	EP NC Rgnl Off Williamsport
Municipality:	Bradford Twp
Facility Id:	587826
Facility Type:	Underground Storage Tank Containing Petroleum
Facility Status:	**Cleanup Completed**
Status Date:	03/09/1999
Confirmed Date:	08/05/1989
Program Other Id:	17-70933
Client:	SAMUEL J LANSBERRY INC
Incident Id:	16449
Incident Desc:	2 USTS PULL
Suspect Date:	Not reported
Source Of Notification:	Not reported
Release Discovered:	Not reported
Source Cause Of Release:	Not reported
Tank:	Not reported
Impact Desc:	Soil
Substance:	Diesel Fuel
CAS RN:	Not reported
Chemical:	Not reported
Comments:	Not reported
Horizontal Ref Datum:	Not reported
Altitude Datum:	Not reported
Latitude:	Not reported
Longitude:	Not reported

AST:

Site ID:	570698
Client Id:	121096
Other Id:	17-70933
Mailing Name:	SAMUEL J LANSBERRY INC

SAMUEL LANDSBERRY INC (Continued) **1000695392**

Mailing Address:	PO BOX 58
Mailing Address:	ROUTE 322 & 970
Mailing City,St,Zip:	WOODLAND, PA 16881-0058
Municipality:	Bradford
Region Name:	EP NC Rgnl Off Williamsport

Tank Seq Num:	001A
Tank Status:	Currently In Use
Tank Capacity:	10000
Substance:	Diesel Fuel
Date Installed:	07/20/1998
Tank Code:	AST
Inspection Code:	In Service
Tank Last Inspected:	11/17/2009
Registration Expiration Date:	08/04/2018
Decode for Tstatus:	Currently In Use
Decode for Substance:	Diesel Fuel

RCRA NonGen / NLR:

Date form received by agency:	10/02/2008
Facility name:	SAMUEL LANDSBERRY INC
Facility address:	RTE 322 & 970 WOODLAND, PA 16881
EPA ID:	PAD987379377
Mailing address:	PO BOX 58 WOODLAND, PA 16881
Contact:	SAMUEL LANSBERRY
Contact address:	PO BOX 58 WOODLAND, PA 16881
Contact country:	US
Contact telephone:	814-857-7651
Contact email:	Not reported
EPA Region:	03
Land type:	Other land type
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency: 06/01/1992

SAMUEL LANDSBERRY INC (Continued) **1000695392**

Site name: SAMUEL J LANSBERRY INC
Classification: Not a generator, verified

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 05/13/2004
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/22/2003
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/26/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/03/2001
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/10/1999
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/04/1997
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

FINDS:

Registry ID: 110007791755

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

PA-EFACTS (Pennsylvania - Environmental Facility Application Compliance Tracking System) is a Department-wide database that provides a holistic view of clients and sites (including facilities)

SAMUEL LANDSBERRY INC (Continued) **1000695392**

that DEP regulates.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000695392
Registry ID: 110007791755
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110007791755

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List
National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/10/2017
Date Data Arrived at EDR: 11/03/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 42

Source: EPA
Telephone: N/A
Last EDR Contact: 12/22/2017
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites
A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 10/10/2017
Date Data Arrived at EDR: 11/03/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 42

Source: EPA
Telephone: N/A
Last EDR Contact: 12/22/2017
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens
Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/10/2017	Source: EPA
Date Data Arrived at EDR: 11/03/2017	Telephone: N/A
Date Made Active in Reports: 12/15/2017	Last EDR Contact: 12/22/2017
Number of Days to Update: 42	Next Scheduled EDR Contact: 04/16/2018
	Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/05/2017	Telephone: 703-603-8704
Date Made Active in Reports: 04/07/2017	Last EDR Contact: 10/06/2017
Number of Days to Update: 92	Next Scheduled EDR Contact: 01/15/2018
	Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/11/2017	Source: EPA
Date Data Arrived at EDR: 07/21/2017	Telephone: 800-424-9346
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 12/22/2017
Number of Days to Update: 77	Next Scheduled EDR Contact: 01/29/2018
	Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/11/2017
Date Data Arrived at EDR: 07/28/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 70

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/22/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/26/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: 800-438-2474
Last EDR Contact: 12/26/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: 800-438-2474
Last EDR Contact: 12/26/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: 800-438-2474
Last EDR Contact: 12/26/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: 800-438-2474
Last EDR Contact: 12/26/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/22/2017
Date Data Arrived at EDR: 06/13/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 94

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/08/2017
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 08/10/2017
Date Data Arrived at EDR: 08/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/27/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 08/10/2017
Date Data Arrived at EDR: 08/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/27/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System
Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/18/2017
Date Data Arrived at EDR: 09/21/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 22

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/28/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

SHWS: Hazardous Sites Cleanup Act Site List
The Hazardous Sites Cleanup Act Site List includes sites listed on PA Priority List, sites delisted from PA Priority List, Interim Response Completed sites, and Sites Being Studied or Response Being Planned.

Date of Government Version: 10/17/2017
Date Data Arrived at EDR: 10/18/2017
Date Made Active in Reports: 12/14/2017
Number of Days to Update: 57

Source: Department Environmental Protection
Telephone: 717-783-7816
Last EDR Contact: 10/18/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Quarterly

HSCA: HSCA Remedial Sites Listing
A list of remedial sites on the PA Priority List. This is the PA state equivalent of the federal NPL superfund list.

Date of Government Version: 07/27/2017
Date Data Arrived at EDR: 09/21/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 4

Source: Department of Environmental Protection
Telephone: 717-783-7816
Last EDR Contact: 10/20/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Varies

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Operating Facilities
The listing includes Municipal Waste Landfills, Construction/Demolition Waste Landfills and Waste-to-Energy Facilities.

Date of Government Version: 11/20/2017
Date Data Arrived at EDR: 11/22/2017
Date Made Active in Reports: 12/14/2017
Number of Days to Update: 22

Source: Department of Environmental Protection
Telephone: 717-787-7564
Last EDR Contact: 11/20/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

LAST: Storage Tank Release Sites
Leaking Aboveground Storage Tank Incident Reports.

Date of Government Version: 09/12/2017
Date Data Arrived at EDR: 09/13/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 12

Source: Department of Environmental Protection
Telephone: 717-783-7509
Last EDR Contact: 12/13/2017
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Semi-Annually

LUST: Storage Tank Release Sites
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 09/12/2017
Date Data Arrived at EDR: 09/13/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 12

Source: Department of Environmental Protection
Telephone: 717-783-7509
Last EDR Contact: 12/13/2017
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Semi-Annually

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/26/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/24/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Semi-Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/25/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 31

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 11/07/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/13/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/01/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

UNREG LTANKS: Unregulated Tank Cases
Leaking storage tank cases from unregulated storage tanks.

Date of Government Version: 04/12/2002
Date Data Arrived at EDR: 08/14/2003
Date Made Active in Reports: 08/29/2003
Number of Days to Update: 15

Source: Department of Environmental Protection
Telephone: 717-783-7509
Last EDR Contact: 08/14/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 10/13/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Varies

UST: Listing of Pennsylvania Regulated Underground Storage Tanks
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 09/01/2017
Date Data Arrived at EDR: 09/13/2017
Date Made Active in Reports: 10/09/2017
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: 717-772-5599
Last EDR Contact: 12/13/2017
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Varies

AST: Listing of Pennsylvania Regulated Aboveground Storage Tanks
Registered Aboveground Storage Tanks.

Date of Government Version: 09/01/2017
Date Data Arrived at EDR: 09/13/2017
Date Made Active in Reports: 10/09/2017
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: 717-772-5599
Last EDR Contact: 12/13/2017
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/24/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 134

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/26/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/25/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/13/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/01/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/02/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

ENG CONTROLS: Engineering Controls Site Listing

Under the Land Recycling Act (Act 2) persons who perform a site cleanup using the site-specific standard or the special industrial area standard may use engineering or institutional controls as part of the response action. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 05/15/2008
Date Data Arrived at EDR: 05/16/2008
Date Made Active in Reports: 06/12/2008
Number of Days to Update: 27

Source: Department of Environmental Protection
Telephone: 717-783-9470
Last EDR Contact: 10/17/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: No Update Planned

INST CONTROL: Institutional Controls Site Listing

Under the Land Recycling Act (Act 2) persons who perform a site cleanup using the site-specific standard or the special industrial area standard may use engineering or institutional controls as part of the response action. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 05/15/2008
Date Data Arrived at EDR: 05/16/2008
Date Made Active in Reports: 06/12/2008
Number of Days to Update: 27

Source: Department of Environmental Protection
Telephone: 717-783-9470
Last EDR Contact: 10/17/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: No Update Planned

AUL: Environmental Covenants Listing

A listing of sites with environmental covenants.

Date of Government Version: 10/16/2017
Date Data Arrived at EDR: 10/18/2017
Date Made Active in Reports: 12/14/2017
Number of Days to Update: 57

Source: Department of Environmental Protection
Telephone: 717-783-7509
Last EDR Contact: 10/18/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Sites

The VCP listings included Completed Sites, Sites in Progress and Act 2 Non-Use Aquifer Determinations Sites. Formerly known as the Act 2, the Land Recycling Program encourages the voluntary cleanup and reuse of contaminated commercial and industrial sites.

Date of Government Version: 10/10/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/14/2017
Number of Days to Update: 34

Source: Department of Environmental Protection
Telephone: 717-783-2388
Last EDR Contact: 10/11/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/20/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Sites
Brownfields are generally defined as abandoned or underused industrial or commercial properties where redevelopment is complicated by actual or perceived environmental contamination. Brownfields vary in size, location, age and past use. They can range from a small, abandoned corner gas station to a large, multi-acre former manufacturing plant that has been closed for years.

Date of Government Version: 10/17/2017
Date Data Arrived at EDR: 10/18/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 58

Source: Department of Environmental Protection
Telephone: 717-783-1566
Last EDR Contact: 10/18/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 08/21/2017
Date Data Arrived at EDR: 09/20/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/19/2017
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HIST LF INVENTORY: Facility Inventory
A listing of solid waste facilities. This listing is no longer updated or maintained by the Department of Environmental Protection. At the time the listing was available, the DEP?s name was the Department of Environmental Resources.

Date of Government Version: 06/02/1999
Date Data Arrived at EDR: 07/12/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 30

Source: Department of Environmental Protection
Telephone: 717-787-7381
Last EDR Contact: 09/19/2005
Next Scheduled EDR Contact: 12/19/2005
Data Release Frequency: No Update Planned

HIST LF INACTIVE: Inactive Facilities List
A listing of inactive non-hazardous facilities (10000 & 300000 series). This listing is no longer updated or maintained by the Department of Environmental Protection. At the time the listing was available, the DEP?s name was the Department of Environmental Resources.

Date of Government Version: 12/20/1994
Date Data Arrived at EDR: 07/12/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 30

Source: Department of Environmental Protection
Telephone: 717-787-7381
Last EDR Contact: 06/21/2005
Next Scheduled EDR Contact: 12/19/2005
Data Release Frequency: No Update Planned

HIST LF ALI: Abandoned Landfill Inventory
The report provides facility information recorded in the Pennsylvania Department of Environmental Protection ALI database. Some of this information has been abstracted from old records and may not accurately reflect the current conditions and status at these facilities

Date of Government Version: 01/04/2005
Date Data Arrived at EDR: 01/04/2005
Date Made Active in Reports: 02/04/2005
Number of Days to Update: 31

Source: Department of Environmental Protection
Telephone: 717-787-7564
Last EDR Contact: 11/26/2012
Next Scheduled EDR Contact: 03/11/2013
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/30/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/20/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 07/13/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 30

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 07/13/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 30

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

ARCHIVE UST: Archived Underground Storage Tank Sites
The list includes tanks storing highly hazardous substances that were removed from the DEP's Storage Tank Information database because of the Department's policy on sensitive information. The list also may include tanks that are removed or permanently closed.

Date of Government Version: 09/12/2017
Date Data Arrived at EDR: 09/13/2017
Date Made Active in Reports: 10/09/2017
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: 717-772-5599
Last EDR Contact: 12/11/2017
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Varies

ARCHIVE AST: Archived Aboveground Storage Tank Sites
The list includes aboveground tanks with a capacity greater than 21,000 gallons that were removed from the DEP's Storage Tank Information database because of the Department's policy on sensitive information. The list also may include tanks that are removed or permanently closed.

Date of Government Version: 09/12/2017
Date Data Arrived at EDR: 09/13/2017
Date Made Active in Reports: 10/09/2017
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: 717-772-5599
Last EDR Contact: 12/11/2017
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Varies

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/11/2017
Date Data Arrived at EDR: 07/26/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 12/22/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Semi-Annually

ACT 2-DEED: Act 2-Deed Acknowledgment Sites

This listing pertains to sites where the Department has approved a cleanup requiring a deed acknowledgment under Act 2. This list includes sites remediated to a non-residential Statewide health standard (Section 303(g)); all sites demonstrating attainment of a Site-specific standard (Section 304(m)); and sites being remediated as a special industrial area (Section 305(g)). Persons who remediated a site to a standard that requires a deed acknowledgment shall comply with the requirements of the Solid Waste Management Act or the Hazardous Sites Cleanup Act, as referenced in Act 2. These statutes require a property description section in the deed concerning the hazardous substance disposal on the site. The location of disposed hazardous substances and a description of the type of hazardous substances disposed on the site shall be included in the deed acknowledgment. A deed acknowledgment is required at the time of conveyance of the property.

Date of Government Version: 04/23/2010
Date Data Arrived at EDR: 04/28/2010
Date Made Active in Reports: 04/30/2010
Number of Days to Update: 2

Source: Department of Environmental Protection
Telephone: 717-783-9470
Last EDR Contact: 07/22/2011
Next Scheduled EDR Contact: 11/07/2011
Data Release Frequency: Varies

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/21/2017
Date Data Arrived at EDR: 09/21/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 22

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/28/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

SPILLS: State spills

A listing of hazardous material incidents.

Date of Government Version: 10/20/2017
Date Data Arrived at EDR: 11/01/2017
Date Made Active in Reports: 12/14/2017
Number of Days to Update: 43

Source: DEP, Emergency Response
Telephone: 717-787-5715
Last EDR Contact: 10/05/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Semi-Annually

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: 800-438-2474
Last EDR Contact: 12/26/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 11/22/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/13/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/11/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/17/2017
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 10/17/2017
Date Data Arrived at EDR: 11/01/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 12/26/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 11/06/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/09/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/22/2017
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/20/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 09/27/2017
Date Data Arrived at EDR: 10/12/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 8

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 12/22/2017
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 12/22/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 126

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/13/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 10/11/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 10/16/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 12/05/2017
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 12/08/2017
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 10/26/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/02/2017
Date Data Arrived at EDR: 10/05/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 10/05/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data
Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/31/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2017
Date Data Arrived at EDR: 08/03/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 78

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/18/2017
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: Varies

BRS: Biennial Reporting System
The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/20/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Biennially

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/11/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 11/02/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/22/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 10/10/2017
Date Data Arrived at EDR: 11/03/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 12/22/2017
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File
Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 07/31/2017
Date Data Arrived at EDR: 08/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 44

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing
This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 12/01/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing
Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 12/01/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines
An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/25/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 24

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 12/19/2017
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/23/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 9

Source: EPA
Telephone: (215) 814-5000
Last EDR Contact: 12/05/2017
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2016
Date Data Arrived at EDR: 06/02/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 133

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/16/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 02/13/2017
Date Data Arrived at EDR: 02/15/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 261

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 11/21/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/02/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 12/05/2017
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/17/2017
Date Data Arrived at EDR: 08/17/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 29

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 11/20/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Quarterly

AIRS: Permit and Emissions Inventory Data

Permit and emissions inventory data.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/14/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 73

Source: Department of Environmental Protection
Telephone: 717-787-9702
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DRYCLEANERS: Drycleaner Facility Locations
A listing of drycleaner facility locations.

Date of Government Version: 09/19/2017
Date Data Arrived at EDR: 09/21/2017
Date Made Active in Reports: 10/31/2017
Number of Days to Update: 40

Source: Department of Environmental Protection
Telephone: 717-787-9702
Last EDR Contact: 12/18/2017
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/25/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 62

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/16/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Annually

MINES: Abandoned Mine Land Inventory
This data set portrays the approximate location of Abandoned Mine Land Problem Areas containing public health, safety, and public welfare problems created by past coal mining.

Date of Government Version: 10/03/2017
Date Data Arrived at EDR: 10/25/2017
Date Made Active in Reports: 11/14/2017
Number of Days to Update: 20

Source: PASDA
Telephone: 814-863-0104
Last EDR Contact: 10/25/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Semi-Annually

NPDES: NPDES Permit Listing
A listing of facilities with an NPDES permit.

Date of Government Version: 09/19/2017
Date Data Arrived at EDR: 09/21/2017
Date Made Active in Reports: 10/09/2017
Number of Days to Update: 18

Source: Department of Environmental Protection
Telephone: 717-787-9642
Last EDR Contact: 12/08/2017
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Varies

UIC: Underground Injection Wells
A listing of underground injection well locations.

Date of Government Version: 09/19/2017
Date Data Arrived at EDR: 09/20/2017
Date Made Active in Reports: 10/09/2017
Number of Days to Update: 19

Source: Department of Environmental Protection
Telephone: 717-783-7209
Last EDR Contact: 12/20/2017
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department Environmental Protection in Pennsylvania.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: Department Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department Environmental Protection in Pennsylvania.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/10/2014
Number of Days to Update: 193

Source: Department Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank
The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department Environmental Protection in Pennsylvania.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: Department Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 11/11/2017
Date Data Arrived at EDR: 11/14/2017
Date Made Active in Reports: 12/18/2017
Number of Days to Update: 34

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/11/2017
Date Made Active in Reports: 07/27/2017
Number of Days to Update: 107

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/05/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 10/01/2017
Date Data Arrived at EDR: 11/01/2017
Date Made Active in Reports: 11/13/2017
Number of Days to Update: 12

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Quarterly

RI MANIFEST: Manifest Information
Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/16/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Annually

VT MANIFEST: Hazardous Waste Manifest Data
Hazardous waste manifest information.

Date of Government Version: 08/29/2017
Date Data Arrived at EDR: 09/08/2017
Date Made Active in Reports: 11/10/2017
Number of Days to Update: 63

Source: Department of Environmental Conservation
Telephone: 802-241-3443
Last EDR Contact: 10/16/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/13/2017
Date Made Active in Reports: 07/14/2017
Number of Days to Update: 92

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/11/2017
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Child Care Facility List
Source: Department of Public Welfare
Telephone: 717-783-3856

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Pennsylvania Spatial Data Access
Telephone: 610-344-6105

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

GEOCHECK®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

WOODLAND FOOD & FUEL
2829 WOODLAND BIGLER HIGHWAY
WOODLAND, PA 16881

TARGET PROPERTY COORDINATES

Latitude (North):	40.999549 - 40' 59' 58.38"
Longitude (West):	78.346508 - 78' 20' 47.43"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	723181.5
UTM Y (Meters):	4541887.0
Elevation:	1614 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5949120 WALLACETON, PA
Version Date:	2013
North Map:	5948746 LECONTES MILLS, PA
Version Date:	2013

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

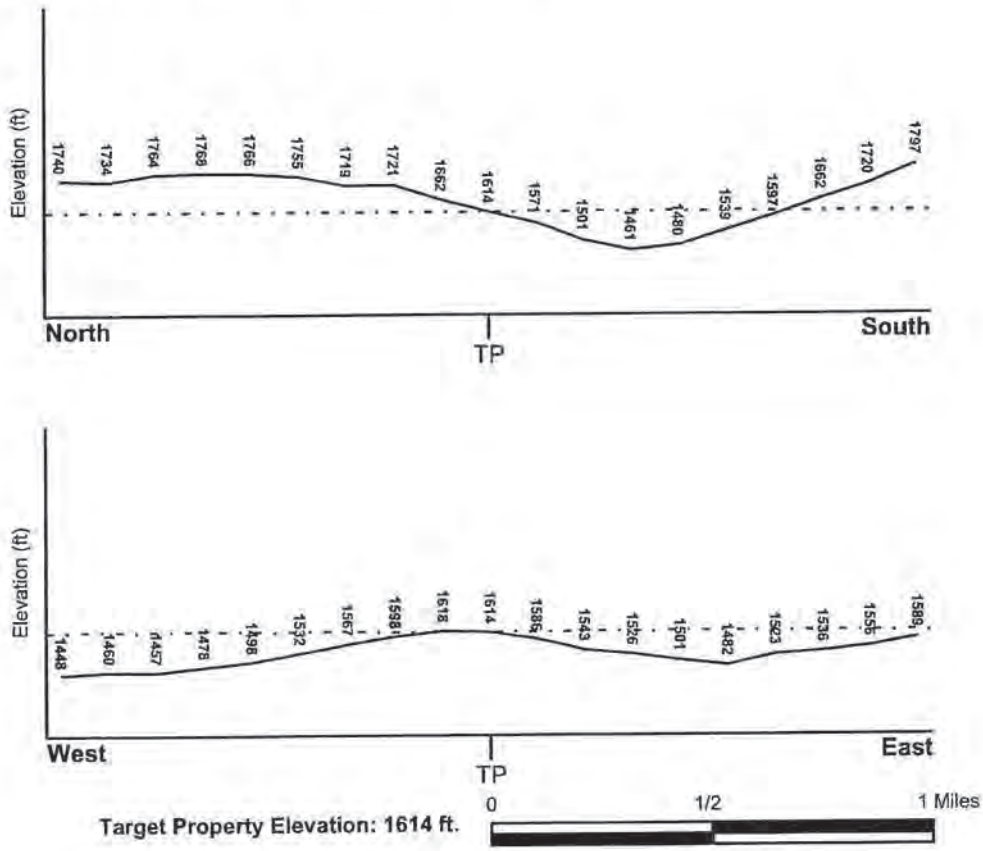
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 1614 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
42033C0505D	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
42033C0340D	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
WALLACETON	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

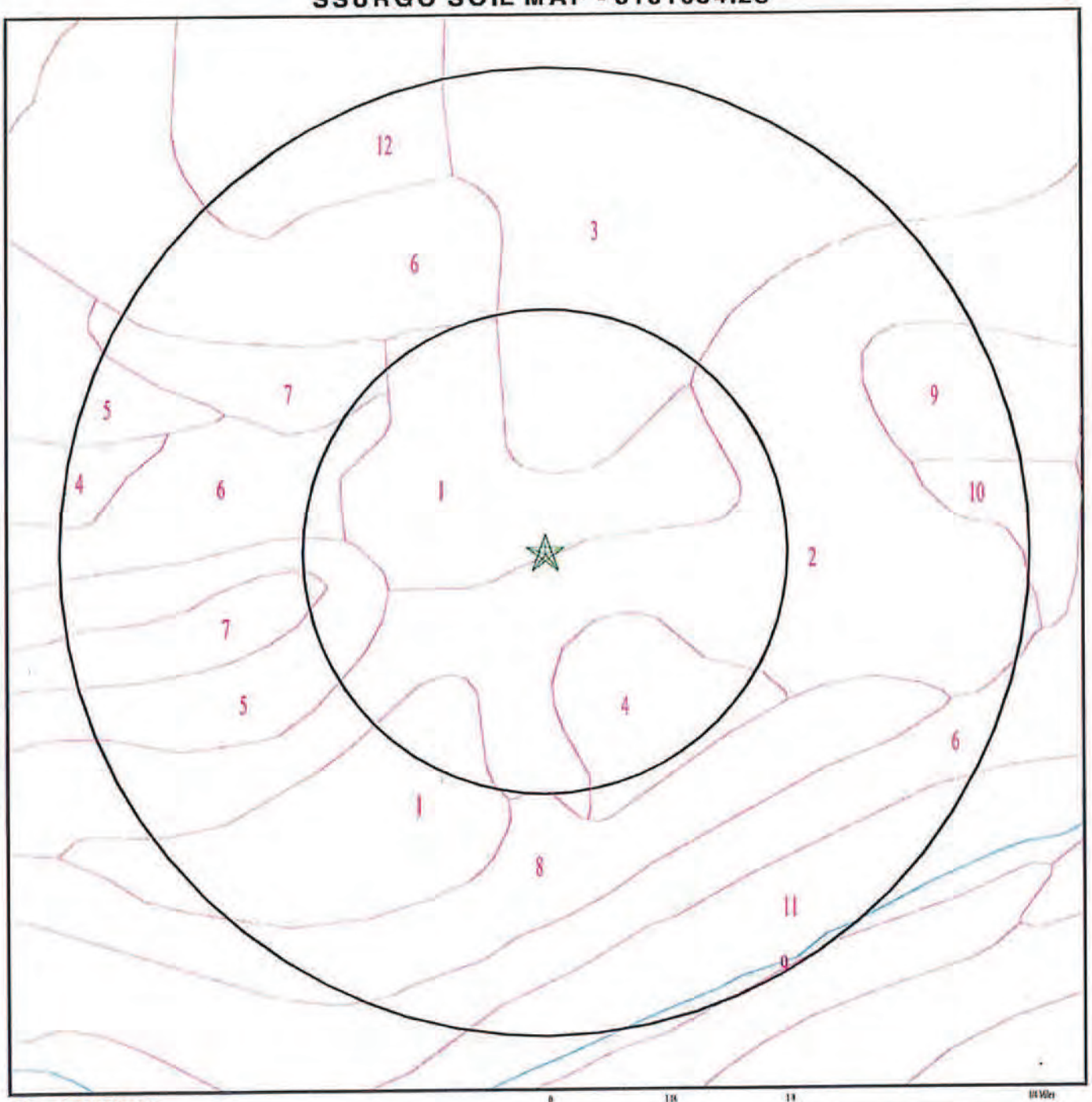
Era:	Paleozoic
System:	Pennsylvanian
Series:	Des Moinesian Series
Code:	PP2 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5151034.2s



★ Target Property

SSURGO Soil

Water

SITE NAME: Woodland Food & Fuel ADDRESS: 2829 Woodland Bigler Highway Woodland PA 16881 LAT/LONG: 40.999549 / 78.346508	CLIENT: Mountain Research, Inc. CONTACT: Matt Ference INQUIRY #: 5151034.2s DATE: January 04, 2018 5:10 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Wharton

Soil Surface Texture: channery silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 69 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 5.5 Min: 4
2	11 inches	50 inches	channery silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4.23 Min: 0.42	Max: 5.5 Min: 4
3	50 inches	68 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4.23 Min: 0.42	Max: 5.5 Min: 4
4	68 inches	72 inches	weathered bedrock	Not reported	Not reported	Max: 14.11 Min: 0.42	Max: Min:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 2

Soil Component Name: Wharton

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 69 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 5.5 Min: 4
2	68 inches	72 inches	weathered bedrock	Not reported	Not reported	Max: 14.11 Min: 0.42	Max: Min:
3	11 inches	50 inches	channery silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4.23 Min: 0.42	Max: 5.5 Min: 4
4	50 inches	68 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4.23 Min: 0.42	Max: 5.5 Min: 4

Soil Map ID: 3

Soil Component Name: Cedarcreek

Soil Surface Texture: extremely channery loam

Hydrologic Group: Class B/D - Drained/undrained hydrology class of soils that can be drained and are classified.

Soil Drainage Class: Somewhat excessively drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 230 inches

Depth to Watertable Min: > 61 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	24 inches	extremely channery loam	Not reported	Not reported	Max: 42.34 Min: 14.11	Max: 5.5 Min: 3.6
2	24 inches	70 inches	extremely channery silty clay loam	Not reported	Not reported	Max: 141.14 Min: 0.42	Max: 5.5 Min: 3.6

Soil Map ID: 4

Soil Component Name: Cavode

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 8 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 5.5 Min: 4.5

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	7 inches	42 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 1.41 Min: 0.42	Max: 5.5 Min: 4.5
3	42 inches	62 inches	very channery silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 1.41 Min: 0.42	Max: 5.5 Min: 4.5
4	62 inches	66 inches	unweathered bedrock	Not reported	Not reported	Max: 14.11 Min: 0.42	Max: Min:

Soil Map ID: 5

Soil Component Name: Gilpin

Soil Surface Texture: channery silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 5.5 Min: 3.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	9 inches	25 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 5.5 Min: 3.6
3	25 inches	31 inches	very channery loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Clayey Gravel	Max: 14.11 Min: 4.23	Max: 5.5 Min: 3.6
4	31 inches	35 inches	unweathered bedrock	Not reported	Not reported	Max: 14.11 Min: 1.41	Max: Min:

Soil Map ID: 6

Soil Component Name: Rayne

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 5.5 Min: 4.5

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	9 inches	37 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 14.11 Min: 4.23	Max: 5.5 Min: 4.5
3	37 inches	59 inches	very channery silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14.11 Min: 4.23	Max: 5.5 Min: 4.5
4	59 inches	63 inches	unweathered bedrock	Not reported	Not reported	Max: 14.11 Min: 0.42	Max: Min:

Soil Map ID: 7

Soil Component Name: Gilpin

Soil Surface Texture: channery silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 5.5 Min: 3.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	9 inches	25 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 5.5 Min: 3.6
3	25 inches	31 inches	very channery loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Clayey Gravel	Max: 14.11 Min: 4.23	Max: 5.5 Min: 3.6
4	31 inches	35 inches	unweathered bedrock	Not reported	Not reported	Max: 14.11 Min: 1.41	Max: Min:

Soil Map ID: 8

Soil Component Name: Rayne

Soil Surface Texture: channery silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 5.5 Min: 4.5

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	9 inches	37 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 14.11 Min: 4.23	Max: 5.5 Min: 4.5
3	37 inches	59 inches	very channery silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14.11 Min: 4.23	Max: 5.5 Min: 4.5
4	59 inches	63 inches	unweathered bedrock	Not reported	Not reported	Max: 14.11 Min: 0.42	Max: Min:

Soil Map ID: 9

Soil Component Name: Ernest

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 53 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	3 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 6 Min: 4.5

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	3 inches	24 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 5.5 Min: 4.5
3	24 inches	46 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 5.5 Min: 4.5
4	46 inches	59 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 5.5 Min: 4.5

Soil Map ID: 10

Soil Component Name: Ernest

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 53 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	3 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 6 Min: 4.5
2	3 inches	24 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 5.5 Min: 4.5
3	24 inches	46 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 5.5 Min: 4.5
4	46 inches	59 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 5.5 Min: 4.5

Soil Map ID: 11

Soil Component Name: Philo

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 102 inches

Depth to Watertable Min: > 69 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6 Min: 4.5
2	9 inches	42 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14.11 Min: 4.23	Max: 6 Min: 4.5
3	42 inches	61 inches	stratified gravelly sand to silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5

Soil Map ID: 12

Soil Component Name: Bethesda

Soil Surface Texture: very channery silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	very channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 5.5 Min: 3.6
2	7 inches	64 inches	extremely channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 4.23 Min: 1.41	Max: 5.5 Min: 3.6

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

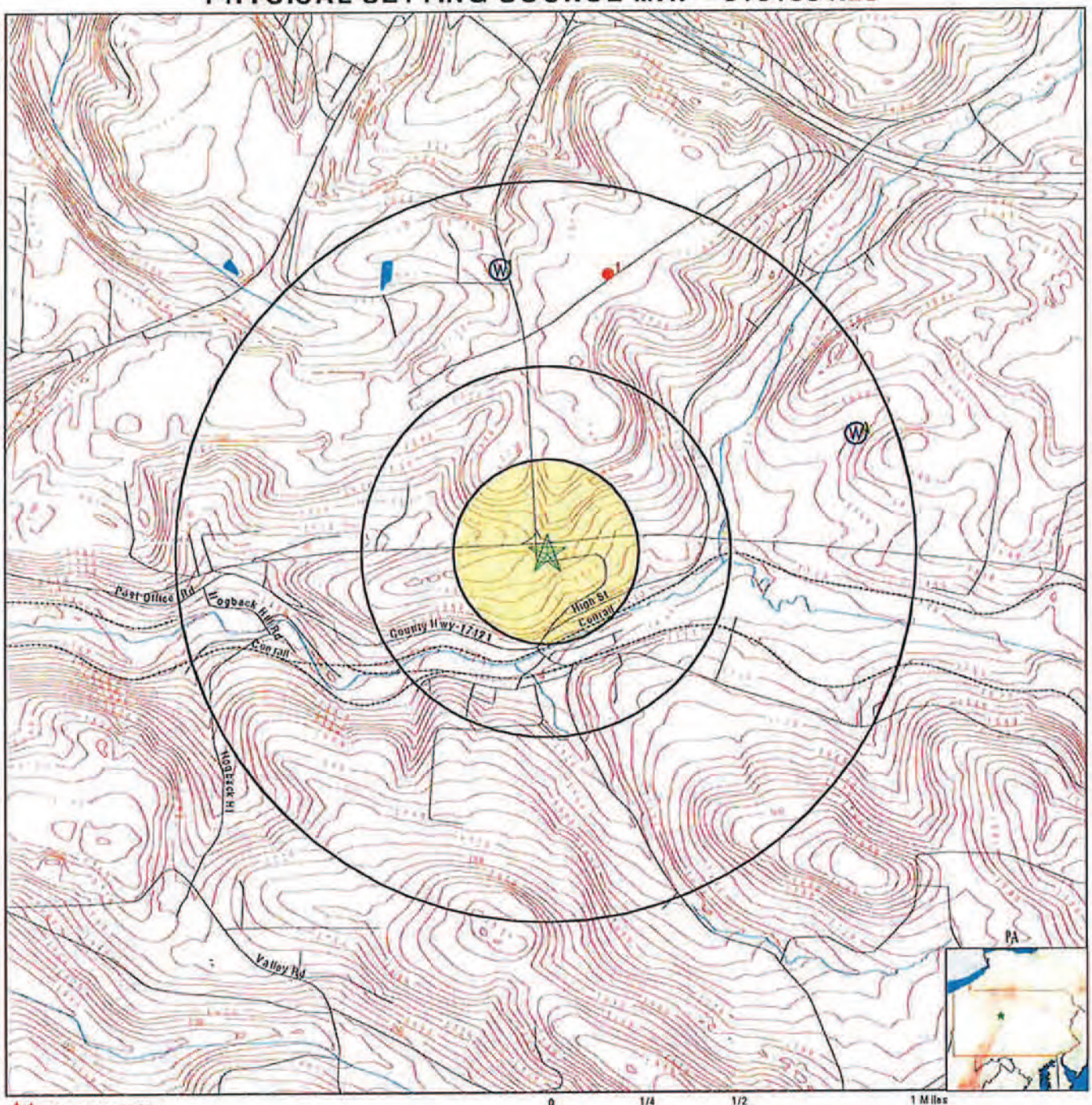
MAP ID	WELL ID	LOCATION FROM TP
1	PASI50000390804	1/2 - 1 Mile North
A2	PASI50000401451	1/2 - 1 Mile ENE
A3	PASI50000401452	1/2 - 1 Mile ENE

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	PAOG60000077588	1/2 - 1 Mile NNE

PHYSICAL SETTING SOURCE MAP - 5151034.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Oil, gas or related wells

SITE NAME: Woodland Food & Fuel ADDRESS: 2829 Woodland Bigler Highway Woodland PA 16881 LAT/LONG: 40.999549 / 78.346508	CLIENT: Mountain Research, Inc. CONTACT: Matt Ference INQUIRY #: 5151034.2s DATE: January 04, 2018 5:10 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
1 **North** **1/2 - 1 Mile** **Higher**	**PA WELLS**	**PASI50000390804**

Objectid:	390804	Depcounter:	-1
Siteid:	Not Reported	Transactioncount:	0
Localwellnumber:	Not Reported	Countycode:	033
Latitude:	Not Reported	Longitude:	Not Reported
Aapgcode:	Not Reported	Topographycode:	Not Reported
Welldepth:	110	Elevation:	0
Elevmethodcode:	Not Reported	Accuracyofelevat:	Not Reported
Hydrologicunit:	Not Reported	Latlongaccuracyc:	Not Reported
Quadcode:	0	Typeofsitecode:	W
Datecreated:	19-APR-10	Dateupdated:	Not Reported
Datareliabilityc:	Not Reported	Sourcedepthdatac:	Not Reported
Municipalitycode:	17909		
Latitudedd:	41.01056		
Longitudedd:	-78.34889		
Welladdress:	Not Reported		
Wellzipcode:	Not Reported	Depthtobedrock:	4
Bedrocknotreache:	0	Saltwaterzone:	0
Datedrilled:	15-APR-10	Pagwis id:	0
Sourcesitedataco:	3	Localpermit:	Not Reported
Latestowner:	7460708	Driller scoordme:	3
Latestproduction:	4485540	Latestwelluse:	7177723
Site id:	PASI50000390804	GeneralCounter:	484062

A2 **ENE** **1/2 - 1 Mile** **Lower**	**PA WELLS**	**PASI50000401451**

Objectid:	401451	Depcounter:	-1
Siteid:	Not Reported	Transactioncount:	0
Localwellnumber:	Not Reported	Countycode:	033
Latitude:	Not Reported	Longitude:	Not Reported
Aapgcode:	Not Reported	Topographycode:	Not Reported
Welldepth:	150	Elevation:	0
Elevmethodcode:	Not Reported	Accuracyofelevat:	Not Reported
Hydrologicunit:	Not Reported	Latlongaccuracyc:	Not Reported
Quadcode:	0	Typeofsitecode:	W
Datecreated:	28-AUG-09	Dateupdated:	Not Reported
Datareliabilityc:	Not Reported	Sourcedepthdatac:	Not Reported
Municipalitycode:	17943		
Latitudedd:	41.00426		
Longitudedd:	-78.33072		
Welladdress:	Not Reported		
Wellzipcode:	Not Reported	Depthtobedrock:	0
Bedrocknotreache:	0	Saltwaterzone:	0
Datedrilled:	27-AUG-09	Pagwis id:	0
Sourcesitedataco:	3	Localpermit:	Not Reported
Latestowner:	7447537	Driller scoordme:	1

Latestproduction:	4480084	Latestwelluse:	7336209
Site id:	PASI50000401451	GeneralCounter:	494709

A3
ENE
1/2 - 1 Mile
Lower

PA WELLS **PASI50000401452**

Objectid:	401452	Depcounter:	-1
Siteid:	Not Reported	Transactioncount:	0
Localwellnumber:	Not Reported	Countycode:	033
Latitude:	Not Reported	Longitude:	Not Reported
Aapgcode:	Not Reported	Topographycode:	Not Reported
Welldepth:	150	Elevation:	0
Elevmethodcode:	Not Reported	Accuracyofelevat:	Not Reported
Hydrologicunit:	Not Reported	Latlongaccuracyc:	Not Reported
Quadcode:	0	Typeofsitecode:	W
Datecreated:	28-AUG-09	Dateupdated:	Not Reported
Datareliabilityc:	Not Reported	Sourcedepthdatac:	Not Reported
Municipalitycode:	17943		
Latitudedd:	41.00394		
Longitudedd:	-78.33028		
Welladdress:	Not Reported		
Wellzipcode:	Not Reported	Depthtobedrock:	0
Bedrocknotreache:	0	Saltwaterzone:	0
Datedrilled:	27-AUG-09	Pagwis id:	0
Sourcesitedataco:	3	Localpermit:	Not Reported
Latestowner:	7453496	Driller scoordme:	1
Latestproduction:	4491372	Latestwelluse:	9848804
Site id:	PASI50000401452	GeneralCounter:	494710

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance	Database	EDR ID Number
1 **NNE** **1/2 - 1 Mile**	**OIL_GAS**	**PAOG60000077588**

Organizati:	NORTHEAST NATURAL ENERGY LLC		
Client nam:	NORTHEAST NATURAL ENERGY LLC		
Site name:	WOOLRIDGE 1 OG WELL		
Primary fa:	WOOLRIDGE COAL CO 1		
Client id:	280163		
Pasite id:	671936		
Primary 1:	680245		
Sub facili:	WOOLRIDGE COAL CO 1		
Sub faci 1:	920721		
Primary 2:	Oil & Gas Location		
Primary 3:	NonCoal		
Other faci:	033-26095		
Sub faci 2:	Well		
Sother id:	033-26095		
Client rel:	Owner		
Site statu:	Active		
Primary 4:	Regulatory Inactive Status		
Sub faci 3:	523		
Compliance:	YES	Site id:	PAOG60000077588

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: PA Radon

Radon Test Results

Zipcode	Num Tests	Min pCi/L	Max pCi/L	Avg pCi/L
16881	25	0.7	27.5	6.3

EPA Region 3 Statistical Summary Readings for Zip Code: 16881

Number of sites tested: 10.

Maximum Radon Level: 35.9 pCi/L.
Minimum Radon Level: 0.7 pCi/L.

pCi/L <4	pCi/L 4-10	pCi/L 10-20	pCi/L 20-50	pCi/L 50-100	pCi/L >100
7 (70.00%)	0 (0.00%)	2 (20.00%)	1 (10.00%)	0 (0.00%)	0 (0.00%)

Federal EPA Radon Zone for CLEARFIELD County: 1

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Pennsylvania Spatial Data Access
Telephone: 610-344-6105

HYDROGEOLOGIC INFORMATION

AQUIFLOW[R] Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Pennsylvania Public Water Supply Wells
Source: Pennsylvania Department of Environmental Resources Bureau of Water Supply
Telephone: 717-787-5017

Pennsylvania Groundwater Information System
Source: Department of Conservation and Natural Resources
Telephone: 717-702-2045

OTHER STATE DATABASE INFORMATION

Pennsylvania Oil and Gas Locations
Source: Pennsylvania Department of Environmental Protection
Telephone: 814-863-0104
An Oil and Gas Location is a DEP primary facility type related to the Oil & Gas Program. The sub-facility types related to Oil and Gas that are included in this layer are:Land Application -- An area where drilling cuttings or waste are disposed by land application; Well-- A well associated with oil and/or gas production; Pit -- An approved pit that is used for storage of oil and gas well fluids.Some sub facility types are not included in this layer due to security policies.

RADON

State Database: PA Radon
Source: Department of Environmental Protection
Telephone: 717-783-3594
Radon Test Results Statistics by Zip Code

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Region 3 Statistical Summary Readings
Source: Region 3 EPA
Telephone: 215-814-2082
Radon readings for Delaware, D.C., Maryland, Pennsylvania, Virginia and West Virginia.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

Woodland Food & Fuel
2829 Woodland Bigler Highway
Woodland, PA 16881

Inquiry Number: 5151034.4
January 04, 2018

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

01/04/18

Site Name:	Client Name:
Woodland Food & Fuel	Mountain Research, Inc.
2829 Woodland Bigler Highway	825 25th Street
Woodland, PA 16881	Altoona, PA 16601
EDR Inquiry # 5151034.4	Contact: Matt Ference

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Mountain Research, Inc. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.#	24591
Project:	4923.18.01.50

Coordinates:

Latitude:	40.999549 40° 59' 58" North
Longitude:	-78.346508 -78° 20' 47" West
UTM Zone:	Zone 17 North
UTM X Meters:	723175.52
UTM Y Meters:	4542098.70
Elevation:	1612.91' above sea level

Maps Provided:

2013	1944, 1945
2000	1932
1993	1929
1986	1905
1981	1903
1969, 1971	
1959	
1946	

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2013 Source Sheets

Clearfield

7.5-minute, 24000

Lecontes Mills

7.5-minute, 24000

Wallaceton

7.5-minute, 24000

Glen Richey

7.5-minute, 24000

2000 Source Sheets

Lecontes Mills

7.5-minute, 24000
Aerial Photo Revised 2000

1993 Source Sheets

Glen Richey

7.5-minute, 24000
Aerial Photo Revised 1991

Wallaceton

7.5-minute, 24000
Aerial Photo Revised 1991

1986 Source Sheets

Lecontes Mills

7.5-minute, 24000
Aerial Photo Revised 1983

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1981 Source Sheets

Glen Richey

7.5-minute, 24000
Aerial Photo Revised 1977

Clearfield

7.5-minute, 24000
Aerial Photo Revised 1977

Lecontes Mills

7.5-minute, 24000
Aerial Photo Revised 1977

GLENRICHEY

7.5-minute, 24000

1969, 1971 Source Sheets

Glen Richey

7.5-minute, 24000
Aerial Photo Revised 1969

Wallaceton

7.5-minute, 24000
Aerial Photo Revised 1969

GLENRICHEY

7.5-minute, 24000

Clearfield

7.5-minute, 24000
Aerial Photo Revised 1971

Lecontes Mills

7.5-minute, 24000
Aerial Photo Revised 1971

1959 Source Sheets

Clearfield

7.5-minute, 24000
Aerial Photo Revised 1958

Lecontes Mills

7.5-minute, 24000
Aerial Photo Revised 1958

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1946 Source Sheets

Wallaceton

7.5-minute, 31680

Glen Richey

7.5-minute, 31680

1944, 1945 Source Sheets

Glen Richey

7.5-minute, 24000

Wallaceton

7.5-minute, 24000

1932 Source Sheets

Clearfield

15-minute, 62500

1929 Source Sheets

Clearfield

15-minute, 48000

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1905 Source Sheets

Houtzdale

15-minute, 62500

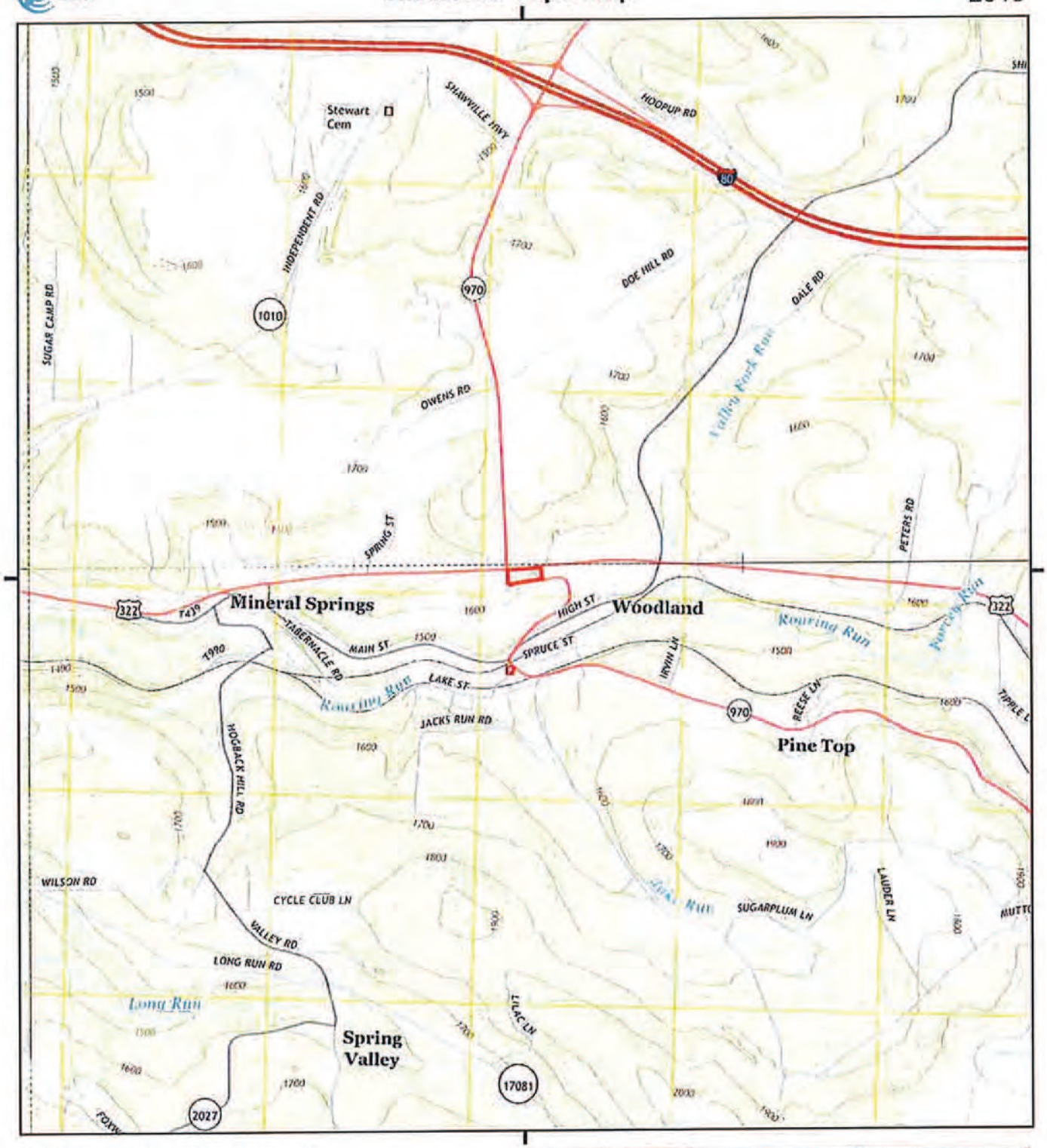
1903 Source Sheets

Houtzdale

15-minute, 62500

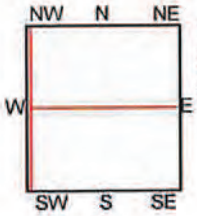
Historical Topo Map

2013



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



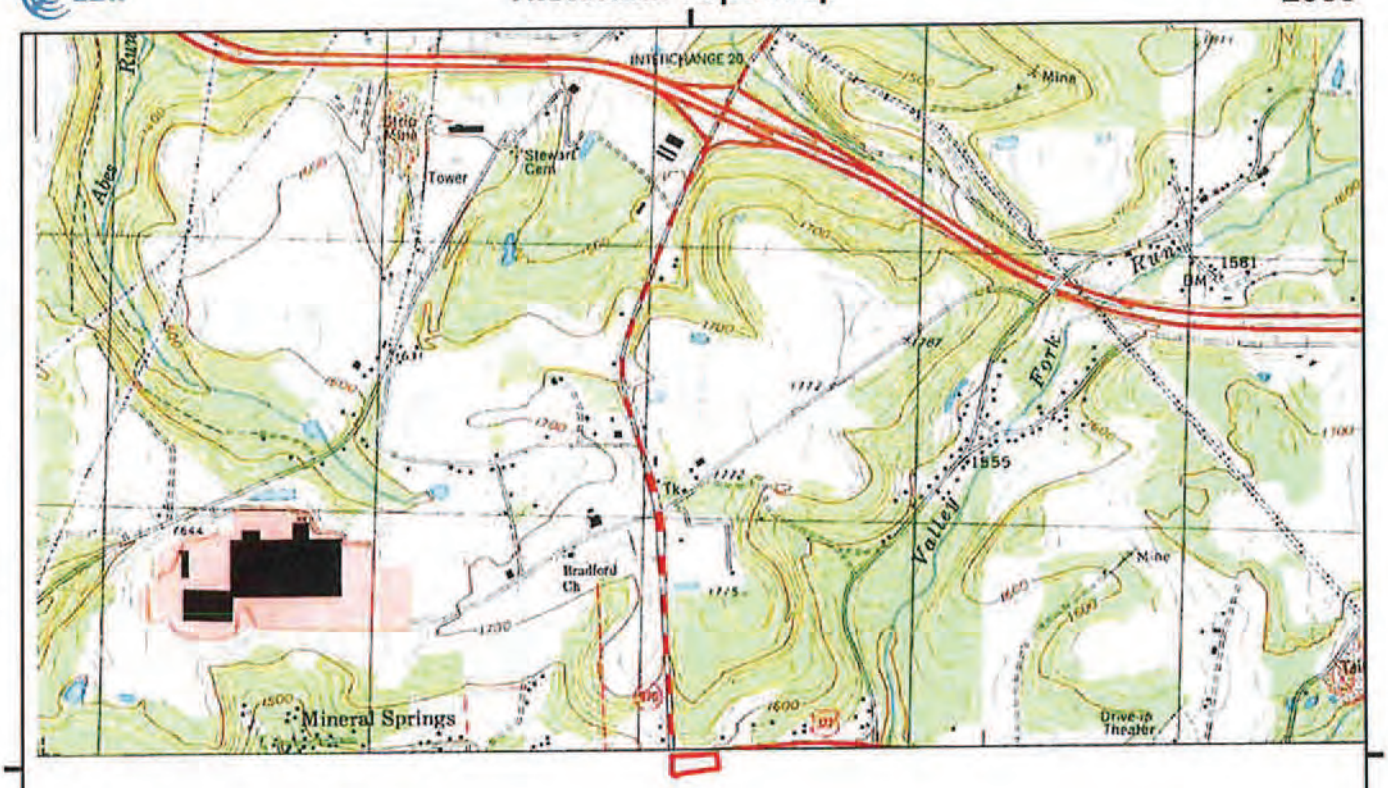
TP, Wallaceton, 2013, 7.5-minute
N, Lecontes Mills, 2013, 7.5-minute
SW, Glen Richey, 2013, 7.5-minute
NW, Clearfield, 2013, 7.5-minute

SITE NAME: Woodland Food & Fuel
ADDRESS: 2829 Woodland Bigler Highway
Woodland, PA 16881
CLIENT: Mountain Research, Inc.

N

Historical Topo Map

2000



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

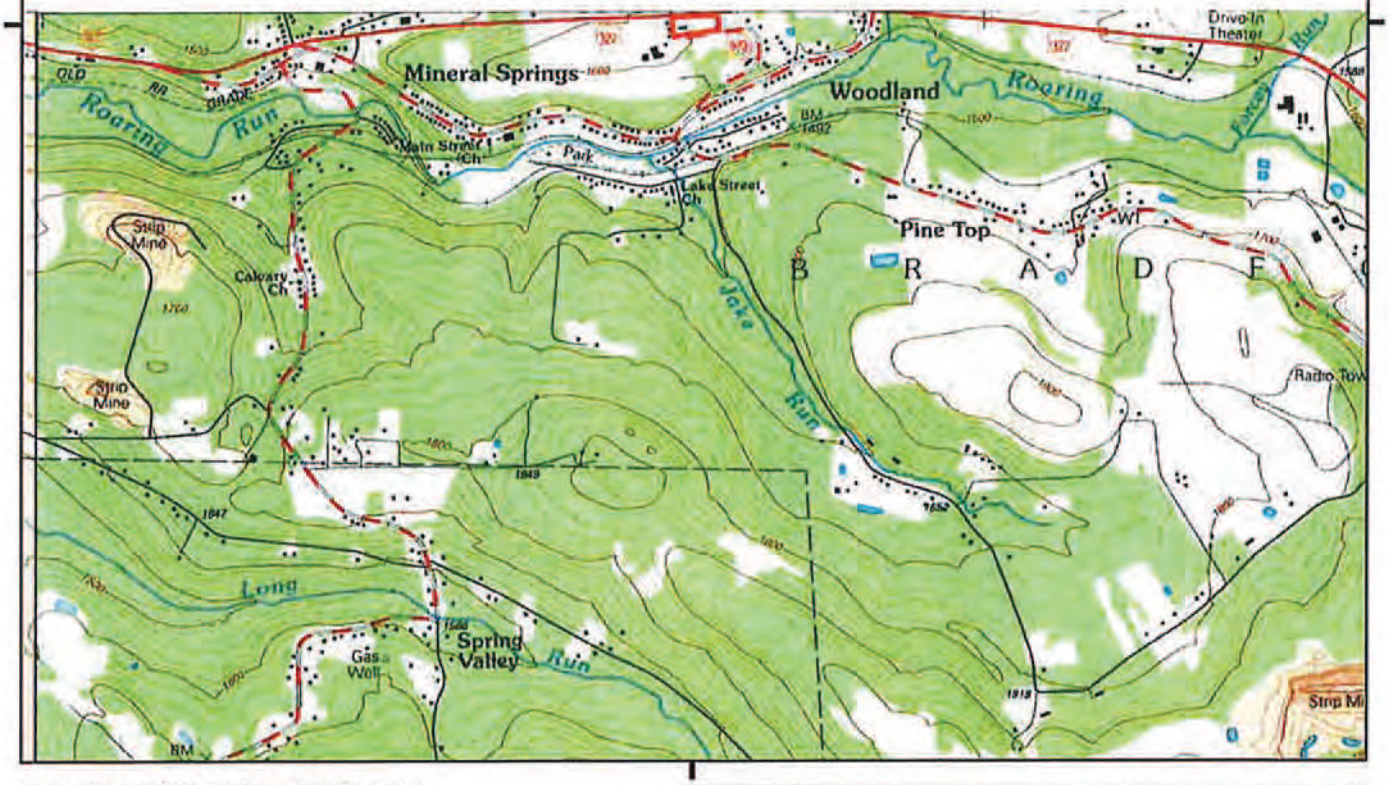
N, Lecontes Mills, 2000, 7.5-minute

SITE NAME: Woodland Food & Fuel
ADDRESS: 2829 Woodland Bigler Highway
Woodland, PA 16881
CLIENT: Mountain Research, Inc.

N

Historical Topo Map

1993



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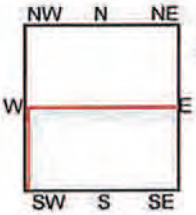
0 Miles 0.25 0.5 1 1.5



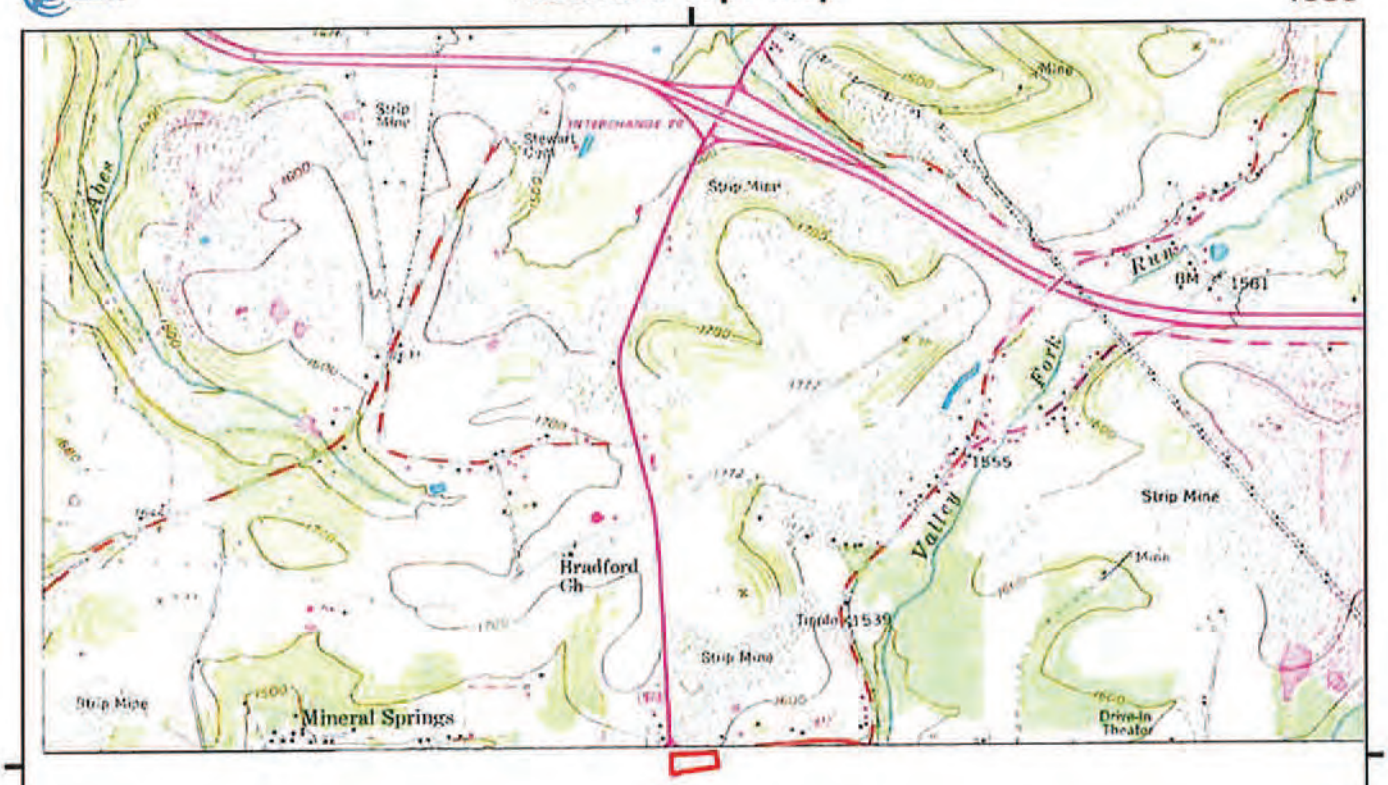
TP, Wallaceton, 1993, 7.5-minute
SW, Glen Richey, 1993, 7.5-minute

SITE NAME: Woodland Food & Fuel
ADDRESS: 2829 Woodland Bigler Highway
Woodland, PA 16881
CLIENT: Mountain Research, Inc.

N

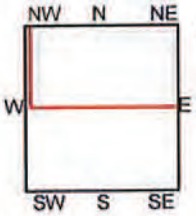
Historical Topo Map

1986



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



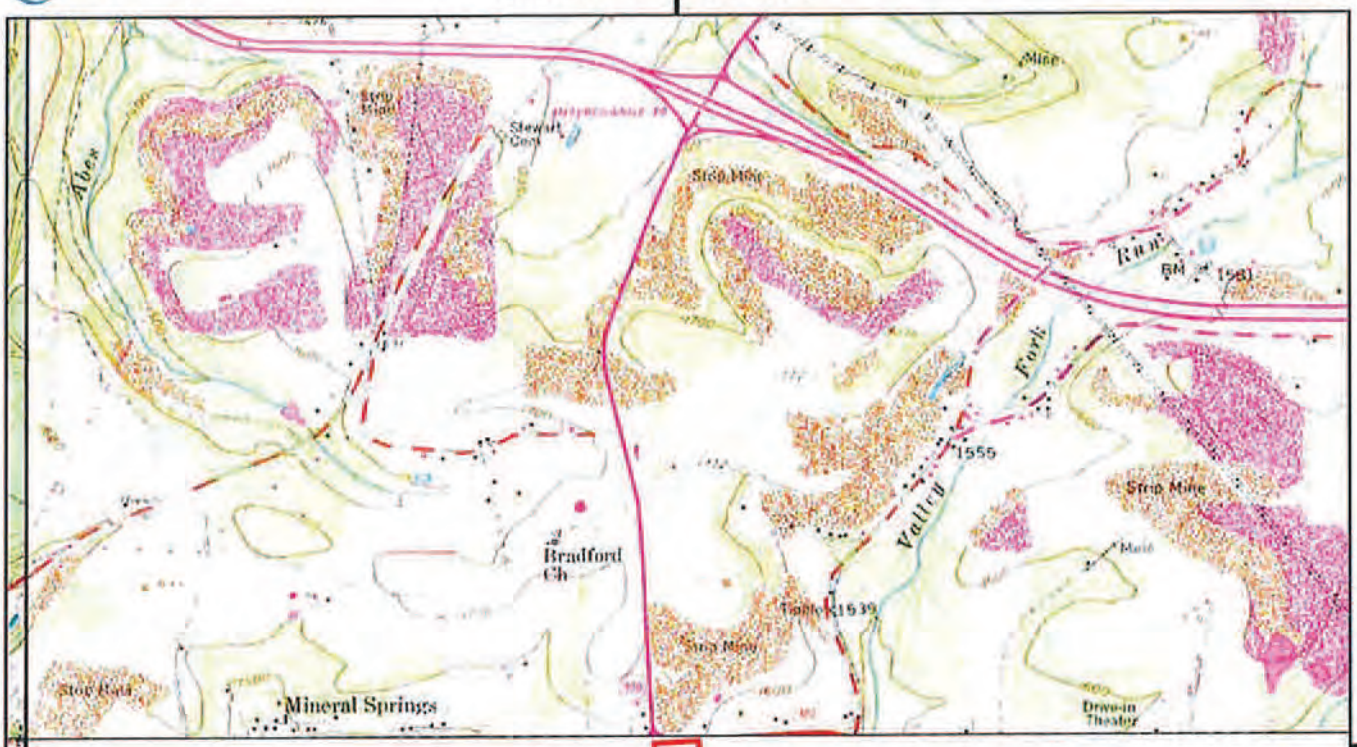
N, Lecontes Mills, 1986, 7.5-minute

SITE NAME: Woodland Food & Fuel
ADDRESS: 2829 Woodland Bigler Highway
Woodland, PA 16881
CLIENT: Mountain Research, Inc.

N

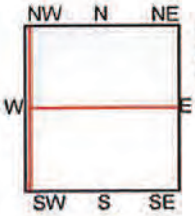
Historical Topo Map

1981



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



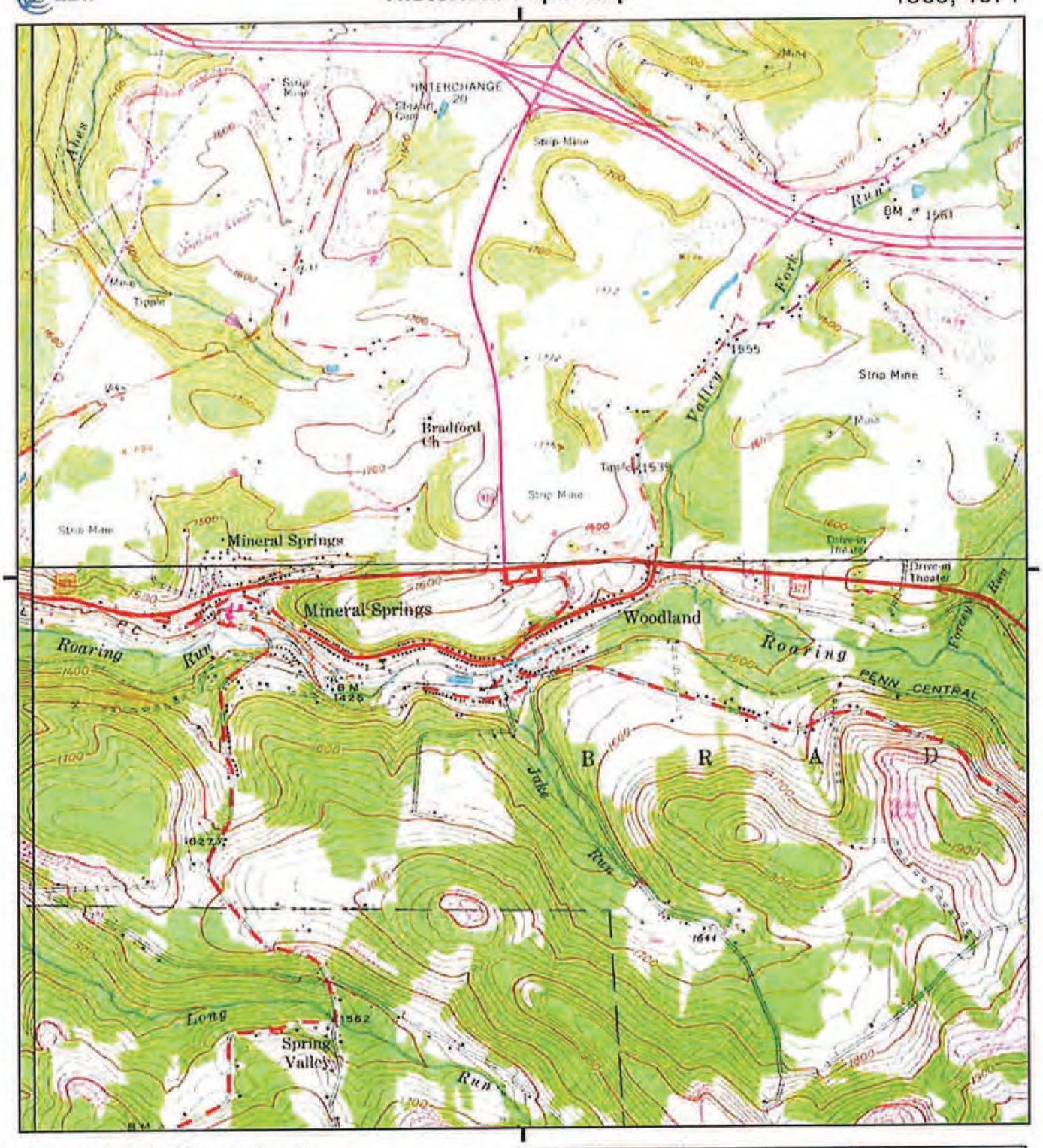
N, Lecontes Mills, 1981, 7.5-minute
SW, Glen Richey, 1981, 7.5-minute
NW, Clearfield, 1981, 7.5-minute
SW, GLENRICHEY, 1981, 7.5-minute

SITE NAME: Woodland Food & Fuel
ADDRESS: 2829 Woodland Bigler Highway
Woodland, PA 16881
CLIENT: Mountain Research, Inc.

N

Historical Topo Map

1969, 1971



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

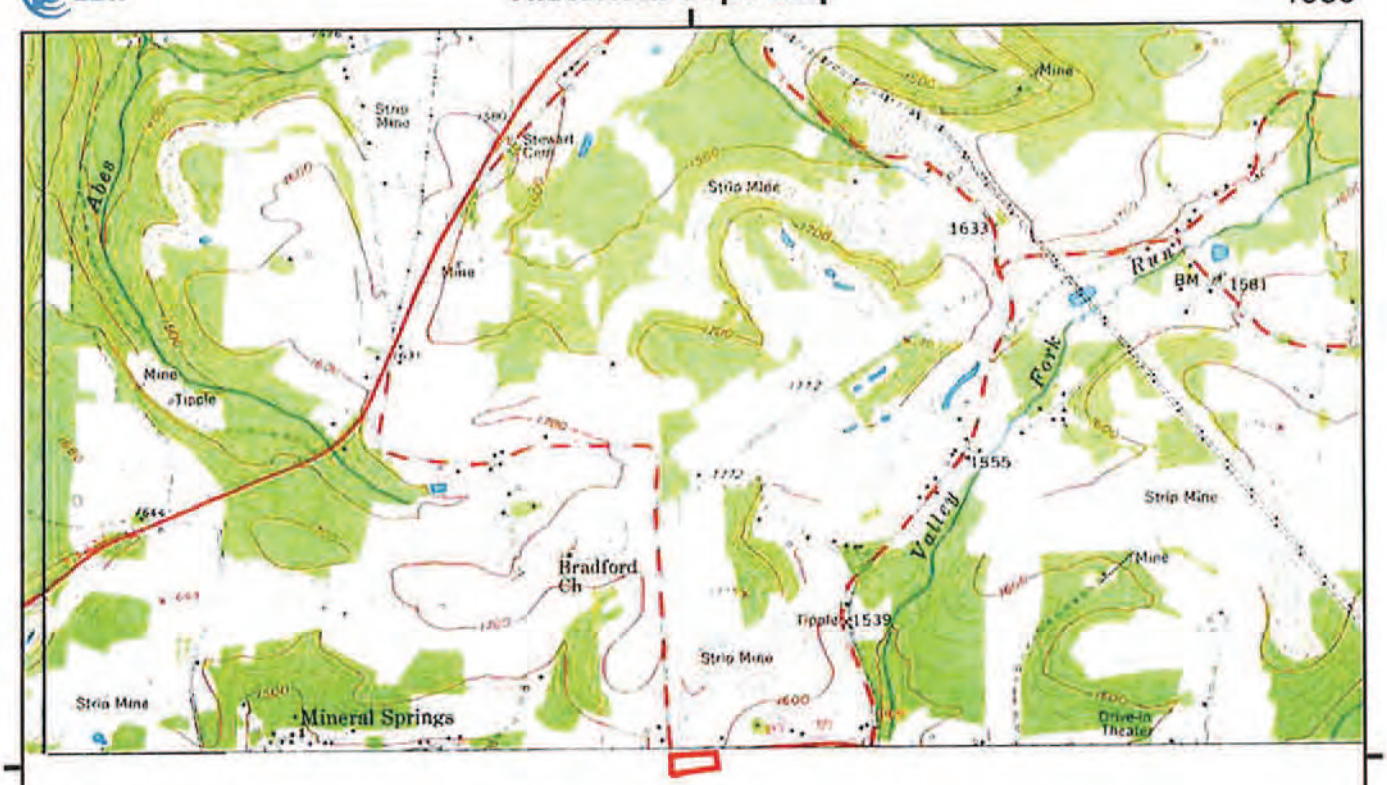
TP, Wallaceton, 1969, 7.5-minute
N, Lecontes Mills, 1971, 7.5-minute
SW, Glen Richey, 1969, 7.5-minute
SW, GLENRICHEY, 1969, 7.5-minute
NW, Clearfield, 1971, 7.5-minute

SITE NAME: Woodland Food & Fuel
ADDRESS: 2829 Woodland Bigler Highway
Woodland, PA 16881
CLIENT: Mountain Research, Inc.

N

Historical Topo Map

1959



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

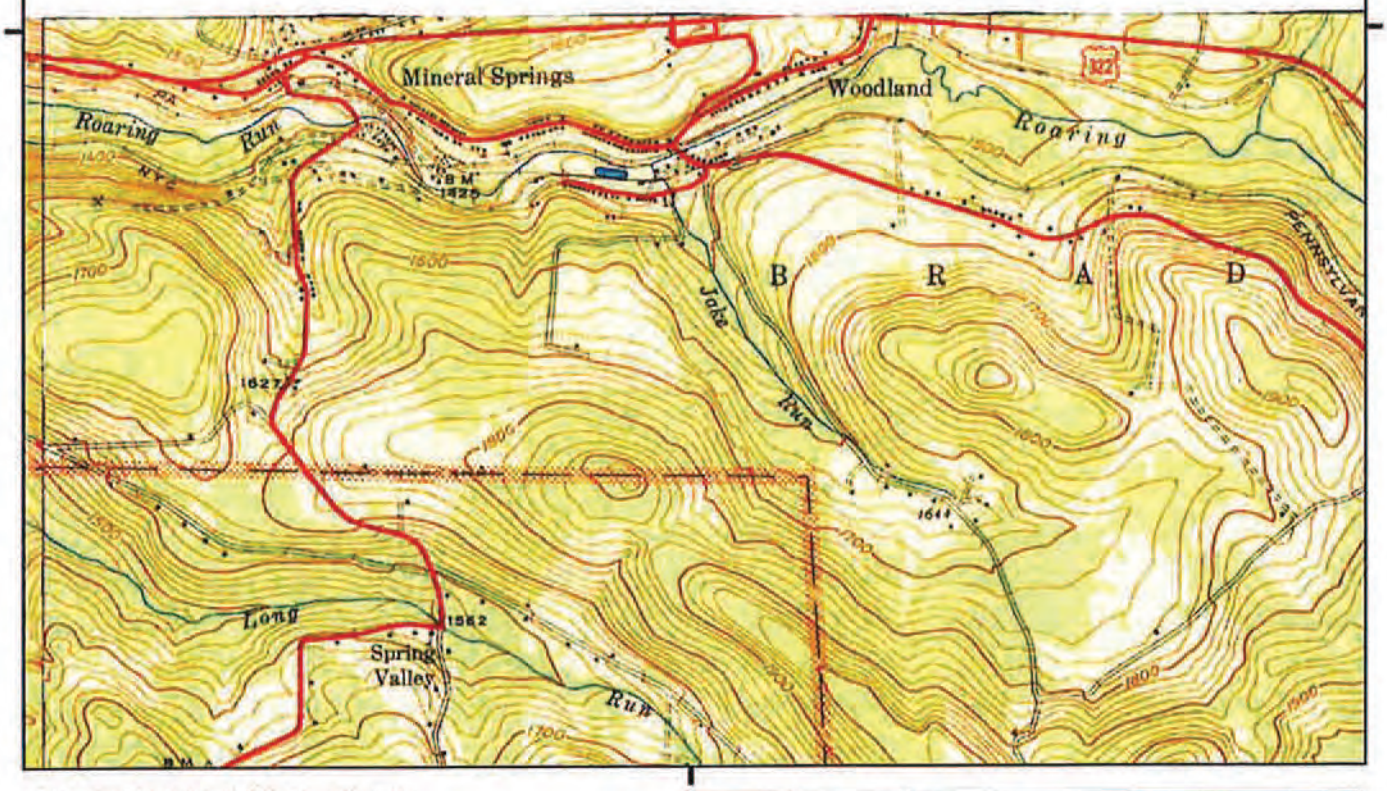
N, Lecontes Mills, 1959, 7.5-minute
NW, Clearfield, 1959, 7.5-minute

SITE NAME: Woodland Food & Fuel
ADDRESS: 2829 Woodland Bigler Highway
Woodland, PA 16881
CLIENT: Mountain Research, Inc.

N

Historical Topo Map

1946



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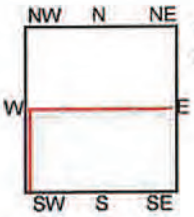


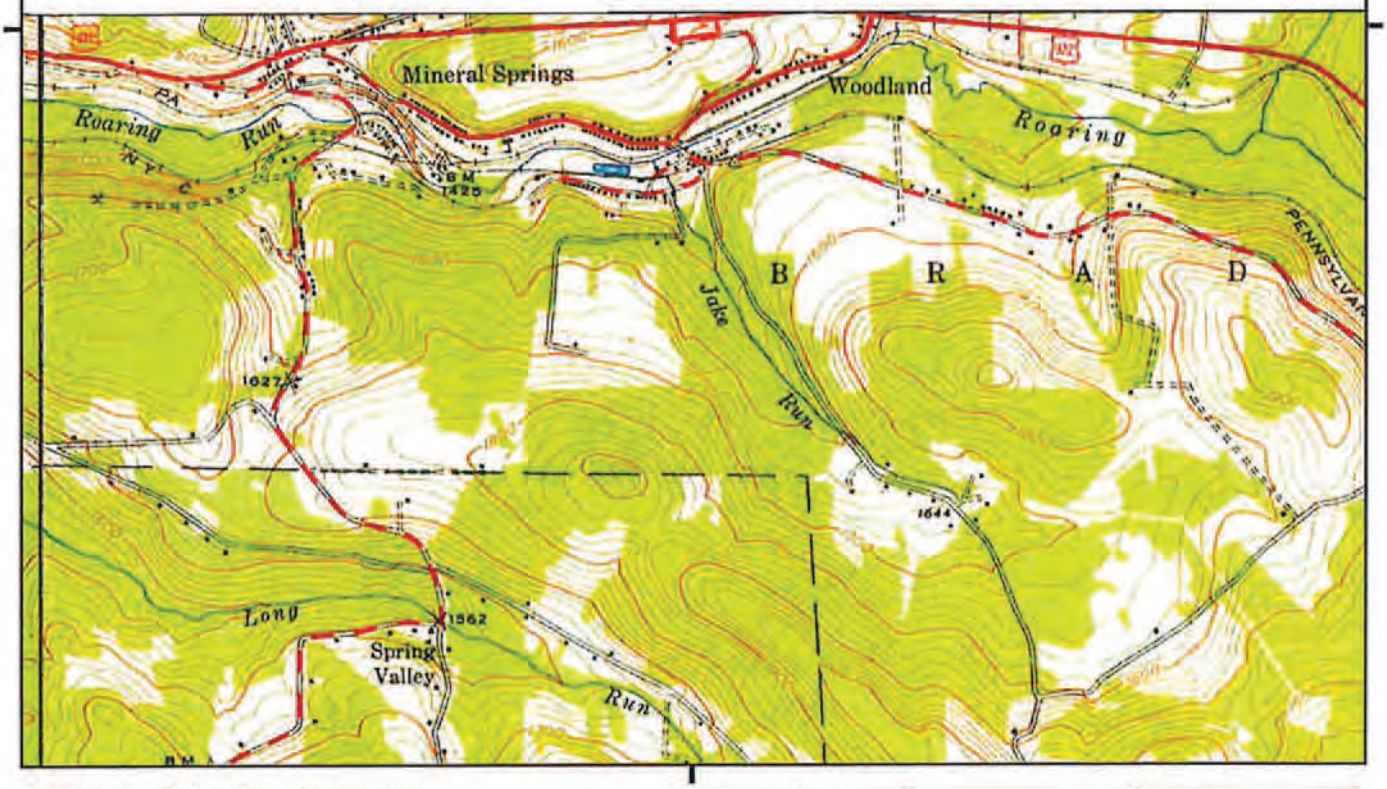
TP, Wallaceton, 1946, 7.5-minute
SW, Glen Richey, 1946, 7.5-minute

SITE NAME: Woodland Food & Fuel
ADDRESS: 2829 Woodland Bigler Highway
Woodland, PA 16881
CLIENT: Mountain Research, Inc.

N

Historical Topo Map

1944, 1945



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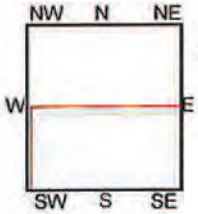


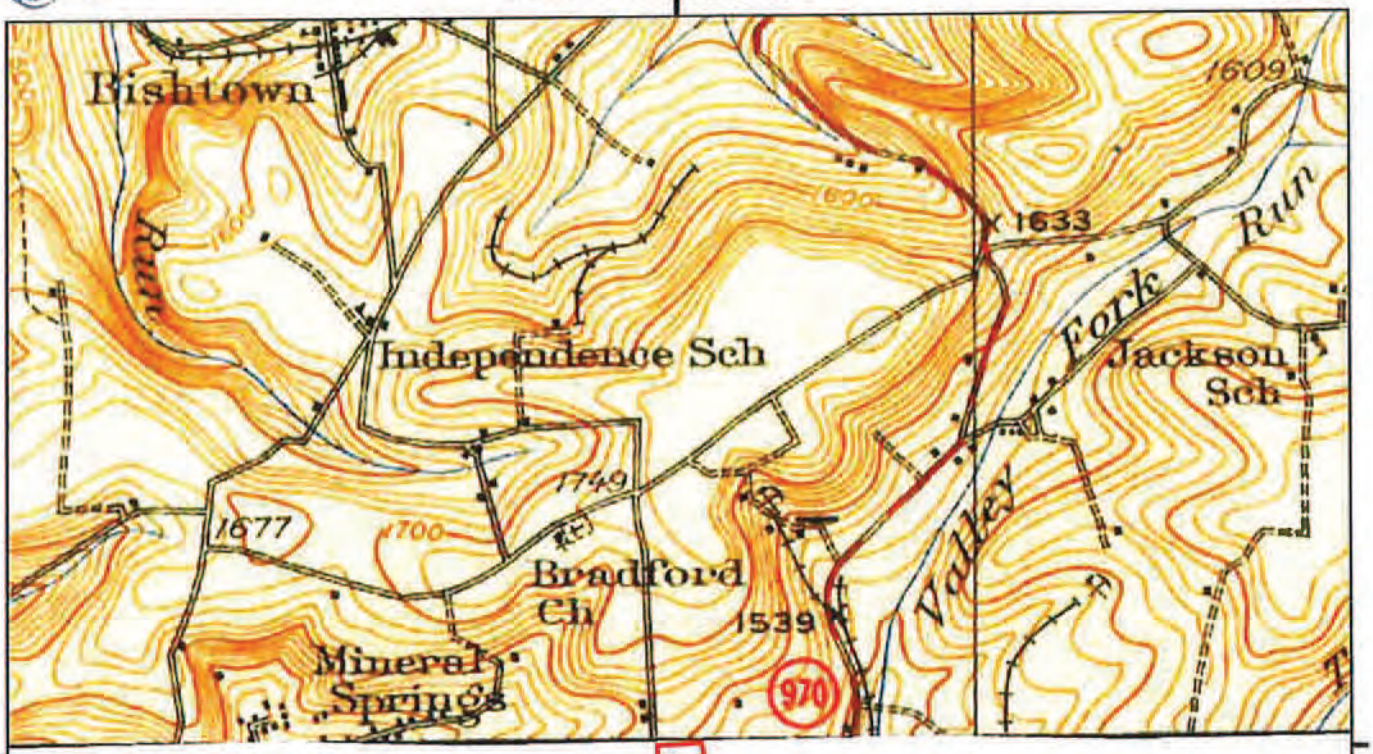
TP, Wallaceton, 1945, 7.5-minute
SW, Glen Richey, 1944, 7.5-minute

SITE NAME: Woodland Food & Fuel
ADDRESS: 2829 Woodland Bigler Highway
Woodland, PA 16881
CLIENT: Mountain Research, Inc.

N

Historical Topo Map

1932



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

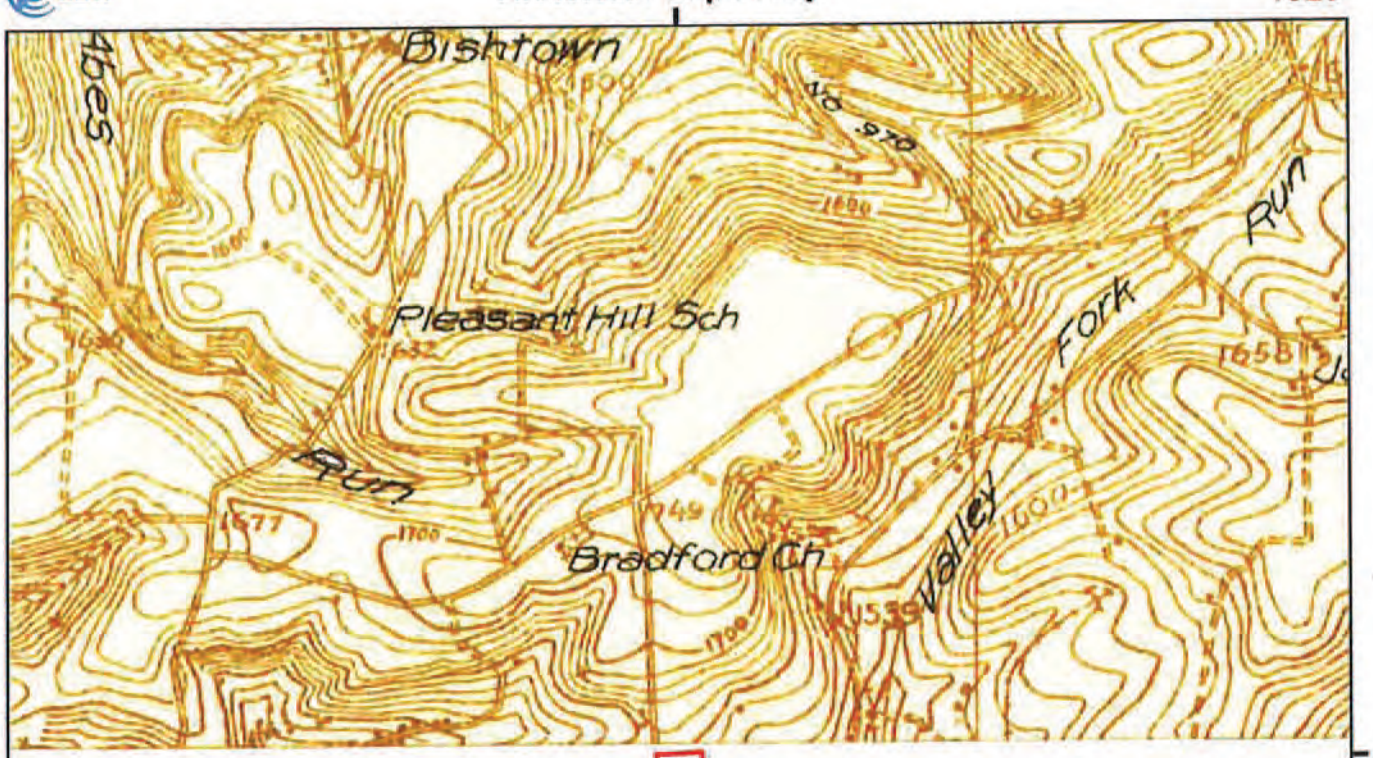
N, Clearfield, 1932, 15-minute

SITE NAME: Woodland Food & Fuel
ADDRESS: 2829 Woodland Bigler Highway
Woodland, PA 16881
CLIENT: Mountain Research, Inc.

N

Historical Topo Map

1929



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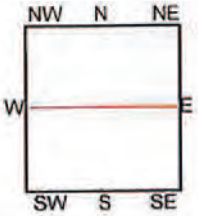
0 Miles 0.25 0.5 1 1.5



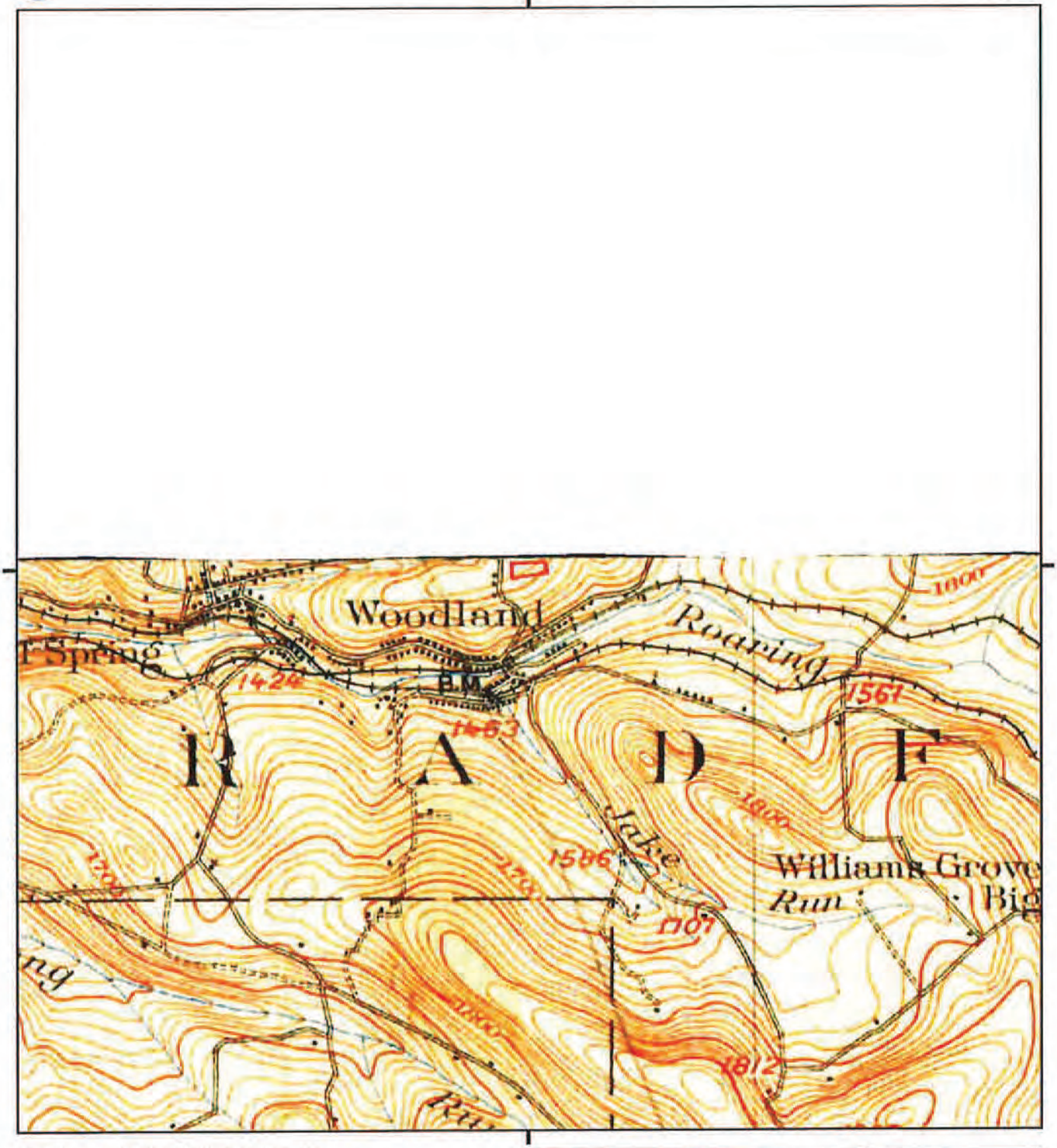
N, Clearfield, 1929, 15-minute

SITE NAME: Woodland Food & Fuel
ADDRESS: 2829 Woodland Bigler Highway
Woodland, PA 16881
CLIENT: Mountain Research, Inc.

N

Historical Topo Map

1905



This report includes information from the following map sheet(s).

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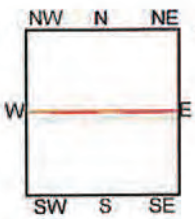


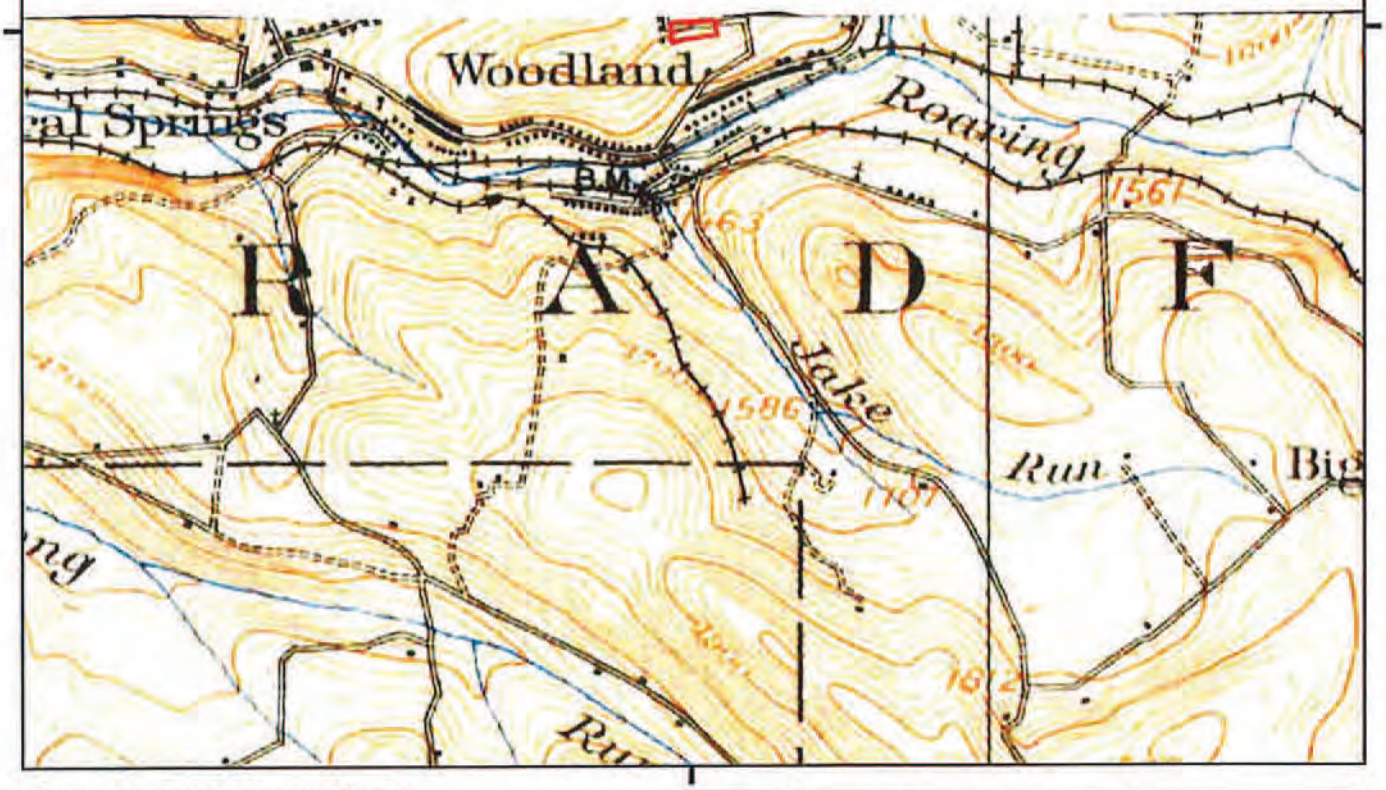
TP, Houtzdale, 1905, 15-minute

SITE NAME: Woodland Food & Fuel
ADDRESS: 2829 Woodland Bigler Highway
Woodland, PA 16881
CLIENT: Mountain Research, Inc.

N

Historical Topo Map

1903



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

TP, Houtzdale, 1903, 15-minute

SITE NAME: Woodland Food & Fuel
ADDRESS: 2829 Woodland Bigler Highway
Woodland, PA 16881
CLIENT: Mountain Research, Inc.

N

Woodland Food & Fuel

2829 Woodland Bigler Highway

Woodland, PA 16881

Inquiry Number: 5151034.9

January 05, 2018

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

01/05/18

Site Name:

Woodland Food & Fuel
2829 Woodland Bigler Highway
Woodland, PA 16881
EDR Inquiry # 5151034.9

Client Name:

Mountain Research, Inc.
825 25th Street
Altoona, PA 16601
Contact: Matt Ference

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2008	1"=500'	Flight Year: 2008	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
2000	1"=500'	Flight Date: April 30, 2000	USGS
1993	1"=500'	Acquisition Date: April 08, 1993	USGS/DOQQ
1991	1"=750'	Flight Date: April 03, 1991	USGS
1989	1"=1000'	Flight Date: June 30, 1989	USGS
1976	1"=1000'	Flight Date: July 19, 1976	USGS
1971	1"=500'	Flight Date: May 23, 1971	USGS
1969	1"=500'	Flight Date: March 23, 1969	USGS
1960	1"=500'	Flight Date: May 04, 1960	USGS
1958	1"=500'	Flight Date: May 18, 1958	USDA
1956	1"=500'	Flight Date: October 25, 1956	USGS
1940	1"=500'	Flight Date: October 22, 1940	USDA

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.


INQUIRY #: 5151034.9
YEAR: 2010
= 500'
N
EDR


INQUIRY #: 5151034.9
YEAR: 2008
= 500'
N
EDR

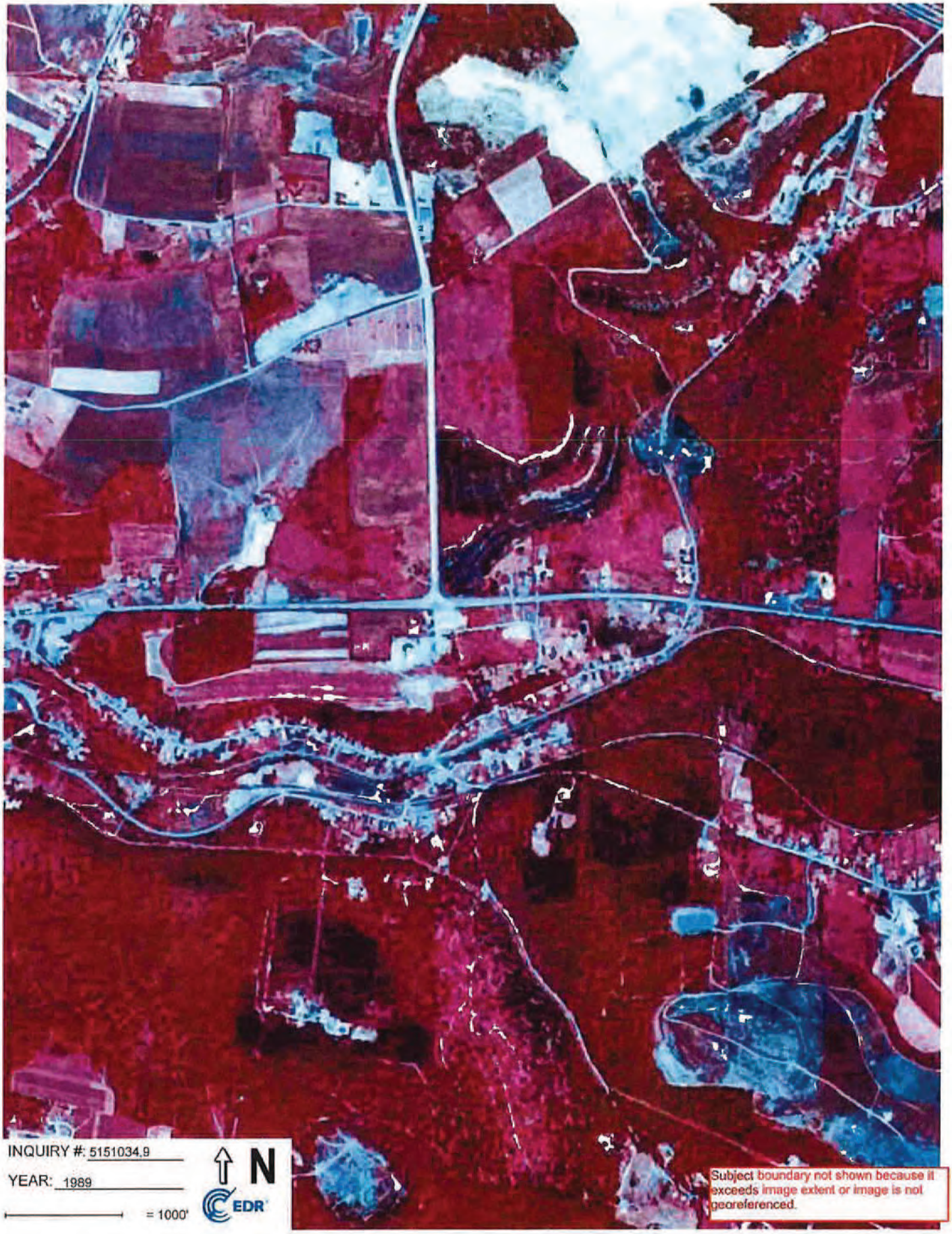

INQUIRY #: 5151034.9
YEAR: 2006
= 500'
N
EDR


INQUIRY #: 5151034.9
YEAR: 2005
= 500'
N
EDR


INQUIRY #: 5151034.9
YEAR: 2000
= 500'
N
EDR


INQUIRY #: 5151034.9
YEAR: 1993
= 500'
N
EDR
Subject boundary not shown because it exceeds image extent or image is not georeferenced.


INQUIRY #: 5151034.9
YEAR: 1991
= 750'
N
EDR
Subject boundary not shown because it exceeds image extent or image is not georeferenced.


INQUIRY #: 5151034.9
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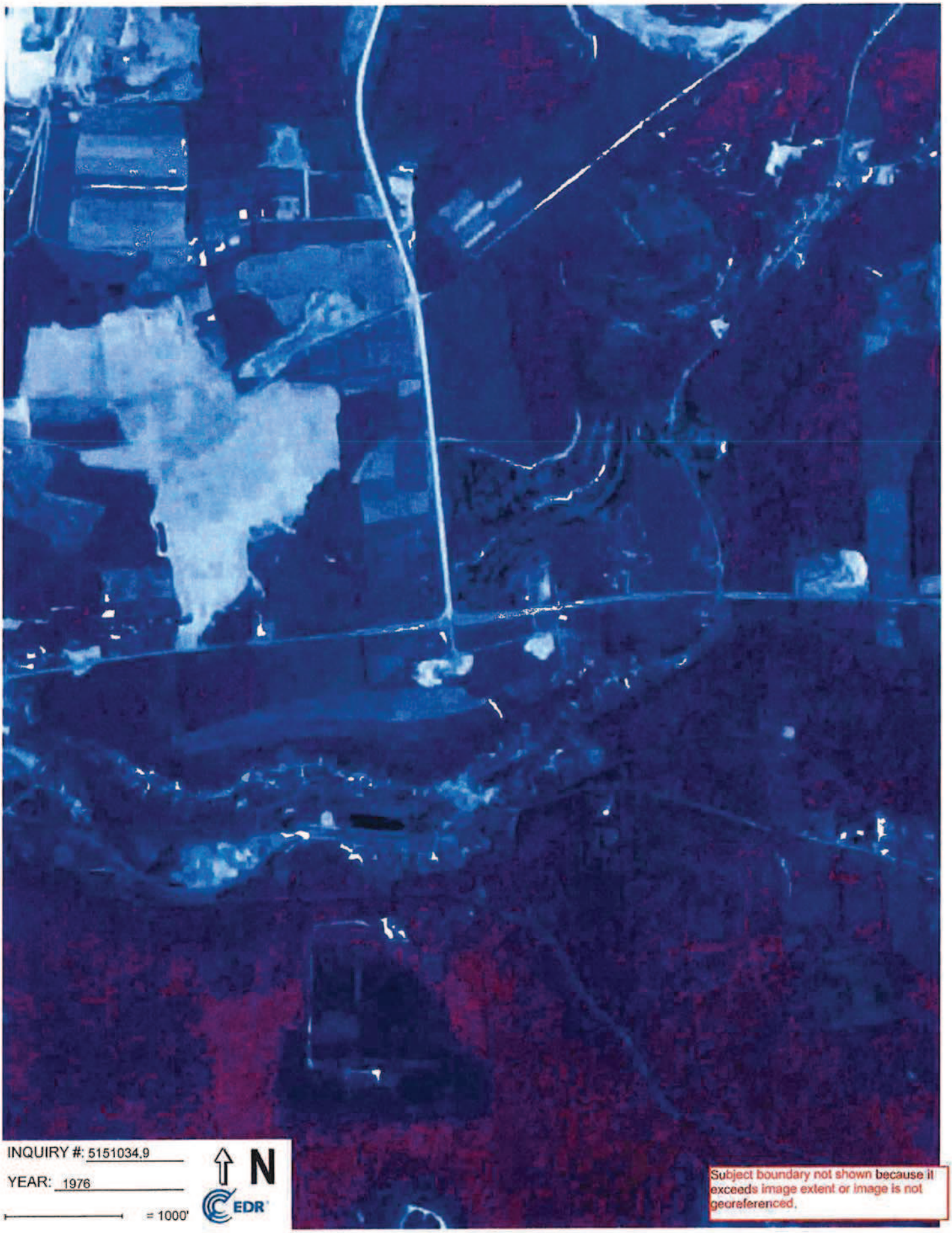
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YEAR: 1976
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INQUIRY #: 5151034.9

YEAR: 1971

= 500'

N

EDR

Subject boundary not shown because it exceeds image extent or image is not georeferenced.

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YEAR: 1969

= 500'

N

EDR

Subject boundary not shown because it exceeds image extent or image is not georeferenced.


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YEAR: 1969
= 500'
N
EDR
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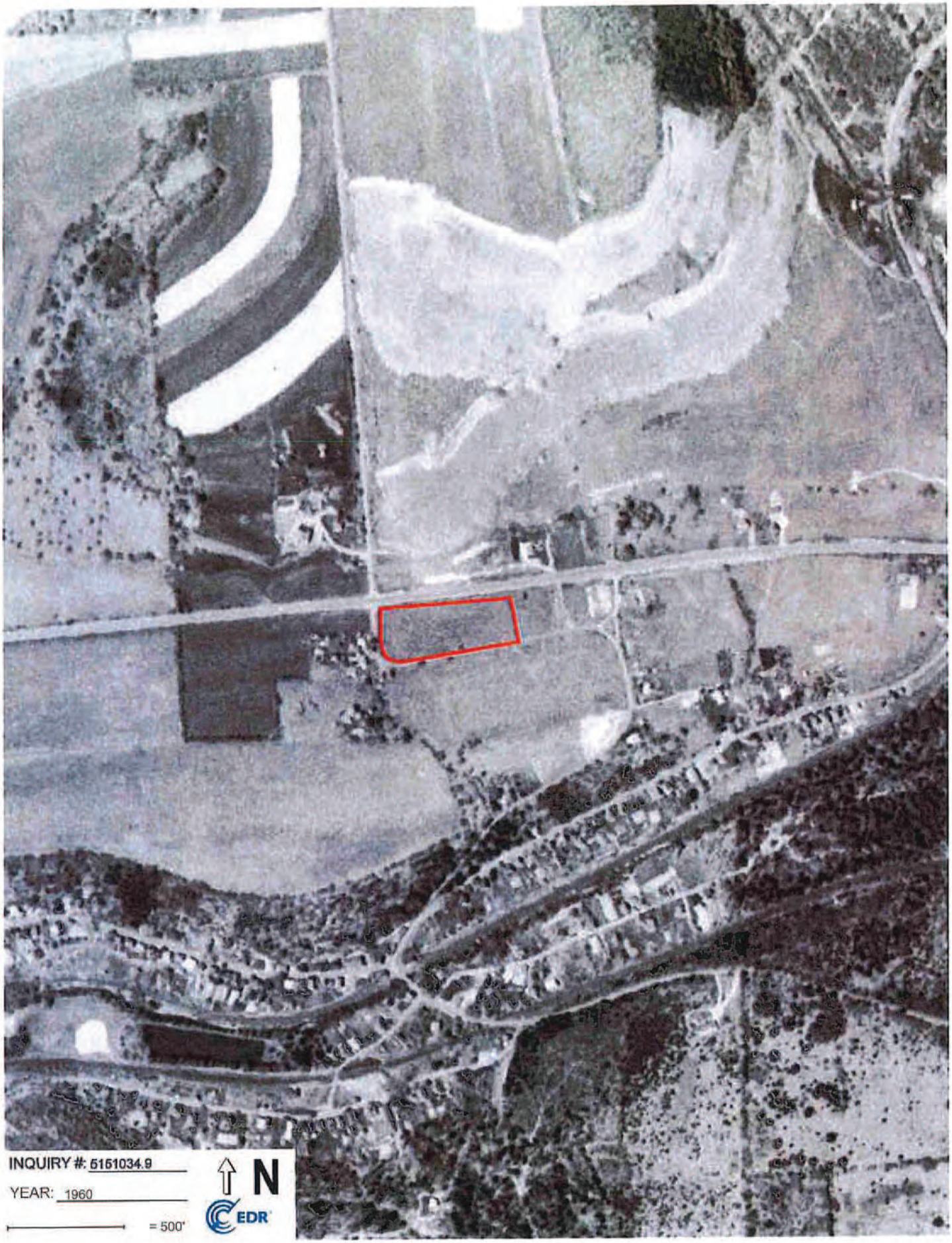
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YEAR: 1960
= 500'
N
EDR


INQUIRY #: 5151034.9
YEAR: 1958
= 500'
N
EDR


INQUIRY #: 5151034.9
YEAR: 1956
= 500'
N
EDR


INQUIRY #: 5151034.9
YEAR: 1940
= 500'
N
EDR

Woodland Food & Fuel
2829 Woodland Bigler Highway
Woodland, PA 16881

Inquiry Number: 5151034.5
January 11, 2018

The EDR-City Directory Image Report

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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Data by

infoUSA®

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2014	☑	☑	EDR Digital Archive
2010	☑	☑	EDR Digital Archive
2005	☑	☑	EDR Digital Archive
2000	☐	☐	EDR Digital Archive
1995	☐	☐	EDR Digital Archive
1992	☐	☐	EDR Digital Archive

FINDINGS

TARGET PROPERTY STREET

2829 Woodland Bigler Highway
Woodland, PA 16881

Year	CD Image	Source	
WOODLAND BIGLER HWY			
2014	pg A2	EDR Digital Archive	
2010	pg A4	EDR Digital Archive	
2005	pg A6	EDR Digital Archive	
2000	-	EDR Digital Archive	Target and Adjoining not listed in Source
1995	-	EDR Digital Archive	Street not listed in Source
1992	-	EDR Digital Archive	Street not listed in Source

FINDINGS

CROSS STREETS

Year	CD Image	Source	
SHAWVILLE HWY			
2014	pg. A1	EDR Digital Archive	
2010	pg. A3	EDR Digital Archive	
2005	pg. A5	EDR Digital Archive	
2000	-	EDR Digital Archive	Target and Adjoining not listed in Source
1995	-	EDR Digital Archive	Street not listed in Source
1992	-	EDR Digital Archive	Street not listed in Source

City Directory Images

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

SHAWVILLE HWY 2014

163	CONKLIN, EUGENE F
255	CASHER, SAMUEL W
	SHUGARTS, DEBBIE L
264	LEONARD, STEPHEN J
274	SALTSMAN TODD
	SALTSMAN, TODD A
282	SELLERS, ALLISON
296	GOODROW, HELEN I
340	HUNT, DOUGLAS L
507	ARMSTRONG TERMINAL INC
	SAMUEL J LANSBERRY INC
513	CRESS-WOOD COMPANY LLC
	WOODLAND EQUIPMENT & SUPPLY CO
523	HUGILL, JAMES L
533	KITKO, WILLIAM F
549	CASSIDY, MARJORIE J
1192	CON-WAY FREIGHT INC
1374	UNITED STATES POSTAL SERVICE
1715	CENTER CONCRETE COMPANY
2001	CONNER, THOMAS
2065	SMITCHKO TOOL & DIE INC
2497	COULTER, DANIEL
2758	LUZIER QUALITY SVC
	LUZIER, MARK E
3018	GRAHAM, MICHAEL A
3057	KUNKLE, RICHARD A
3075	OCCUPANT UNKNOWN,
3097	DIXON, JANICE M
3104	BISHOP, JERRY W
3145	MOWERY, JASON P
3162	OCCUPANT UNKNOWN,
3179	YINGLING, DAN L
3209	WEBBER, TAMMY M
3217	TAYLOR, JON M
3226	RUFFNER, MARK A
3460	SHAW, LON
3688	KEPHART, MARY
3717	CAPITAL IMPROVEMENTS
3750	HUBLER, SANDY L
3800	KEPHART, MARY L
3859	HINCHLIFFE, MARK J
3929	NELSON, KELLY R
	PA CLEANING SYSTEMS
3977	GABEL, PAMELA L
	TAYLOR, THOMAS
4001	NORRIS, CHRIS N
4063	OCCUPANT UNKNOWN,
4255	FINNIGAN, REED E

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

WOODLAND BIGLER HWY 2014

40	MINIT MART 246
69	PARTASH, THOMAS G
	TOM PARTASH RACING
410	BENDER, DON A
475	MCCRACKEN, WARD H
482	RUPP, HENRY
510	JORDAN, GEORGE A
531	OCCUPANT UNKNOWN,
550	FREEMAN, DAVID L
579	OCCUPANT UNKNOWN,
606	OCCUPANT UNKNOWN,
649	POOLE, BONNI L
669	JEFFRIES, JAMES D
762	KEITH, JAMES L
776	ZIBILICH, G
840	NICKLAS, BRUCE A
843	OCCUPANT UNKNOWN,
854	PICARD, APRIL D
887	READ, RONALD E
910	ORTMAN, STEVEN
974	BROWN, ANDREA D
1026	DIMENSIONS BY SARA
1647	LITTLE, FRANK E
1717	SHOFESTALL, SHANNA
1752	NIXON, DAYTON V
2534	MARTELL, JEFFREY L
2556	WARD, HARRY L
2718	SHIREY, AMY M
2829	GIOS WOODLAND FOOD & FUEL

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

SHAWVILLE HWY 2010

163	CONKLIN, EUGENE F
255	CASHER, SAMUEL W
274	SALTSMAN TODD
	SALTSMAN, TODD A
296	DECK LIGHTS AND DECALS
	SHIREY, EDWARD J
340	HUNT, DOUGLAS L
507	ARMSTRONG TERMINAL INC
	SAMUEL J LANSBERRY INC
513	CRESS-WOOD CO LLC
	WOODLAND EQUIPMENT & SUPPLY CO
523	HUGILL, JAMES L
533	KITKO, WILLIAM F
549	PARKS, CHAR
1192	CON-WAY FREIGHT INC
1374	UNITED STATES POSTAL SERVICE
1715	CENTRE CONCRETE
2001	CONNER, THOMAS
2065	SMITCHKO TOOL & DIE INC
2497	COULTER, REBECCA S
3018	GRAHAM, MICHAEL A
	MGM EXCAVATING AND LOGGING
3075	DIXON, NORMAN B
3097	DIXON BOYD N
	DIXON, JANICE M
3104	BISHOP, JAMES R
3145	PIFER, LEONA I
3162	BISHOP, JERRY W
3179	YINGLING, DAN L
3209	WEBBER, TAMMY M
3217	MILLINDER, MICHAEL D
3226	ANDERSON, JENI
3460	SHAW, LORI L
3688	KEPHART, SHARON
3717	CAPITAL IMPROVEMENTS
3750	BEZILLA, MARK A
3800	KEPHART, CORINNA L
3859	HINCHLIFFE, MARK J
3929	NELSON, KELLY R
	PA CLEANING SYSTEMS
	REED & NORRIS ENTERPRISES INC
3977	GABEL, WILLIAM C
4001	NORRIS, CHRIS N
4255	FINNIGAN, REED E

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

WOODLAND BIGLER HWY 2010

69	PARTASH, THOMAS G
410	BENDER, DONALD C
475	MCCRACKEN, WARD H
482	RUPP, MARY H
550	FREEMAN, DAVID L
579	WELKER, MARGARET A
691	CLASSIC MUSCLE CARS
762	KEITH, JAMES L
776	ZIBILICH, G
843	GRUMBLATT, JASON D
854	PICARD, APRIL D
974	BROWN, ANDREA D
1026	DIMENSIONS BY SARA
1435	PETERS, BOYD G
1637	LITTLES DRIVE IN AUTO SALES
1647	LITTLE, FRANK E
1752	NIXON, DAYTON V
2534	MARTELL, JEFFREY L
2556	WARD, HARRY L
2718	SHIREY, AMY M
2829	GIOS WOODLAND FOOD & FUEL

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

SHAWVILLE HWY 2005

255	CASHER, SAMUEL W
264	BUCK, RUSSELL L
274	MCCRACKEN, BLAIR E
296	SHIREY, EDWARD
507	ARMSTRONG TERMINAL INC
	WOODLAND EQUIPMENT & SUPPLY CO
513	CRESS-WOOD COMPANY
523	HUGILL, JAMES C
533	KITKO, WILLIAM H
549	CASSIDY, MARJORIE J
921	BLOOM, JOSEPH
1192	CON-WAY CENTRAL EXPRESS INC
1374	PYRAMID HEALTHCARE
	UNITED STATES POSTAL SERVICE
2497	COULTER, DANIEL
2758	DIXON, MELISSA A
3145	MCKENDRICK, TAMMY M
3179	BISHOP, WILLIAM L
3217	STEPHENSON, ALBERT
3604	BEZILLA, MARK A
3859	HINCHLIFFE, MARK J
3929	NELSON, KELLY R
	PA CLEANING SYSTEMS
3977	GABEL, WILLIAM P
4001	NORRIS, CHRIS
4063	BUCK, ROBERT E
4255	FINNIGAN, MARCIA J

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

WOODLAND BIGLER HWY 2005

410	BENDER, CHAD
475	HANSARD, JANET
482	RUPP, GLEN
510	JORDAN, GEORGE A
550	FREEMAN, DAVID L
669	LOMBARDO, GUY M
762	KEITH, JAMES L
776	KRISE, RUSSELL A
854	MILLINDER, MICHAELA
887	SHERIDAN, DANIEL M
1026	DIMENSIONS BY SARA
1647	LITTLE, FRANK E
1752	D&M AUTO REPAIR
	NIXON, DAYTON V

Woodland Food & Fuel
2829 Woodland Bigler Highway
Woodland, PA 16881

Inquiry Number: 5151034.3
January 04, 2018

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

01/04/18

Site Name:	Client Name:
Woodland Food & Fuel	Mountain Research, Inc.
2829 Woodland Bigler Highway	825 25th Street
Woodland, PA 16881	Altoona, PA 16601
EDR Inquiry # 5151034.3	Contact: Matt Ference

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Mountain Research, Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

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Certified Sanborn Results:

Certification # AF5B-4D58-ADFF

PO # 24591

Project 4923.18.01.50

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: AF5B-4D58-ADFF

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

The Sanborn Library LLC Since 1866™

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APPENDIX E

PAGWIS DATABASE LISTINGS

DEPARTMENT OF CONSERVATION & NATURAL RESOURCES
BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY
WATER WELL PROGRAM
3240 Schoolhouse Rd
Middletown, PA 17057
717-702-2017

WATER WELL INFORMATION REPORT

PA Well ID: **661804** Local Well ID: Local Permit #:

LOCATION INFORMATION

Owner:	**Gios BBQ & Gas Station**	Original Paper Record Image Available:	**No**
Address of Well:	**2829 Twenty-Eighth Division Hwy 16881**		
County:	**CLEARFIELD**		
Municipality:	**BRADFORD TWP.**		
Latitude:	**40.99954**	Coordinate Method:	**Commercial Street Atlas Program**
Longitude:	**-78.34647**	Data Reliability:	
Description of Well Location and Other Notes:			

WELL CONSTRUCTION INFORMATION

Well Driller:	**TERRA TESTING, INC.**	License:	**2309**	Driller Well ID:	**18510-RW-1**
Type of Activity:	**New Well**	Date Drilled:	**1/16/2018**	Drilling Method:	**BORED OR AUGERED**
Well Depth (ft):	**14.5**	Well Finish:	**PERFORATED OR SLOTTED**		

WELL SIZE

Top (ft)	Bottom (ft)	Diameter (in)
0	**14.5**	**4**

CASING

Top (ft)	Bottom (ft)	Diameter (in)	Casing Material	Seal Top	Seal Bottom	Seal Type
0	**9.5**	**4**	**PVC OR OTHER PLASTIC**	**5.5**	**7.5**	**BENTONITE CHIPS OR PELLETS**

SCREEN/SLOT

Top (ft)	Bottom (ft)	Diameter (in)	Type	Material	Size (in)	Packing
9.5	**14.5**	**4**	**PERFORATED, POROUS, OR SLOTTED CASING**	**PLASTIC**	**0.02**	**SAND - SCREENED**

GROUNDWATER AND GEOLOGICAL INFORMATION

Well Yield (GPM - gal per min):

Yield Measurement Method:

Water Level when not pumped: (ft below land surface)

Water Level after yield test: (ft below land surface)

Length of Yield Test (minutes):

Saltwater Zone (ft):

Use of Well: **WITHDRAWAL**

Use of Water:

MATERIALS WELL PENETRATES

Top (ft)	Bottom (ft)	Description
0	**14.5**	**Fill, brown silty clay, gravel, boulders, hard, gray**

Depth to Bedrock (ft):

Was Well Drilled Into Bedrock? **Yes**

Date Printed: **9/20/2018**

DEPARTMENT OF CONSERVATION & NATURAL RESOURCES
BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY
WATER WELL PROGRAM
3240 Schoolhouse Rd
Middletown, PA 17057
717-702-2017

WATER WELL INFORMATION REPORT

PA Well ID: **661805** Local Well ID: Local Permit #:

LOCATION INFORMATION

Owner:	**Gios BBQ & Gas Station**	Original Paper Record Image Available:	**No**
Address of Well:	**2829 Woodland Bigler**		
County:	**CLEARFIELD**		
Municipality:	**BRADFORD TWP.**		
Latitude:	**40.99946**	Coordinate Method:	**Commercial Street Atlas Program**
Longitude:	**-78.34650**	Data Reliability:	
Description of Well Location and Other Notes:			

WELL CONSTRUCTION INFORMATION

Well Driller:	**TERRA TESTING, INC.**	License:	**2309**	Driller Well ID:	**18510-RW-2**
Type of Activity:	**New Well**	Date Drilled:	**1/16/2018**	Drilling Method:	**BORED OR AUGERED**
Well Depth (ft):	**14**	Well Finish:	**PERFORATED OR SLOTTED**		

WELL SIZE

Top (ft)	Bottom (ft)	Diameter (in)
0	**14**	**4**

CASING

Top (ft)	Bottom (ft)	Diameter (in)	Casing Material	Seal Top	Seal Bottom	Seal Type
0	**9**	**4**	**PVC OR OTHER PLASTIC**	**5**	**7**	**BENTONITE CHIPS OR PELLETS**

SCREEN/SLOT

Top (ft)	Bottom (ft)	Diameter (in)	Type	Material	Size (in)	Packing
9	**14**	**4**	**PERFORATED, POROUS, OR SLOTTED CASING**	**PLASTIC**	**0.02**	**SAND - SCREENED**

GROUNDWATER AND GEOLOGICAL INFORMATION

Well Yield (GPM - gal per min):

Water Level when not pumped: (ft below land surface)

Length of Yield Test (minutes):

Use of Well: **WITHDRAWAL**

Yield Measurement Method:

Water Level after yield test: (ft below land surface)

Saltwater Zone (ft):

Use of Water:

MATERIALS WELL PENETRATES

Top (ft)	Bottom (ft)	Description
0	**0.2**	**Asphalt**
0.2	**14**	**Fill, Brown silty clay, gravel, boulders, hard, dry**

Depth to Bedrock (ft):

Was Well Drilled Into Bedrock? **Yes**

Date Printed: **9/20/2018**

APPENDIX F

FIELD METHODS

Drilling, Soil Sampling, Well Construction Methods

Boring/monitoring well locations were selected based on site physical constraints (i.e., overhead and underground utilities, property boundaries, locations of removed tanks and distribution system, and structures). In addition to the location of potential soil and ground water contamination, borings were advanced during the site study using the following drilling methods:

Air Rotary

Air rotary drill rigs were used to advance borings for monitoring well installation. Boring diameters ranged from 10 inches to 8 inches in diameter. Soil/monitoring boring logs were constructed by identification of drill cuttings using the Unified Soil Classification System (USCS).

Hollow Stem Auger

Hollow stem auger drilling was used to advance borings for the purpose of collecting soil samples and to install monitoring wells. The auger size used was 4 inch inside diameter (7.25 inch outside diameter). Boring logs were constructed by direct observation of the split spoon and core soil samples. Soils were described using the USCS.

Direct Push Drilling

Direct push drilling was used to collect soil samples using a continuous core. Soil samples were collected in a 5 foot x 2 inch diameter PVC tube. Lithologic logs were constructed by direct observation of the continuous soil sampling liners. Soils were described using the USCS.

Soil Sample Collection

Drill cuttings from air rotary borings were scanned for volatile organic compounds (VOCs) using a photoionization detector (PID). However, these PID measurements from the air rotary drilling method should be considered qualitative due to the high potential for volatilization of compounds in the air stream. Also, the air stream was scanned during drilling advancement in order to monitor breathing zones for health and safety protocol.

Soil samples from hollow steam auger and direct push borings were screened for VOCs using a PID. Soil samples were collected from each boring on the basis of PID measurements and visual observations. Soil samples were collected for VOC by inserting an Encore® sampler or TerraCore® Sampler into the soil core. The soil from the sampler was deposited in a laboratory provided 40-milliliter glass container and preserved with methanol. For semi-volatile analysis soils were collected into a laboratory provided 4-ounce glass jar. The samples were labeled, stored in a chilled cooler, and transported to the analytical laboratory under a chain of custody.

Monitoring Well Construction

Monitoring wells were constructed of 2 inch or 4 inch diameter PVC/Steel/Wire Wrap casing. Screened intervals were constructed of .010 machine slotted casing. Appropriately sized PVC blank riser extended wells to the ground surface. The annuli between the boreholes and screened intervals was packed with clean quartz sand. The sand pack was extended approximately two feet above the top of the screened interval. The remaining vertical interval above the sand pack was Bentonite sealed to the surface. Each well was completed in a flush mounted manway.

Direct Push Boring Advancement and Soil Sampling Methods

In addition to the location of potential contamination, boring/monitoring well locations were selected with knowledge of site physical constraints (i.e., overhead and underground utilities, property boundaries, locations of removed tanks and distribution system, and structures). Borings were advanced during the site study using the following drilling methods:

Direct Push Drilling

Direct push drilling was used to collect soil samples using a continuous core. Soil samples were collected in a 5 foot x 2 inch diameter PVC tube. Lithologic logs were constructed by direct observation of the continuous soil sampling liners. Soils were described using the USCS.

Soil samples were collected from soil borings following the method below:

Soil Sample Collection

Soil samples from direct push borings were screened for VOCs using a PID. Soil samples were collected from each boring on the basis of PID measurements and visual observations. Soil samples were collected for VOC by inserting an Encore® sampler or TerraCore® Sampler into the soil core. The soil from the sampler was deposited in a laboratory provided 40-milliliter glass container and preserved with methanol. For semi-volatile analysis soils were collected into a laboratory provided 4-ounce glass jar. The samples were labeled, stored in a chilled cooler, and transported to the analytical laboratory under a chain of custody.

Groundwater Sampling Methods

The sample collection methodology used by Mountain Research was designed to comply with US Environmental Protection Agency (EPA) SW-846 protocol and the Pennsylvania Groundwater Monitoring Guidance Manual, December 1, 2001. Prior to sampling, all field sampling equipment was properly cleaned to avoid sample contamination. The static water level (SWL) of each well was measured as the first step in sampling. These measurements were used to calculate groundwater elevation at each well.

Each well was purged of at least three well volumes of fluid, or until the monitoring well went dry, using a submersible pump or dedicated disposable bailer. Samples were then collected using the dedicated disposable bailer. Groundwater was decanted from the bailer into appropriate, laboratory supplied containers. The samples were labeled and stored in an ice cooler for transport to the analytical laboratory.

APPENDIX G

DISPOSAL DOCUMENTATION – SOIL AND WATER

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number PAVSQG	2. Page 1 of 1	3. Emergency Response Phone 1-866-932-6723	4. Waste Tracking Number 181982

GENERATOR

5. Generator's Name and Mailing Address
WOODLAND FUEL AND FOOD
2829 WOODLAND BIGLER HIGHWAY ,WOODLAND, PA 16881
Generator's Phone: 410-857-9870

Generator's Site Address (if different than mailing address)
2829 Woodland Bigler Highway
WOODLAND ,PA 16881
ERIC HARRIS 410-857-9870

6. Transporter 1 Company Name
ECOFLO, INC.
U.S. EPA ID Number NCD980842132

7. Transporter 2 Company Name
S M Properties
U.S. EPA ID Number NCR000170084

8. Designated Facility Name and Site Address
ECOFLO, INC.
2750 PATTERSON STREET GREENSBORO ,NC 27407
Facility's Phone: 336 855-7925
U.S. EPA ID Number NCD980842132

9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1 NON REGULATED MATERIAL 344AAV-001	001	DM	00450	P
2				
3				
4				

13. Special Handling Instructions and Additional Information
1) 5572 /55Dm
WO# 181982

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Kenneth Woodlief for Eric Harris
Signature: Kenneth Woodlief for Eric Harris
Month 04 Day 10 Year 18

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Kenneth Woodlief
Signature: Kenneth Woodlief
Month 04 Day 10 Year 18
Transporter 2 Printed/Typed Name: James Mosquera
Signature: James Mosquera
Month 4 Day 27 Year 18

DESIGNATED FACILITY

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Marcus Moton
Signature:
Month 4 Day 30 Year 18

169-BLC-O 6 10498 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number PAVSQG	2. Page 1 of 1	3. Emergency Response Phone 1-800-932-0723	4. Waste Tracking Number 192300

5. Generator's Name and Mailing Address
WOODLAND FUEL AND FOOD
2829 WOODLAND BIGLER HIGHWAY ,WOODLAND, PA 16881
410-857-9870
Generator's Phone:

Generator's Site Address (if different than mailing address)
2829 Woodland Bigler Highway
WOODLAND ,PA 16881
ERIC HARRIS 410-857-9870

6. Transporter 1 Company Name
ECOFLO, INC.
U.S. EPA ID Number NCD980842132

7. Transporter 2 Company Name
S M Properties
U.S. EPA ID Number NCR000170084

8. Designated Facility Name and Site Address
ECOFLO, INC.
2750 PATTERSON STREET GREENSBORO ,NC 27407
336 855-7925
Facility's Phone:
U.S. EPA ID Number NCD980842132

9. Waste Shipping Name and Description	10 Containers No.	10 Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1. NON REGULATED MATERIAL 344AAV-001	XX5	DM	3,000	P
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information
(6X550U)
WO# 192300

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Daniel Boyle
Signature: Daniel Boyle
Month 04 Day 16 Year 18

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Daniel Boyle
Signature: Daniel Boyle
Month 04 Day 16 Year 18

Transporter 2 Printed/Typed Name: James Mosquera
Signature: James Mosquera
Month 4 Day 27 Year 18

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Marcus Moton
Signature:
Month 4 Day 30 Year 18

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

DESIGNATED FACILITY TO GENERATOR

169-BLC-O 6 10498 (Rev. 9/09)

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number: PAVSQG
2. Page 1 of 1
3. Emergency Response Phone: 866-932-6723
4. Waste Tracking Number: 081618-1

5. Generator's Name and Mailing Address: Woodland Fuel and Food
2829 Woodland Bayles Highway
Woodland PA 16881
Generator's Phone: 410-857-9670
Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: Manage Direct Systems Environmental, LLC
U.S. EPA ID Number: PAR 000 543 637

7. Transporter 2 Company Name: ECOFLO, Inc.
U.S. EPA ID Number: NCD980842132

8. Designated Facility Name and Site Address: Ecoflo, Inc
2250 Patterson St.
Greensboro NC 27407
Facility's Phone:
U.S. EPA ID Number: NCD980842132

9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol	
1. Non-Regulated Material - Soil Cuttings	xx8	DM	3200	P	
2.					
3.					
4.					

13. Special Handling Instructions and Additional Information

Order# ~~193110~~ 194609

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Erika Johnson
Signature: Erika Johnson
Month 8 Day 16 Year 18

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Theodore D. Busch Jr.
Signature:
Month 08 Day 16 Year 18

Transporter 2 Printed/Typed Name: GARY NEWMAN
Signature:
Month 8 Day 17 Year 18

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Gregg Berger
Signature:
Month 8 Day 28 Year 18

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

DESIGNATED FACILITY TO GENERATOR

Water Depot, Inc.

1301 Avondale Rd., New Windsor, MD 21776 • (P) 410-857-9670 • (F) 410-857-2814 • www.oilwaterdisposal.com

NON-HAZARDOUS WASTE MANIFEST/BILL OF LADING TRACKING NUMBER: SC012615F4

Generator Name: Mt Research			Site Name (if different): Gio's		
Address:			Address: 2029 Woodland Butler Hwy		
City:	State:	Zip:	City: Woodland	State: PA	Zip: 18851
Phone:	Contact:		Phone	Contact:	

Purchase Order No: 24663

Transporter 1 Company Name: ☒ Water Depot, Inc. ☐ Subsurface Technologies, Inc.

Transporter 2 Company Name:

Designated Facility Name: **Water Depot, Inc.**			Other:
Address: **1301 Avondale Rd.**			
City: **New Windsor**	State: **MD**	Zip: **21776**	
Phone: **410-857-9670**			

Shipping Name & Description

Non-hazardous/Non-regulated Material:	Gallons:	Non-hazardous/Non-regulated Material:	Gallons:
Petroleum-Contaminated Water	264	Combustible Liquids, N.O.S., (fuel oil & water for recycling), 3, NA 1993, PGIII	
Petroleum-Contaminated Sludge		Combustible Liquids, N.O.S., (gasoline & water for recycling), 3, NA 1993, PGIII	
Oil for Recycling			
Oil & Water for Recycling		Glycol & Water for Recycling	

	Containers		Quantity	Volume/Units
Other	No	Type		
Other:	No	Type		

Special handling instructions or additional information

Generator/Shipper Certification Statement

As the generator or shipper, I hereby certify that this material is properly classified and does not contain Polychlorinated Biphenyls (PCBs). To the best of my knowledge it has not been mixed, combined or blended in any amount with any other material defined as hazardous waste under applicable law. Generator/Shipper agrees to indemnify and hold Water Depot, Inc. or Subsurface Technologies, Inc. harmless for any damages arising from or in any way relating to a breach of this Certification Statement.

X Generator Authorized Agent Printed Name Michael Hardy	X Signature	Date 1/26/18
X Transporter 1 Printed Name Stephen Coffey	X Signature	Date 1/26/18
X Transporter 2 Printed Name	X Signature	Date / /

Discrepancy Indication Space

Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in discrepancy indication space.

Printed Name Edward	Acceptance Signature	Date 1/26/18

White-Original Green-Transporter 1 Yellow-Transporter 2 Pink-Facility Gold-Customer

Water Depot, Inc.

1301 Avondale Rd., New Windsor, MD 21776 • (P) 410-857-9670 • (F) 410-857-2814 • www.oilwaterdisposal.com

NON-HAZARDOUS WASTE MANIFEST/BILL OF LADING TRACKING NUMBER: 5C0138 18A

Generator Name: JM Research			Site Name (if different): Gie's		
Address:			Address: 2359 Woodland Park Hwy		
City:	State:	Zip:	City: Woodland	State: Pa	Zip: 16281
Phone:	Contact:		Phone	Contact:	

Purchase Order No: 24663

Transporter 1 Company Name: [X] Water Depot, Inc. [ ] Subsurface Technologies, Inc.

Transporter 2 Company Name:

Designated Facility Name: **Water Depot, Inc.**			Other:
Address: **1301 Avondale Rd.**			
City: **New Windsor**	State: **MD**	Zip: **21776**	
Phone: **410-857-9670**			

Shipping Name & Description

Non-hazardous/Non-regulated Material:	Gallons:	Non-hazardous/Non-regulated Material:	Gallons:
Petroleum-Contaminated Water	165	Combustible Liquids, N.O.S., (fuel oil & water for recycling), 3, NA 1993, PGIII	
Petroleum-Contaminated Sludge		Combustible Liquids, N.O.S., (gasoline & water for recycling), 3, NA 1993, PGIII	
Oil for Recycling			
Oil & Water for Recycling		Glycol & Water for Recycling	

	Containers		Quantity	Volume/Units
Other:	No	Type		
Other:	No	Type		

Special handling instructions or additional information

Generator/Shipper Certification Statement

As the generator or shipper, I hereby certify that this material is properly classified and does not contain Polychlorinated Biphenyls (PCBs). To the best of my knowledge it has not been mixed, combined or blended in any amount with any other material defined as hazardous waste under applicable law. Generator/Shipper agrees to indemnify and hold Water Depot, Inc. or Subsurface Technologies, Inc. harmless for any damages arising from or in any way relating to a breach of this Certification Statement.

X Generator Authorized Agent Printed Name: Jason Hazley	X Signature: Jason Hazley	Date: 1/30/18
X Transporter 1 Printed Name: Stephen Crotty	X Signature: [illegible]	Date: 1/30/18
X Transporter 2 Printed Name	X Signature	Date: / /

Discrepancy Indication Space

Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in discrepancy indication space.

Printed Name: Erin [illegible]	Acceptance Signature: [illegible]	Date: 1/30/18

White-Original Green-Transporter 1 Yellow-Transporter 2 Pink-Facility Gold-Customer

Water Depot, Inc.

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NON-HAZARDOUS WASTE MANIFEST/BILL OF LADING TRACKING NUMBER: SC020818A

Generator Name: MT Research			Site Name (if different): Gic's		
Address:			Address: 2829 Woodland Rider Hwy		
City:	State:	Zip:	City: Woodland	State: PA	Zip: 16821
Phone:	Contact:		Phone	Contact:	

Purchase Order No: 246663

Transporter 1 Company Name: ☒ Water Depot, Inc. ☐ Subsurface Technologies, Inc.

Transporter 2 Company Name:			
Designated Facility Name: Water Depot, Inc.			Other:
Address: 1301 Avondale Rd.			
City: New Windsor	State: MD	Zip: 21776	
Phone: 410-857-9670			

Shipping Name & Description

Non-hazardous/Non-regulated Material:	Gallons:	Non-hazardous/Non-regulated Material:	Gallons:
Petroleum-Contaminated Water	327	Combustible Liquids, N.O.S., (fuel oil & water for recycling), 3, NA 1993, PGIII	
Petroleum-Contaminated Sludge		Combustible Liquids, N.O.S., (gasoline & water for recycling), 3, NA 1993, PGIII	
Oil for Recycling			
Oil & Water for Recycling		Glycol & Water for Recycling	

Other:	Containers		Quantity	Volume/Units
	No	Type		
Other:	Containers		Quantity	Volume/Units
	No	Type		

Special handling instructions or additional information

Generator/Shipper Certification Statement

As the generator or shipper, I hereby certify that this material is properly classified and does not contain Polychlorinated Biphenyls (PCBs). To the best of my knowledge it has not been mixed, combined or blended in any amount with any other material defined as hazardous waste under applicable law. Generator/Shipper agrees to indemnify and hold Water Depot, Inc. or Subsurface Technologies, Inc. harmless for any damages arising from or in any way relating to a breach of this Certification Statement.

X Generator Authorized Agent Printed Name: Lucas Holley	X Signature: [signature]	Date: 2/8/18
X Transporter 1 Printed Name: Stephen Coffy	X Signature: [signature]	Date: 2/8/18
X Transporter 2 Printed Name	X Signature	Date: / /

Discrepancy Indication Space

Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in discrepancy indication space.

Printed Name: Eric Arnt	Acceptance Signature: [signature]	Date: 2/8/18

White-Original Green-Transporter 1 Yellow-Transporter 2 Pink-Facility Gold-Customer

Water Depot, Inc.

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NON-HAZARDOUS WASTE MANIFEST/BILL OF LADING TRACKING NUMBER: 5C 0215 187

Generator Name: MH Research			Site Name (if different): Gio's Woodland		
Address:			Address: 2229 Woodland Acton Hwy		
City:	State:	Zip:	City: Fredericksburg Twp	State: Pa	Zip: 16561
Phone:	Contact:		Phone	Contact:	

Purchase Order No: 241663

Transporter 1 Company Name: [X] Water Depot, Inc. [ ] Subsurface Technologies, Inc.

Transporter 2 Company Name:

Designated Facility Name: **Water Depot, Inc.**			Other:
Address: **1301 Avondale Rd.**			
City: **New Windsor**	State: **MD**	Zip: **21776**	
Phone: **410-857-9670**			

Shipping Name & Description

Non-hazardous/Non-regulated Material:	Gallons:	Non-hazardous/Non-regulated Material:	Gallons:
Petroleum-Contaminated Water	512	Combustible Liquids, N.O.S., (fuel oil & water for recycling), 3, NA 1993, PGIII	
Petroleum-Contaminated Sludge		Combustible Liquids, N.O.S., (gasoline & water for recycling), 3, NA 1993, PGIII	
Oil for Recycling			
Oil & Water for Recycling		Glycol & Water for Recycling	

	Containers		Quantity	Volume/Units
Other	No	Type		
Other:	No	Type		

Special handling instructions or additional information

Generator/Shipper Certification Statement

As the generator or shipper, I hereby certify that this material is properly classified and does not contain Polychlorinated Biphenyls (PCBs). To the best of my knowledge it has not been mixed, combined or blended in any amount with any other material defined as hazardous waste under applicable law. Generator/Shipper agrees to indemnify and hold Water Depot, Inc. or Subsurface Technologies, Inc. harmless for any damages arising from or in any way relating to a breach of this Certification Statement.

X Generator Authorized Agent Printed Name: Jason Flory	X Signature: [signature]	Date: 2/13/18
X Transporter 1 Printed Name: Stephen Crotty	X Signature: [signature]	Date: 2/13/18
X Transporter 2 Printed Name	X Signature	Date: / /

Discrepancy Indication Space

Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in discrepancy indication space.

Printed Name: Eric Arno	Acceptance Signature: [signature]	Date: 2/13/18

White-Original Green-Transporter 1 Yellow-Transporter 2 Pink-Facility Gold-Customer

Water Depot, Inc.

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NON-HAZARDOUS WASTE MANIFEST/BILL OF LADING TRACKING NUMBER: SC 058184

Generator Name: Mt Research			Site Name (if different): Gio's		
Address:			Address: 2829 Woodland Acres Hwy		
City:	State:	Zip:	City: Woodland	State: Pa	Zip: 16881
Phone:	Contact:		Phone	Contact:	

Purchase Order No: 24663

Transporter 1 Company Name: [X] Water Depot, Inc. [ ] Subsurface Technologies, Inc.

Transporter 2 Company Name:			
Designated Facility Name: **Water Depot, Inc.**			Other:
Address: **1301 Avondale Rd.**			
City: **New Windsor**	State: **MD**	Zip: **21776**	
Phone: **410-857-9670**			

Shipping Name & Description

Non-hazardous/Non-regulated Material:	Gallons:	Non-hazardous/Non-regulated Material:	Gallons:
Petroleum-Contaminated Water	352	Combustible Liquids, N.O.S., (fuel oil & water for recycling), 3, NA 1993, PGIII	
Petroleum-Contaminated Sludge		Combustible Liquids, N.O.S., (gasoline & water for recycling), 3, NA 1993, PGIII	
Oil for Recycling		Glycol & Water for Recycling	
Oil & Water for Recycling			

	Containers		Quantity	Volume/Units
Other	No	Type		
Other:	No	Type		

Special handling instructions or additional information

Generator/Shipper Certification Statement

As the generator or shipper, I hereby certify that this material is properly classified and does not contain Polychlorinated Biphenyls (PCBs). To the best of my knowledge it has not been mixed, combined or blended in any amount with any other material defined as hazardous waste under applicable law. Generator/Shipper agrees to indemnify and hold Water Depot, Inc. or Subsurface Technologies, Inc. harmless for any damages arising from or in any way relating to a breach of this Certification Statement.

X Generator Authorized Agent Printed Name: Brian Henry	X Signature	Date 2/20/18
X Transporter 1 Printed Name: Stephen Cathy	X Signature	Date 2/20/18
X Transporter 2 Printed Name	X Signature	Date

Discrepancy Indication Space

Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in discrepancy indication space.

Printed Name: Eric	Acceptance Signature	Date 2/20/18

White-Original Green-Transporter 1 Yellow-Transporter 2 Pink-Facility Gold-Customer

Water Depot, Inc.

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NON-HAZARDOUS WASTE MANIFEST/BILL OF LADING TRACKING NUMBER: SG 02 27/8

Generator Name: MT Research			Site Name (if different): Gio's		
Address:			Address: 8229 Woodland Rd Ext Hwy		
City:	State:	Zip:	City: Woodland	State: Md	Zip: 16238
Phone:	Contact:		Phone	Contact:	

Purchase Order No: 246663

Transporter 1 Company Name: [X] Water Depot, Inc. [ ] Subsurface Technologies, Inc.

Transporter 2 Company Name:			
Designated Facility Name: **Water Depot, Inc.**			Other:
Address: **1301 Avondale Rd.**			
City: **New Windsor**	State: **MD**	Zip: **21776**	
Phone: **410-857-9670**			

Shipping Name & Description

Non-hazardous/Non-regulated Material:	Gallons:	Non-hazardous/Non-regulated Material:	Gallons:
Petroleum-Contaminated Water	562	Combustible Liquids, N.O.S., (fuel oil & water for recycling), 3, NA 1993, PGIII	
Petroleum-Contaminated Sludge		Combustible Liquids, N.O.S., (gasoline & water for recycling), 3, NA 1993, PGIII	
Oil for Recycling			
Oil & Water for Recycling		Glycol & Water for Recycling	

	Containers		Quantity	Volume/Units
Other:	No	Type		
Other:	No	Type		

Special handling instructions or additional information

Generator/Shipper Certification Statement

As the generator or shipper, I hereby certify that this material is properly classified and does not contain Polychlorinated Biphenyls (PCBs). To the best of my knowledge it has not been mixed, combined or blended in any amount with any other material defined as hazardous waste under applicable law. Generator/Shipper agrees to indemnify and hold Water Depot, Inc. or Subsurface Technologies, Inc. harmless for any damages arising from or in any way relating to a breach of this Certification Statement.

X Generator Authorized Agent Printed Name: Gio's Woodland Food + Fuel	X Signature: [signature]	Date: 2/27/18
X Transporter 1 Printed Name: Stephen Crotty	X Signature: [signature]	Date: 2/27/18
X Transporter 2 Printed Name	X Signature	Date: / /

Discrepancy Indication Space

Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in discrepancy indication space.

Printed Name: [signature]	Acceptance Signature: [signature]	Date: 2/27/18

White-Original Green-Transporter 1 Yellow-Transporter 2 Pink-Facility Gold-Customer

Water Depot, Inc.

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NON-HAZARDOUS WASTE MANIFEST/BILL OF LADING TRACKING NUMBER: SC 040318A

Generator Name: Mt Research			Site Name (if different): Gio's		
Address:			Address: 2829 Woodland Giles Hwy		
City:	State:	Zip:	City: Radford Twp	State: Pa	Zip: 16833
Phone:	Contact:		Phone	Contact:	

Purchase Order No: 24663

Transporter 1 Company Name: ☒ Water Depot, Inc. ☐ Subsurface Technologies, Inc.

Transporter 2 Company Name:

Designated Facility Name: **Water Depot, Inc.**			Other:
Address: **1301 Avondale Rd.**			
City: **New Windsor**	State: **MD**	Zip: **21776**	
Phone: **410-857-9670**			

Shipping Name & Description

Non-hazardous/Non-regulated Material:	Gallons:	Non-hazardous/Non-regulated Material:	Gallons:
Petroleum-Contaminated Water	146	Combustible Liquids, N.O.S., (fuel oil & water for recycling), 3, NA 1993, PGIII	
Petroleum-Contaminated Sludge		Combustible Liquids, N.O.S., (gasoline & water for recycling), 3, NA 1993, PGIII	
Oil for Recycling			
Oil & Water for Recycling		Glycol & Water for Recycling	

	Containers		Quantity	Volume/Units
Other:	No	Type		
Other:	No	Type		

Special handling instructions or additional information

Generator/Shipper Certification Statement

As the generator or shipper, I hereby certify that this material is properly classified and does not contain Polychlorinated Biphenyls (PCBs). To the best of my knowledge it has not been mixed, combined or blended in any amount with any other material defined as hazardous waste under applicable law. Generator/Shipper agrees to indemnify and hold Water Depot, Inc. or Subsurface Technologies, Inc. harmless for any damages arising from or in any way relating to a breach of this Certification Statement.

X Generator Authorized Agent Printed Name	X Signature	Date 4/3/18
X Transporter 1 Printed Name Stephen Coutty	X Signature	Date 4/3/18
X Transporter 2 Printed Name	X Signature	Date / /

Discrepancy Indication Space

Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in discrepancy indication space.

Printed Name Erin	Acceptance Signature	Date 4/3/18

White-Original Green-Transporter 1 Yellow-Transporter 2 Pink-Facility Gold-Customer

Water Depot, Inc.

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NON-HAZARDOUS WASTE MANIFEST/BILL OF LADING TRACKING NUMBER: SC041718A

Generator Name: Mt Research			Site Name (if different): Gio's		
Address:			Address: 2829 Woodland Bigler Hwy		
City:	State:	Zip:	City: Bradford Twp	State: Pa	Zip: 16881
Phone:	Contact:		Phone	Contact:	

Purchase Order No: 241663

Transporter 1 Company Name: [X] Water Depot, Inc. [ ] Subsurface Technologies, Inc.

Transporter 2 Company Name:

Designated Facility Name: **Water Depot, Inc.**			Other:
Address: **1301 Avondale Rd.**			
City: **New Windsor**	State: **MD**	Zip: **21776**	
Phone: **410-857-9670**			

Shipping Name & Description

Non-hazardous/Non-regulated Material:	Gallons:	Non-hazardous/Non-regulated Material:	Gallons:
Petroleum-Contaminated Water	302	Combustible Liquids, N.O.S., (fuel oil & water for recycling), 3, NA 1993, PGIII	
Petroleum-Contaminated Sludge		Combustible Liquids, N.O.S., (gasoline & water for recycling), 3, NA 1993, PGIII	
Oil for Recycling			
Oil & Water for Recycling		Glycol & Water for Recycling	

	Containers		Quantity	Volume/Units
Other:	No	Type		
Other:	No	Type		

Special handling instructions or additional information

Generator/Shipper Certification Statement

As the generator or shipper, I hereby certify that this material is properly classified and does not contain Polychlorinated Biphenyls (PCBs). To the best of my knowledge it has not been mixed, combined or blended in any amount with any other material defined as hazardous waste under applicable law. Generator/Shipper agrees to indemnify and hold Water Depot, Inc. or Subsurface Technologies, Inc. harmless for any damages arising from or in any way relating to a breach of this Certification Statement.

X Generator Authorized Agent Printed Name: Justin Bailey	X Signature	Date 4/17/18
X Transporter 1 Printed Name: Stephen Crotty	X Signature: Stephen Crotty	Date 4/17/18
X Transporter 2 Printed Name	X Signature	Date / /

Discrepancy Indication Space

Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in discrepancy indication space.

Printed Name: Eric	Acceptance Signature	Date 4/17/18

White-Original Green-Transporter 1 Yellow-Transporter 2 Pink-Facility Gold-Customer

Water Depot, Inc.

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NON-HAZARDOUS WASTE MANIFEST/BILL OF LADING TRACKING NUMBER: SK050318A

Generator Name: Mt Research			Site Name (if different): Gio's		
Address:			Address: 2829 Wood Land Baker Hwy		
City:	State:	Zip:	City: Bradford Twp	State: Pa	Zip: 16701
Phone:	Contact:		Phone	Contact:	

Purchase Order No: 24663

Transporter 1 Company Name: [X] Water Depot, Inc. [ ] Subsurface Technologies, Inc.

Transporter 2 Company Name:

Designated Facility Name: **Water Depot, Inc.**			Other:
Address: **1301 Avondale Rd.**			
City: **New Windsor**	State: **MD**	Zip: **21776**	
Phone: **410-857-9670**			

Shipping Name & Description

Non-hazardous/Non-regulated Material:	Gallons:	Non-hazardous/Non-regulated Material:	Gallons:
Petroleum-Contaminated Water	105	Combustible Liquids, N.O.S., (fuel oil & water for recycling), 3, NA 1993, PGIII	
Petroleum-Contaminated Sludge		Combustible Liquids, N.O.S., (gasoline & water for recycling), 3, NA 1993, PGIII	
Oil for Recycling			
Oil & Water for Recycling		Glycol & Water for Recycling	

	Containers		Quantity	Volume/Units
Other:	No	Type		
Other:	No	Type		

Special handling instructions or additional information

Generator/Shipper Certification Statement

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X Generator Authorized Agent Printed Name: Michael Carrier	X Signature: [signature]	Date: 5/3/18
X Transporter 1 Printed Name: Stephen Crotty	X Signature: [signature]	Date: 5/3/18
X Transporter 2 Printed Name:	X Signature:	Date: / /

Discrepancy Indication Space

Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in discrepancy indication space.

Printed Name: [signature]	Acceptance Signature: [signature]	Date: 5/3/18

White-Original Green-Transporter 1 Yellow-Transporter 2 Pink-Facility Gold-Customer

Water Depot, Inc.

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NON-HAZARDOUS WASTE MANIFEST/BILL OF LADING TRACKING NUMBER: SC051518A

Generator Name: IMT Research			Site Name (if different): Gio's		
Address:			Address: 2829 Woodlawn Bridge Hwy		
City:	State:	Zip:	City: Bradford Twp	State: PA	Zip: 16701
Phone:	Contact:		Phone	Contact:	

Purchase Order No: 24663

Transporter 1 Company Name: ☒ Water Depot, Inc. ☐ Subsurface Technologies, Inc.

Transporter 2 Company Name:			
Designated Facility Name: **Water Depot, Inc.**			Other:
Address: **1301 Avondale Rd.**			
City: **New Windsor**	State: **MD**	Zip: **21776**	
Phone: **410-857-9670**			

Shipping Name & Description

Non-hazardous/Non-regulated Material:	Gallons:	Non-hazardous/Non-regulated Material:	Gallons:
Petroleum-Contaminated Water	315	Combustible Liquids, N.O.S., (fuel oil & water for recycling), 3, NA 1993, PGIII	
Petroleum-Contaminated Sludge		Combustible Liquids, N.O.S., (gasoline & water for recycling), 3, NA 1993, PGIII	
Oil for Recycling			
Oil & Water for Recycling		Glycol & Water for Recycling	

	Containers		Quantity	Volume/Units
	No	Type		
Other:				
Other:				

Special handling instructions or additional information

Generator/Shipper Certification Statement

As the generator or shipper, I hereby certify that this material is properly classified and does not contain Polychlorinated Biphenyls (PCBs). To the best of my knowledge it has not been mixed, combined or blended in any amount with any other material defined as hazardous waste under applicable law. Generator/Shipper agrees to indemnify and hold Water Depot, Inc. or Subsurface Technologies, Inc. harmless for any damages arising from or in any way relating to a breach of this Certification Statement.

X Generator Authorized Agent Printed Name: Allison Berry	X Signature: [signature]	Date: 5/15/18
X Transporter 1 Printed Name: Stephen Crotty	X Signature: [signature]	Date: 5/15/18
X Transporter 2 Printed Name:	X Signature:	Date: / /

Discrepancy Indication Space

Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in discrepancy indication space.

Printed Name: Ed	Acceptance Signature: [signature]	Date: 5/15/18

White-Original Green-Transporter 1 Yellow-Transporter 2 Pink-Facility Gold-Customer

Water Depot, Inc.

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NON-HAZARDOUS WASTE MANIFEST/BILL OF LADING TRACKING NUMBER: SC062818A

Generator Name: Mt Research			Site Name (if different): Gio's Woodland		
Address:			Address: 2829 Woodland Butler Hwy		
City:	State:	Zip:	City: Bradford Twp	State: Pa	Zip: 16881
Phone:	Contact:		Phone	Contact:	

Purchase Order No: 24643

Transporter 1 Company Name: [X] Water Depot, Inc. [ ] Subsurface Technologies, Inc.

Transporter 2 Company Name:

Designated Facility Name: **Water Depot, Inc.**			Other:
Address: **1301 Avondale Rd.**			
City: **New Windsor**	State: **MD**	Zip: **21776**	
Phone: **410-857-9670**			

Shipping Name & Description

Non-hazardous/Non-regulated Material:	Gallons:	Non-hazardous/Non-regulated Material:	Gallons:
Petroleum-Contaminated Water	165	Combustible Liquids, N O S , (fuel oil & water for recycling), 3, NA 1993, PGIII	
Petroleum-Contaminated Sludge		Combustible Liquids, N O S , (gasoline & water for recycling), 3, NA 1993, PGIII	
Oil for Recycling		Glycol & Water for Recycling	
Oil & Water for Recycling			

	Containers		Quantity	Volume/Units
Other:	No	Type		
Other:	No	Type		

Special handling instructions or additional information

Generator/Shipper Certification Statement

As the generator or shipper, I hereby certify that this material is properly classified and does not contain Polychlorinated Biphenyls (PCBs). To the best of my knowledge it has not been mixed, combined or blended in any amount with any other material defined as hazardous waste under applicable law. Generator/Shipper agrees to indemnify and hold Water Depot, Inc. or Subsurface Technologies, Inc. harmless for any damages arising from or in any way relating to a breach of this Certification Statement.

X Generator Authorized Agent Printed Name: Jason Harey	X Signature: [signature]	Date: 6/28/18
X Transporter 1 Printed Name: Stephen Crotty	X Signature: [signature]	Date: 6/28/18
X Transporter 2 Printed Name	X Signature	Date: / /

Discrepancy Indication Space

Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in discrepancy indication space.

Printed Name: [signature]	Acceptance Signature: [signature]	Date: 6/28/18

White-Original Green-Transporter 1 Yellow-Transporter 2 Pink-Facility Gold-Customer

Water Depot, Inc.

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NON-HAZARDOUS WASTE MANIFEST/BILL OF LADING TRACKING NUMBER: CS082718A

Generator Name: Mountain Research / GIO's			Site Name (if different):		
Address: 2879 Woodland Bridge Hwy			Address:		
City: Woodland	State: PA	Zip:	City	State:	Zip:
Phone:	Contact:		Phone	Contact:	

Purchase Order No: 24663

Transporter 1 Company Name: ☒ Water Depot, Inc. ☐ Subsurface Technologies, Inc.

Transporter 2 Company Name:

Designated Facility Name: **Water Depot, Inc.**			Other
Address: **1301 Avondale Rd.**			
City: **New Windsor**	State: **MD**	Zip: **21776**	
Phone: **410-857-9670**			

Shipping Name & Description

Non-hazardous/Non-regulated Material:	Gallons:	Non-hazardous/Non-regulated Material:	Gallons:
Petroleum-Contaminated Water	165	Combustible Liquids, N.O.S., (fuel oil & water for recycling), 3, NA 1993, PGIII	
Petroleum-Contaminated Sludge		Combustible Liquids, N.O.S., (gasoline & water for recycling), 3, NA 1993, PGIII	
Oil for Recycling			
Oil & Water for Recycling		Glycol & Water for Recycling	

Other:	Containers		Quantity	Volume/Units
	No	Type		
Other	Containers		Quantity	Volume/Units
	No	Type		

Special handling instructions or additional information

Generator/Shipper Certification Statement

As the generator or shipper, I hereby certify that this material is properly classified and does not contain Polychlorinated Biphenyls (PCBs). To the best of my knowledge it has not been mixed, combined or blended in any amount with any other material defined as hazardous waste under applicable law. Generator/Shipper agrees to indemnify and hold Water Depot, Inc. or Subsurface Technologies, Inc. harmless for any damages arising from or in any way relating to a breach of this Certification Statement.

X Generator Authorized Agent Printed Name: Jacob CLARK	X Signature	Date 8/27/18
X Transporter 1 Printed Name: Chas Shuett	X Signature	Date 8/27/18
X Transporter 2 Printed Name	X Signature	Date

Discrepancy Indication Space

Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in discrepancy indication space.

Printed Name: Earl Kass	Acceptance Signature	Date 8/27/18

White-Original Green-Transporter 1 Yellow-Transporter 2 Pink-Facility Gold-Customer

APPENDIX H

GEOLOGIC LOGS

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: SB-1/MW-1

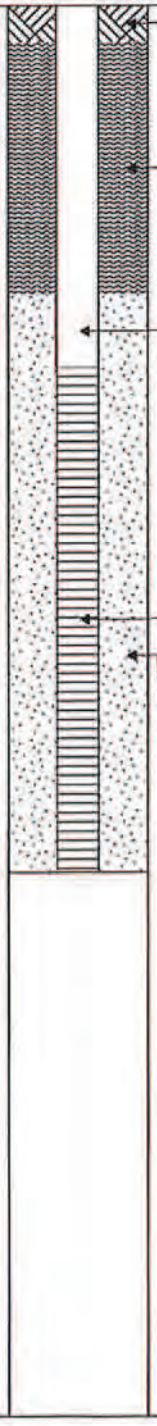
PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: AUGER REFUSAL-3.5'/TERMINATED-24' .
SATURATED ZONE: 14' BGS.
TOC ELEVATION:

WEATHER: 20'S/SUNNY
LOGGED BY: JACOB CLARA
DRILLING METHOD: DIRECT PUSH/HSA/AIR ROTARY
OPERATOR: DREW SNYDER
BOREHOLE COMPLETION: SOIL BORING/MW
DATE: 3/9 & 13/2018
BOREHOLE DIAMETER: 2.25"/6.25"/3.75"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0			0 - 0.5' - CONCRETE.
		0	0.5 - 3.5' - CLAY (CL): GREYISH-ORANGE; HARD; COMPACTED; LOW PLASTICITY; LOW MOISTURE; NO ODOR; AUGER REFUSAL AT 3.5' BGS.
		0	
		0	
		0	3.5 - 4' - CLAY (CL): GREYISH-BLUE - ORANGE; SOFTER; LOW PLASTICITY; LOW MOISTURE.
5	SB-1/MW-1 (5')	0	4 - 5' - CLAY (CL): BLUE - ORANGE - GREY; HARD; LOW PLASTICITY; LOW MOISTURE; TRANSITIONS TO SANDY SHALE BEDROCK.
			5 - 6' - SHALE: SANDY SHALE FRAGMENTS; HARD MATERIAL; LOTS OF DUST.
			6 - 6.5' - SHALE: SOFTER BROWN MATERIAL.
10			6.5 - 7' -SHALE: SANDY SHALE FRAGMENTS; HARD MATERIAL; LOTS OF DUST.
			7 - 7.5' - FRACTURE/VOID - LITTLE HAMMERING/NO DUST.
			7.5 - 9' - SHALE: SANDY SHALE FRAGMENTS; HARD MATERIAL; LOTS OF DUST.
15			9 - 9.2' - VOID/FRACTURE - NO HAMMERING; SOFT; BROWN CUTTINGS; NO DUST.
			9.2 - 10' - HARD MATERIAL.
			10 - 10.2' - VOID/FRACTURE - NO HAMMERING; SOFT; BROWN CUTTINGS; NO DUST.
			10.2 - 10.4' - SHALE: HARD SANDY SHALE.
			10.4 - 10.6' - VOID/FRACTURE.
20			10.6 - 14' - SHALE: SANDY SHALE CUTTINGS; HARD MATERIAL; SATURATED AT 14' BGS.
			14 - 15' - SHALE: SHALE CUTTINGS; HARD MATERIAL; DUSTY.
			15 - 17' - SHALE: SHALE CUTTINGS - HARDER MATERIAL; LARGE AMOUNT OF DUST.
25			17 - 17.2' - SHALE: SHALE CUTTINGS - HARDER MATERIAL; LARGE AMOUNT OF DUST.
			17.2 - 19' - SHALE: SHALE CUTTINGS - HARDER MATERIAL; LOTS OF DUST.
			19 - 21' - SHALE: SHALE CUTTINGS; LOW DUST.
			21 - 24.5' - SHALE: SHALE CUTTINGS; MODERATE DUST.
30			24.5' - TERMINATED AT 24.5' BGS.
35			

GRAPHIC LOG

WELL CONSTRUCTION DETAILS



Jacob B Clara 5-2-18

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: SB-2/MW-2

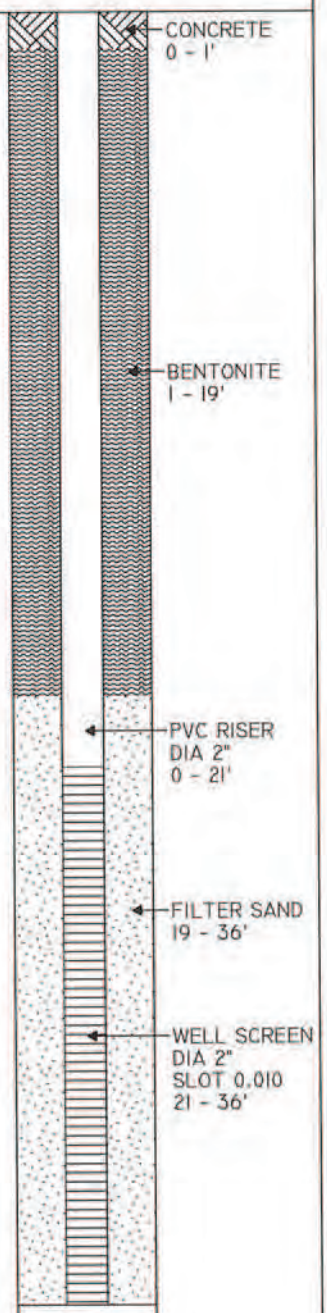
PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: REFUSAL-13'/TERMINATED-36' BGS.
SATURATED ZONE: 28 - 36' BGS.
TOC ELEVATION:

WEATHER: 20'S/WINDY
LOGGED BY: ADAM KOVAC
DRILLING METHOD: DIRECT PUSH/AIR ROTARY
OPERATOR: DREW SNYDER
BOREHOLE COMPLETION: SOIL BORING/MW
DATE: 3/6/2018
BOREHOLE DIAMETER: 6.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0			0 - 1' - ASPHALT.
			1 - 13' - SILTY CLAY (CL-ML): BROWN/ORANGE/GREY; MOTTLED; LOW PLASTICITY; MIXED WITH SHALE FRAGMENTS UP TO COBBLES; SOIL BORING AND AUGER REFUSAL AT 13' BGS.
5			
10			
			13 - 17' - SHALE: BROWN; WEATHERED; VERY SOFT; DRY.
15			
			17 - 22' - SHALE: BROWN COMPETENT SHALE BEDROCK.
20			
			22 - 22.75' - BITUMINOUS COAL.
			22.75 - 25' - SANDSTONE: TAN; RELATIVELY SOFT; EXTREMELY DUSTY.
25			25 - 27' - SHALE: BROWN AND TAN.
			27 - 28' - SOFT ZONE - LOST DUST; MADE WATER.
			28 - 36' - BROWN AND TAN INTERBEDDED SHALE AND SILTSTONE; BEDS ABOUT 6" APART.
30			
35			

GRAPHIC LOG

WELL CONSTRUCTION DETAILS



MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: SB-2/MW-2

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: REFUSAL-13'/TERMINATED-36' BGS.
SATURATED ZONE: 28 - 36' BGS.
TOC ELEVATION:

WEATHER: 20'S/WINDY
LOGGED BY: ADAM KOVAC
DRILLING METHOD: DIRECT PUSH/AIR ROTARY
OPERATOR: DREW SNYDER
BOREHOLE COMPLETION: SOIL BORING/MW
DATE: 3/6/2018
BOREHOLE DIAMETER: 6.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG	WELL CONSTRUCTION DETAILS
			36' - TERMINATED AT 36' BGS.		
40					
45					
50					
55					
60					
65					
70					

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

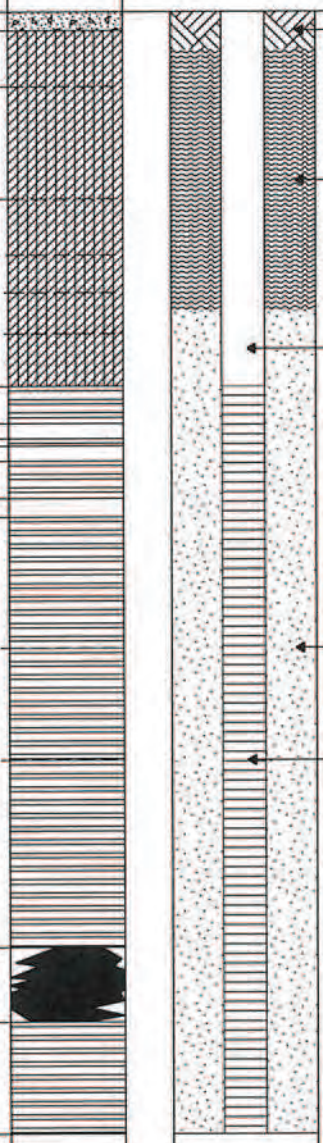
WELL NO.: SB-3/MW-3

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: AUGER REFUSAL-7'/TERMINATED-30'.
SATURATED ZONE: N/A
TOC ELEVATION:

WEATHER: 20'S/CLOUDY/SUNNY
LOGGED BY: JACOB CLARA
DRILLING METHOD: HOLLOW STEM AUGER/AIR ROTARY
OPERATOR: JIM SPADE
BOREHOLE COMPLETION: SOIL BORING/MW
DATE: 3/14/2018
BOREHOLE DIAMETER: 2.25"/6.25"/3.75"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0			0 - 0.5' - CONCRETE.
		0	0.5 - 2' - SILTY CLAY (CL-ML): BROWN; MIXED WITH FILL; NO ODOR.
		0	2 - 5' - SILTY CLAY (CL-ML): BROWN; MIXED WITH SANDSTONE AND SHALE FRAGMENTS; NO ODOR.
		0	
		0	
5		0.3	5 - 6.5' - SILTY CLAY (CL-ML): GREY- BEIEGE; MIXED WITH SANDSTONE AND SHALE FRAGMENTS; NO ODOR.
		3.4	
		3.7	6.5 - 7.5' - SILTY CLAY (CL-ML): TRANSITIONS TO RED - ORANGE SILTY CLAY; AUGER REFUSAL AT 7' BGS; NO ODOR.
	SB-3/MW-3 (9')		
10			7.5 - 8.5 - SILTY CLAY (CL-ML): TRANSITIONS TO BEIGE AND GREY IN COLOR; MIXED WITH SHALE FRAGMENTS; NO ODOR. 8.5 - 10' - SILTY CLAY (CL-ML): REDDISH-BEIGE AND ORANGE; MOIST; DIRECT PUSH REFUSAL AT 10' BGS; NO ODOR.
15			10 - 11' - SHALE: YELLOW SANDY SHALE; FAIRLY HARD; DUSTY; NO ODOR. 11 - 11.4' - FRACTURE/VOID - NO HAMMERING; BROWN CUTTINGS. 11.4 - 11.6' - SHALE: YELLOW;SANDY; LOTS OF DUST. 11.6 - 12' - FRACTURE/VOID - BROWN CUTTINGS.
20			12 - 13' - SHALE: YELLOW; SANDY. 13 - 13.5' - FRACTURE/VOID - BROWN CUTTINGS. 13.5 - 17' - SHALE: BROWN - YELLOW; SOFTER; SANDY; LITTLE DUST. 17 - 20' - SHALE: BROWN CUTTINGS; SOFTER MATERIAL; LOTS OF DUST.
25			20 - 25' - SHALE: GREYISH-BROWN; SOFT MATERIAL; DUSTY. 25 - 27' - COAL: BLACK COAL CUTTINGS.
			27 - 30' - SHALE: GREY SHALE CUTTINGS; SOFT MATERIAL; LOW DUST.
30			30' - TERMINATED AT 30' BGS - SHALE.
35			

GRAPHIC LOG



WELL CONSTRUCTION DETAILS

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: SB-4 / MW-4

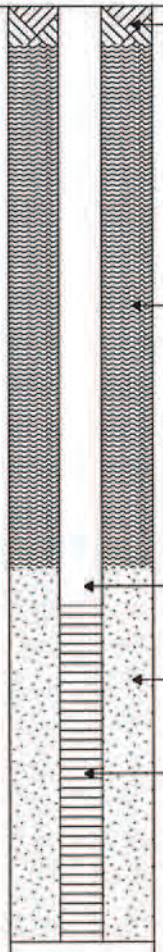
PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: REFUSAL - 6.5'/TERMINATED - 25.5' BGS.
SATURATED ZONE: N/A
TOC ELEVATION:

WEATHER: SNOW/20'S
LOGGED BY: BEN AZAR
DRILLING METHOD: DIRECT PUSH/AUGER/AIR ROTARY
OPERATOR: DREW SNYDER
BOREHOLE COMPLETION: SOIL BORING/MW
DATE: 3/7/2018
BOREHOLE DIAMETER: 4.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0	SB-4 / MW-4 (3.5')	0	0 - 1.25' - ASPHALT/SUB-BASE.
		0	1.25 - 2' - SILTY CLAY (CL-ML): GREY/TAN; MIXED WITH COARSE SHALE GRAVEL; HIGH MOISTURE; MEDIUM PLASTICITY.
		0	2 - 3.5' - SHALE: FLATLY STRATIFIED SILTSTONE COBBLES; MIXED WITH GREY/TAN SILTY CLAY; MEDIUM MOISTURE; MEDIUM PLASTICITY.
5		0	3.5 - 5' - SILTY CLAY (CL-ML): LOW TO MEDIUM MOISTURE; MOTTLED.
		0	5 - 6.5' - SHALE: SILTSTONE BEDROCK; REFUSAL AT 6.5' BGS.
		0	6.5 - 8' - SHALE: TAN; SOFT; WEATHERED.
10			8 - 10' - VOID/FRACTURE - NO RECOVERY.
			10 - 13' - SHALE: TAN; SOFT; COMPETENT ROCK AT 11' BGS - ODORS PRESENT.
			13 - 14' - SHALE: CUTTINGS CHANGE TO GREY/BLACK.
15			14 - 17' - SHALE: ODORS PRESENT; MOIST - SMALL AMOUNT OF WATER; ODOR TRANSITIONS TO STRONG ODORS.
			17 - 25.5' - SHALE: BLACK; APPROXIMATELY 0.75 GALLONS/MINUTE OF WATER; FRACTURES AT 22.5', 23.5' AND 24' BGS.
20			
25			25.5' - TERMINATED AT 25.5' BGS.
30			
35			

GRAPHIC LOG

WELL CONSTRUCTION DETAILS



MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: SB-5/MW-5

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: REFUSAL AT 5' BGS/TERMINATED AT 40' BGS
SATURATED ZONE: N/A
TOC ELEVATION:

WEATHER: SUN/80'S
LOGGED BY: ALLIE BERRY
DRILLING METHOD: AIR ROTARY
OPERATOR: DREW SNYDER
BOREHOLE COMPLETION: SOIL BORING/MW
DATE: 7/11/2018
BOREHOLE DIAMETER: 4.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0	SB-5/MW-5 (2')	1.4	0 - 0.5' - CONCRETE/ASPHALT.
		1.4	0.5 - 1' - CLAY (CL): DARK BROWN; MEDIUM MOISTURE;MEDIUM PLASTICITY; MIXED WITH SANDY SHALE FRAGMENTS.
		0.7	1 - 3' - SILTY CLAY (CL-ML): BROWNISH-ORANGE; LOW PLASTICITY AND MOISTURE; MIXED WITH SHALE FRAGMENTS.
		1.2	
5		0.8	3 - 4' - SILTY CLAY (CL-ML): BROWNISH-RED; LOW PLASTICITY AND MOISTURE; MIXED WITH SHALE FRAGMENTS.
		0.0	
		0.0	4 - 5' - SILTY CLAY (CL-ML): DARK BROWN; LOW PLASTICITY/LOW MOISTURE; MIXED WITH LARGE PIECES OF SANDY SHALE; AUGER REFUSAL AT 5' BGS.
		0.0	
		0.0	
10		0.0	5 - 6' - CLAY (CL): BROWNISH-ORANGE; LOW PLASTICITY AND MOISTURE; MIXED WITH SHALE FRAGMENTS.
			6 - 9' - SILTY CLAY (CL-ML): BROWN; LOW PLASTICITY AND MOISTURE.
			9 - 10.5' - COAL: MIXED WITH SOME RED CLAY.
15			10.5 - 11' - CLAY (CL): ORANGISH-GREY; LOW MOISTUE AND PLASTICITY; TRACE AMOUNTS OF COAL
			11 - 12' - CLAY (CL): GREENISH-ORANGE; LOW MOISTURE AND PLASTICITY; MIXED WITH SHALE FRAGMENTS.
20			12 - 13' - SHALE: MEDIUM GREY; FINE GRAINED; MIXED WITH ORANGISH-RED CLAY; SOIL BORING REFUSAL AT 13' BGS.
			13 - 17' - SHALE: DARK GREY; HARD MATERIAL; LOTS OF DUST; SOME TRAICES OF COAL - TRANSITIONS TO BEDROCK.
25			17 - 20' - SHALE: LIGHT GREY; SOFT MATERIAL; LOTS OF DUST.
			20 - 24' - COAL: BLACK CUTTINGS; LOTS OF DUST.
			24 - 33.3' - SHALE: LIGHT GREY SHALE CUTTINGS; SOFT MATERIAL; LOTS OF DUST.
30			
			33.3 - 33.5' - FRACTURE - CUTTINGS WERE MOIST; NO DUST.
35			33.5 - 37' - SHALE: LIGHT GREY SHALE

GRAPHIC LOG

WELL CONSTRUCTION DETAILS

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: SB-5/MW-5

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: REFUSAL AT 5' BGS/TERMINATED AT 40' BGS
SATURATED ZONE: N/A
TOC ELEVATION:

WEATHER: SUN/80'S
LOGGED BY: ALLIE BERRY
DRILLING METHOD: AIR ROTARY
OPERATOR: DREW SNYDER
BOREHOLE COMPLETION: SOIL BORING/MW
DATE: 7/11/2018
BOREHOLE DIAMETER: 4.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG	WELL CONSTRUCTION DETAILS
			CUTTINGS; SOME PIECES OF SANDSTONE CUTTINGS; SOFT MATERIAL; LITTLE DUST.		
			37 - 37.5' - FRACTURE/VOID.		
			37.5 - 40' 0 SHALE: LIGHT GREY SHALE CUTTINGS; MIXED WITH SOME SANDSTONE CUTTINGS.		
40			40' - TERMINATED AT 40' BGS.		
45					
50					
55					
60					
65					
70					

7/20/18

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: SB-12/MW-6

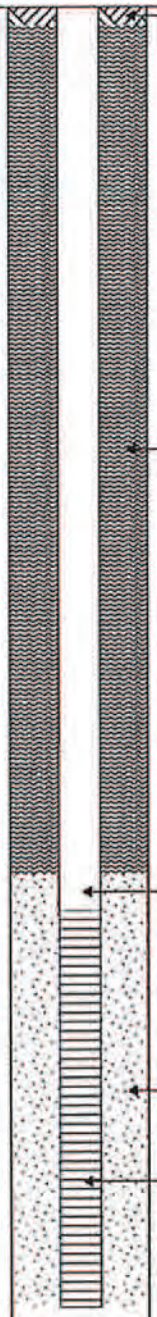
PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: REFUSAL AT 6.5' / TERMINATED AT 40' BGS
SATURATED ZONE: N/A
TOC ELEVATION:

WEATHER: SUN/80'S
LOGGED BY: ALLIE BERRY
DRILLING METHOD: AIR ROTARY
OPERATOR: DREW SNYDER
BOREHOLE COMPLETION: SOIL BORING/MW
DATE: 7/13/2018
BOREHOLE DIAMETER: 4.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0		0.0	0 - 0.5' - **GRAVEL** (GW): GRAVEL - MIXED WITH TOPSOIL AND EARTHY MATERIAL.
		0.0	0.5 - 1' - SILTY CLAY (CL-ML): ORANGISH-GREY; MEDIUM MOISTURE; HIGH PLASTICITY.
		0.0	1 - 2' - SILTY CLAY (CL-ML): ORANGISH-GREY; LOW MOISTURE; MEDIUM PLASTICITY; MIXED WITH SUBANGULAR SANDY SHALE FRAGMENTS.
		0.0	
5		0.0	2 - 3' - SILTY CLAY (CL-ML): DARK BROWN/ORANGE; MEDIUM MOISTURE AND PLASTICITY; MIXED WITH SMALL SHALE FRAGMENTS.
		0.0	
		0.0	
		0.0	
	SB-12/MW-6 (9')	0.0	3 - 4' - SILTY CLAY (CL-ML): ORANGISH-GREY; MEDIUM MOISTURE; HIGH PLASTICITY.
10			4 - 5' - SILTY CLAY (CL-ML): ORANGISH-GREY; MIXED WITH DARK BROWN ORGANIC MATERIAL (COAL SEAM); MEDIUM MOISTURE; HIGH PLASTICITY.
			5 - 7' - SILTY CLAY (CL-ML): ORANGISH-RED; MEDIUM MOISTURE AND PLASTICITY; AUGER REFUSAL AT 6.5' BGS;
15			7 - 9' - SILTY CLAY (CL-ML): ORANGISH-GREY; LOW MOISTURE AND PLASTICITY; MIXED WITH SHALE FRAGMENTS; SOIL BORING REFUSAL AT 9' BGS.
			9 - 11' - SHALE: LIGHT GREY SHALE CUTTINGS; MODERATE DUST; HIGHLY WEATHERED.
20			11 - 16 - SHALE: MEDIUM GREY SHALE CUTTINGS; **MODERATELY DUST - LITTLE HAMMERING.**
			16 - 17.5' - COAL: MODERATE DUST; SANDY.
			17.5 - 30' - SHALE: LIGHT GREY SANDY SHALE CUTTINGS; MODERATE DUST; HIGHLY WEATHERED; LITTLE HAMMERING.
25			
30			30 - 40' - SHALE: MEDIUM GREY SHALE CUTTINGS; WEATHERED; NO DUST; WATER AT 33.5' BGS.
35			

GRAPHIC LOG

WELL CONSTRUCTION DETAILS



MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: SB-12/MW-6

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: REFUSAL AT 6.5' / TERMINATED AT 40' BGS
SATURATED ZONE: N/A
TOC ELEVATION:

WEATHER: SUN/80'S
LOGGED BY: ALLIE BERRY
DRILLING METHOD: AIR ROTARY
OPERATOR: DREW SNYDER
BOREHOLE COMPLETION: SOIL BORING/MW
DATE: 7/13/2018
BOREHOLE DIAMETER: 4.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG	WELL CONSTRUCTION DETAILS
40			40' - TERMINATED AT 40' BGS.		
45					
50					
55					
60					
65					
70					

7/20/18

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-6**

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: REFUSAL AT 15' BGS.
SATURATED ZONE: N/A

WEATHER: 30'S/CLOUDY
LOGGED BY: JACOB CLARA
DRILLING METHOD: DIRECT PUSH
OPERATOR: JIM SPADE
BOREHOLE COMPLETION: SOIL BORING
DATE: 3/12/2018
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 0.5' - CONCRETE: MIXED WITH GRASS/SOD.	
		0	0.5 - 1.5' - SILTY CLAY (CL-ML): GREY - ORANGE; MIXED WITH FILL; NO ODOR.	
		0	1.5 - 3' - SILTY CLAY (CL-ML): GREY - BLUE - ORANGE; MIXED WITH SHALE FRAGMENTS; MEDIUM PLASTICITY; MEDIUM MOISTURE; NO ODOR.	
		0	3 - 5' - GREY - BLUE - ORANGE; MIXED WITH SUBANGULAR GRAVEL AND SHALE FRAGMENTS; NO ODOR.	
		0		
5		0	5 - 6' - SILTY CLAY (CL-ML): YELLOW - GREY; LOW PLASTICITY; LOW MOISTURE; NO ODOR.	
		0	6 - 7' - SILTY CLAY (CL-ML): YELLOW - BLACK; LOW PLASTICITY; MEDIUM MOISTURE; MIXED WITH SUBANGULAR GRAVEL AND SHALE FRAGMENTS; NO ODOR.	
		0	7 - 10' - SILTY CLAY (CL-ML): YELLOW - GREY; LARGE FRAGMENTS OF GRAVEL/SHALE; NO ODOR.	
		0.2		
10		1.0	10 - 13' - SILTY CLAY (CL-ML): GREYISH ORANGE; MIXED WITH SUBANGULAR GRAVEL/SHALE FRAGMENTS; NO ODOR.	
		1.2		
		1.4	13 - 15' - SILTY CLAY (CL-ML): GREYISH-BEIGE; MIXED WITH SUBANGULAR GRAVEL AND SHALE FRAGMENTS; NO ODOR.	
	SB-6 (14.5')	1.3		
15			15 - REFUSAL AT 15' BGS - SILTY CLAY.	
20		0.5		
25				
30				
35				

Jacob Clara 4-17-18

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: SB-7

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: REFUSAL AT 20' BGS.
SATURATED ZONE: N/A

WEATHER: 30'S/CLOUDY
LOGGED BY: JACOB CLARA
DRILLING METHOD: DIRECT PUSH
OPERATOR: DREW SNYDER
BOREHOLE COMPLETION: SOIL BORING
DATE: 3/8/2018
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 0.5' - CONCRETE.	
		0	0.5 - 1.5' - GRAVELLY CLAY (CLG): BROWN CLAY WITH FILL; MIXED WITH LARGE BROWN SHALE AND GRAVEL COBBLES.	
		0		
		0	1.5 - 3' - SILTY CLAY (CL-ML): BROWN; SHALE FRAGMENTS AND SUBANGULAR GRAVEL FRAGMENTS PRESENT.	
		0	3 - 4' - SILTY CLAY (CL-ML): BROWN; SHALE FRAGMENTS PRESENT.	
5		0	4 - 5' - SILTY CLAY (CL-ML): BROWN - ORANGE; MOTTLED; SUBANGULAR GRAVEL FRAGMENTS PRESENT; MEDIUM PLASTICITY; MEDIUM MOISTURE.	
		0	5 - 7' - SILTY CLAY (CL-ML): BROWN - ORANGE; MIXED WITH SLUFF; LARGE GRAVEL COBBLES PRESENT.	
		0		
		0	7 - 8.5' - SILTY CLAY (CL-ML): BROWN; MEDIUM PLASTICITY; MEDIUM MOISTURE.	
		0	8.5 - 10' - SILTY CLAY (CL-ML): BROWN - ORANGE; LOW PLASTICITY; LOW MOISTURE.	
10		3.4	10 - 12' - SILTY CLAY (CL-ML): BEIGE - BROWN; MEDIUM PLASTICITY; MEDIUM MOISTURE.	
		9.9		
		37.5	12 - 14' - SILTY CLAY (CL-ML): BEIGE; SHALE FRAGMENTS PRESENT; ODOR FROM 13 TO 14' BGS.	
		56.7		
		109.5	14 - 15' - SILTY CLAY (CL-ML): ORANGE - BEIGE; SHALE FRAGMENTS PRESENT; LOW PLASTICITY; LOW MOISTURE; ODOR FROM 14 TO 15' BGS.	
15	SB-7 (15.0')	109.0		
		74.5	15 - 17' - SILTY CLAY (CL-ML): BROWN; SHALE FRAGMENTS PRESENT; LOW PLASTICITY; LOW MOISTURE.	
		24.0		
	SB-7 (18.5')	28.5	17 - 19' - SILTY CLAY (CL-ML): RED - ORANGE - BROWN; SHALE FRAGMENTS PRESENT; LOW PLASTICITY.	
		75.6		
20			19 - 20' - SHALE: WEATHERED SHALE WITH SMALL AMOUNTS OF RED - ORANGE SILTY CLAY .	
			20' - REFUSAL AT 20' BGS - SHALE.	
25				
30				
35				

Jacob Clara 4-27-18

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-8**

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: REFUSAL AT 16.5' BGS.
SATURATED ZONE: N/A

WEATHER: 30'S/CLOUDY
LOGGED BY: JACOB CLARA
DRILLING METHOD: DIRECT PUSH
OPERATOR: DREW SNYDER
BOREHOLE COMPLETION: SOIL BORING
DATE: 3/8/2018
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 0.5' - CONCRETE.	
		0	0.5 - 1.5' - CLAY (CL): BROWN; MIXED WITH FILL.	
		0	1.5 - 3.5' - SILTY CLAY (CL-ML): BROWN; MIXED WITH SHALE FRAGMENTS; NO ODOR.	
		0		
		0	3.5 - 5' - SILTY CLAY (CL-ML): BROWN; MIXED WITH SHALE FRAGMENTS; MEDIUM PLASTICITY; MEDIUM MOISTURE.	
5		0	5 - 6' - SILTY CLAY (CL-ML): BROWN - ORANGE; MIXED WITH SHALE AND GRAVEL FRAGMENTS.	
		0		
		0.1	6 - 6.5' - SILTY CLAY (CL-ML): ORANGE; MIXED WITH SHALE FRAGMENTS; LOW PLASTICITY; MEDIUM MOISTURE.	
		0.2		
	SB-8 (9.5')	13.7	6.5 - 8' - SILTY CLAY (CL-ML): BEIGE; MIXED WITH SHALE FRAGMENTS; LOW PLASTICITY; LOW MOISTURE.	
10		27.1	8 - 10' - SILTY CLAY (CL-ML): BROWN - ORANGE; MIXED WITH LARGER SHALE AND GRAVEL COBBLES.	
		12.1		
	SB-8 (12')	211.5	10 - 12' - SILTY CLAY (CL-ML): BEIGE; MIXED WITH SHALE FRAGMENTS; LOW PLASTICITY; LOW MOISTURE.	
		112.4		
		459	12 - 12.5' - SHALE: WEATHERED.	
			12.5' - REFUSAL AT 12.5' BGS - BLACK SHALE.	
15				
20				
25				
30				
35				

Jacob Clara 4-27-18

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-9**

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: REFUSAL AT 12' BGS.
SATURATED ZONE: 7' BGS.

WEATHER: 30'S/CLOUDY
LOGGED BY: JACOB CLARA
DRILLING METHOD: DIRECT PUSH
OPERATOR: DREW SNYDER
BOREHOLE COMPLETION: SOIL BORING
DATE: 3/8/2018
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 0.5' - CONCRETE.	
		0	0.5 - 1.5' - SILTY CLAY (CL-ML): BEIGE; MIXED WITH FILL.	
		0	1.5 - 3' - SILTY CLAY (CL-ML): BLUISH-BROWN; SHALE FRAGMENTS AND GRAVEL PRESENT; MEDIUM PLASTICITY; MEDIUM MOISTURE.	
		0	3 - 4' - CLAY (CL): BLUISH-BROWN; MEDIUM PLASTICITY; MEDIUM MOISTURE.	
		0	4 - 5' - SILTY CLAY (CL-ML): ORANGE - BROWN; MIXED WITH SHALE FRAGMENTS; LOW PLASTICITY; LOW MOISTURE.	
5		25.4		
	SB-9 (6.5')	160.5	5 - 7' - SILTY SAND (SM): BEIGE; MIXED WITH SHALE GRAVEL FRAGMENTS; MEDIUM PLASTICITY; MEDIUM MOISTURE.	
		791.0		
		1591	7 - 8' - SILTY CLAY (CL-ML): MIXED WITH SHALE FRAGMENTS; STAINED; STRONG ODOR; SATURATION AT 7' BGS.	
		359.4	8 - 10' - SILTY CLAY (CL-ML): BEIGE; POOR RECOVERY; MIXED WITH SHALE FRAGMENTS; LOW PLASTICITY; LOW MOISTURE.	
		502.4		
10		641	10 - 12' - SILTY CLAY (CL-ML): BEIGE; MIXED WITH LARGER WEATHERED SHALE FRAGMENTS.	
	SB-9 (11.5')	791		
		152	12' - REFUSAL AT 12' BGS - BLACK SHALE.	
15				
20				
25				
30				
35				

Jacob Clara 4-27-18

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-10**

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: REFUSAL AT 5' BGS.
SATURATED ZONE: N/A

WEATHER: SUN/80'S
LOGGED BY: ALLIE BERRY
DRILLING METHOD: DIRECT PUSH
OPERATOR: DREW SNYDER
BOREHOLE COMPLETION: SOIL BORING
DATE: 7/11/2018
BOREHOLE DIAMETER: 2"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 0.5' - CONCRETE.	
	SB-10 (2.0')	0.4	0.5 - 1' - SILTY CLAY (CL-ML): LIGHT ORANGE; LOW MOISTURE/LOW PLASTICITY; MIXED WITH GRAVEL SHALE.	
		0.9		
		0.3	1 - 4' - SILTY CLAY (CL-ML): LIGHT ORANGISH-BROWN; LOW PLASTICITY AND MOISTURE; MIXED WITH SANDSTONE FRAGMENTS.	
		--	4 - 4.5' - POOR RECOVERY.	
5	SB-10 (6.0')	8.9	4.5 - 6' - SILTY CLAY (CL-ML): ORANGISH-BROWN; MEDIUM MOISTURE AND PLASTICITY; MIXED WITH SUBANGULAR SANDSTONE FRAGMENTS.	
			6' - REFUSAL AT 6' BGS.	
10				
15				
20				
25				
30				
35				

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: SB-11

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: REFUSAL AT 6' BGS.
SATURATED ZONE: 1' BGS.

WEATHER: SUN/80'S
LOGGED BY: ALLIE BERRY
DRILLING METHOD: DIRECT PUSH
OPERATOR: DREW SNYDER
BOREHOLE COMPLETION: SOIL BORING
DATE: 7/11/2018
BOREHOLE DIAMETER: 2"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 0.5' - CONCRETE.	
	SB-11 (2')	0.0	0.5 - 1' - SILTY CLAY (CL-ML): BROWNISH-ORANGE; HIGH MOISTURE; LOW PLASTICITY; MIXED WITH SUBANGULAR PIECES OF SHALE; SATURATED AT 1' BGS.	
		22.3	1 - 3' - SILTY CLAY (CL-ML): ORANGISH-BROWN; HIGH MOISTURE; LOW PLASTICITY; MIXED WITH SMALL SUBANGULAR PIECES OF SANDY SHALE.	
		5.7	3 - 5' - SILTY CLAY (CL-ML): ORANGISH-BROWN; HIGH MOISTURE; MEDIUM PLASTICITY; WATER PRESENT; NOTICEABLE AMOUNTS OF SHEED IN ODOR IN WATER AT 4' BGS; MIXED WITH SUBANGULAR SANDSTONE FRAGMENTS.	
		3.6		
5		2.9		
	SB-11 (6')	52.5	5 - 6' - CLAY (CL): BROWNISH-GREY; HIGH MOISTURE; MEDIUM PLASTICITY; STAINING PRESENT; MIXED WITH SANDSTONE FRAGMENTS.	
			6' - REFUSAL AT 6' BGS.	
10				
15				
20				
25				
30				
35				

7/20/18

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

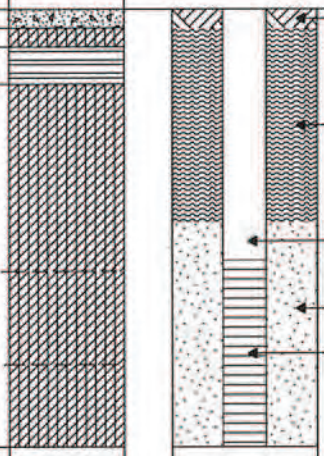
WELL NO.: SB-13/MW-7

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: REFUSAL AT 11.7' BGS.
SATURATED ZONE: N/A
TOC ELEVATION:

WEATHER: 50'S/CLOUDY
LOGGED BY: JOHN DIBERT
DRILLING METHOD: DIRECT PUSH
OPERATOR: TERRA TESTING
BOREHOLE COMPLETION: SOIL BORING/MW
DATE: 10/22/2018
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0			0 - 0.5' - CONCRETE.
		0.0	0.5 - 1' - SILTY CLAY (CL-ML): DARK BROWN/WHEAT KHAKI; CRUMBLY MATRIX; 0.5 - 2 CM PEBBLES; ANGULAR AND SORTED.
		0.0	
		0.0	1 - 2' - SHALE: SLATE SHALE FILL; FLAT; BRITTLE; DARK BROWN TO BLACK ROCKS; 2 TO 9 CM PEBBLES.
		0.0	
		0.0	
5			2 - 7' - SILTY CLAY (CL-ML): ORANGE - DARK BROWN TO BLACK; 0.5 TO 1 CM PEBBLES; COMPACTED; AIR KNIFE REFUSAL.
		9156	7 - 9.5' - SILTY CLAY (CL-ML): FUSION OF GREY/BROWN/RED; VERY MOIST; STRONG ODOR; LOW RETURNS.
	SB-13/MW-7 (9')		
10		652	9.5 - 11.7' - SILTY CLAY (CL-ML): LIGHT BROWN/KHAKI; VERY BRITTLE; 1 TO 2 CM PEBBLES.
			11.7' - REFUSAL AT 11.7' BGS.
15			
20			
25			
30			
35			

GRAPHIC LOG



WELL CONSTRUCTION DETAILS

CONCRETE 0 - 0.5'

BENTONITE 0.5 - 5.7'

PVC RISER DIA 2" 0 - 6.7'

FILTER SAND 8.7 - 11.7

WELL SCREEN DIA 2" SLOT 0.010 6.7 - 11.7'

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: SB-14/MW-8

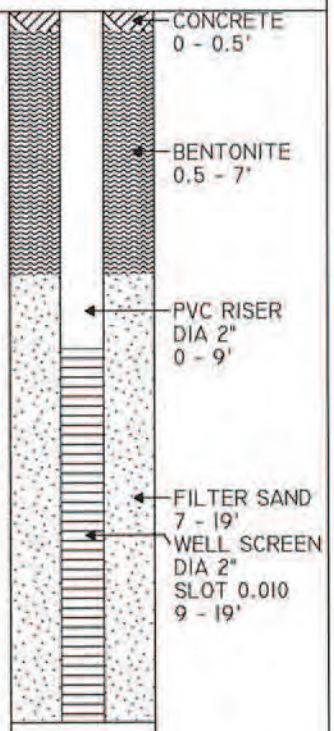
PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: REFUSAL AT 19' BGS.
SATURATED ZONE: N/A
TOC ELEVATION:

WEATHER: 40'S/CLOUDY
LOGGED BY: JOHN DIBERT
DRILLING METHOD: DIRECT PUSH
OPERATOR: TERRA TESTING
BOREHOLE COMPLETION: SOIL BORING/MW
DATE: 10/27/2018
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0			0 - 0.1' - VEGETATION.
		6.1	0.1 - 2.7' - SILTY CLAY (CL-ML): BROWN/MATTE BLACK; 0.5 - 1 CM PEBBLES; LOOSELY COMPACTED; 10+ CM BOULDERS PRESENT.
		0.3	
		0.1	2.7 - 4' - SILTY CLAY (CL-ML): BURNT ORANGE/KHAKI/BROWN; 0.5 TO 1 CM PEBBLES PRESENT; COMPACT; ODOR PRESENT AT 4' BGS.
		0.1	
5		19.6	4 - 8' - SILTY CLAY (CL-ML): BLACK/DARK BROWN; MOIST; 0.5 TO 1 CM PEBBLES; LOOSE/COMPACTED MATRIX; WEAK TO NO ODOR.
		10.6	
			8 - 9.5' - SILTY CLAY (CL-ML): BLACK/BROWN; STREAKED; VERY COMPACT; NO PEBBLES; LOOSE MATERIAL.
10		9.4	
	SB-14/MW-8 (12')	112.5	9.5 - 11' - SILTY CLAY (CL-ML): BROWN/TAN; MOIST; VERY COMPACT MATRIX; 1 TO 2 CM PEBBLES; RANDOMLY MOIST.
			11 - 12.5' - SILTY CLAY (CL-ML): TAN/BROWN; CRUMBLY; 0.5 TO 1 CM PEBBLES; LOOSELY COMPACTED; VERY DRY.
		8.7	
15			12.5 - 15.5' - SILTY CLAY (CL-ML): DARK BROWN - WITH SPOTS OF RED AND ORANGE; BLOCKY ANGULAR PIECES; SLIGHTLY MOIST.
			15.5 - 19' - SILTY CLAY (CL-ML): BROWN/BLACK; INTERBEDDED; BRITTLE PIECES; VERY COMPACT; TRANSITIONS TO MULTI COLORS - BLACK - ORANGE - BROWN.
20			19' - REFUSAL AT 19' BGS.
25			
30			
35			

GRAPHIC LOG

WELL CONSTRUCTION DETAILS



MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: SB-15/MW-4BR

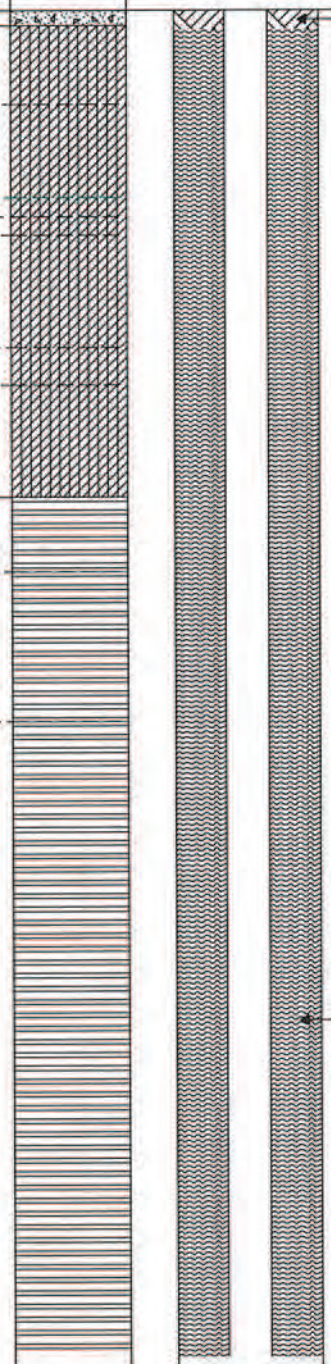
PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: TERMINATED AT 70.5' BGS.
SATURATED ZONE: N/A
TOC ELEVATION:

WEATHER: 30'S/CLOUDY
LOGGED BY: JOHN DIBERT
DRILLING METHOD: DIRECT PUSH/AR/AUGER/AIR KNIFE
OPERATOR: TERRA TESTING
BOREHOLE COMPLETION: SOIL BORING/MW
DATE: 10/30/2018
BOREHOLE DIAMETER: 2.25" / 4.25" / 8.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0			0 - 0.4' - PAVEMENT.
		0.0	0.4 - 2.5' - SILTY CLAY (CL-ML): BURNT ORANGE/BROWN; LOOSELY COMPACTED; 0.5 - 2 CM PEBBLES; DRY.
		0.1	
		0.1	2.5 - 5' - SILTY CLAY (CL-ML): BLACK/BURNT ORANGE/BROWN; SLIGHTLY MORE COMPACT MATRIX; 0.5 TO 2 C, PEBBLES; DRY TO MOIST; 3' BGS - LARGE BOULDER - AIR KNIFE UTILIZED FROM 0 TO 5' BGS - AIR KNIFE REFUSAL AT 5' BGS.
		0.0	
		10.5	
5	SB-15/MW-4BR (6')	32.8	
		0.1	
			5 - 5.5' - SILTY CLAY (CL-ML): LIGHT TAN/BROWN; SOFT TO MOIST TEXTURE.
		2.4	5.5 - 6' - SILTY CLAY (CL-ML): BROWN/BLACK; LOOSE MATRIX; 1 - 2 CM PEBBLES.
10			6 - 9' - SILTY CLAY (CL-ML): BLACK/GREY/BROWN; LOOSE LIMESTONE - 1 TO 3 CM PIECES.
		12.8	
		12.8	9 - 10' SILTY CLAY (CL-ML): LOOSELY COMPACTED; MIXED WITH LIMESTONE PIECES (1 TO 3 CM).
15		9.4	
			10 - 13' - SILTY CLAY (CL-ML): TAN/BROWN/KHAKI; DRY; CRUMBLY - 1 TO 2 CM PEBBLES; AUGER UTILIZED FROM 5 TO 13' BGS - AUGER REFUSAL AT 13' BGS; AIR ROTARY UTILIZED FROM 13 TO 70.5' BGS.
		1.8	
		10.9	
20			13 - 15' - SHALE: STRONG BROWN; DRY; CRUMBLY; MIXED WITH 1 TO 2 CM SILTY CLAY PEBBBLES.
			15 - 19' - SHALE: BROWN/BLACK; INTERMITTENT 0.5 TO 1 CM BRITTLE PIECES.
			19 - 70.5' - SHALE: LIGHT GREY; COAL PATCH AT 19' BGS.
25			
30			
35			

GRAPHIC LOG

WELL CONSTRUCTION DETAILS



12/17/18

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: SB-15/MW-4BR

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: TERMINATED AT 70.5' BGS.
SATURATED ZONE: N/A
TOC ELEVATION:

WEATHER: 30'S/CLOUDY
LOGGED BY: JOHN DIBERT
DRILLING METHOD: DIRECT PUSH/AR/AUGER/AIR KNIFE
OPERATOR: TERRA TESTING
BOREHOLE COMPLETION: SOIL BORING/MW
DATE: 10/30/2018
BOREHOLE DIAMETER: 2.25" / 4.25" / 8.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG	WELL CONSTRUCTION DETAILS
40					
45					
50					
55					PVC RISER DIA 2" 0 - 55.5
60					FILTER SAND 53.5 - 70.5'
65					WELL SCREEN DIA 2" SLOT 0.010 55.5 - 70.5'
70			70.5' - TERMINATED AT 70.5' BGS.		

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: SB-16/MW-2BR

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: TERMINATED AT 58.5' BGS.
SATURATED ZONE:
TOC ELEVATION:

WEATHER: 40'S/CLOUDY
LOGGED BY: JOHN DIBERT
DRILLING METHOD: AR/AUGER/AIR KNIFE/DIRECT PUSH
OPERATOR: TERRA TESTING
BOREHOLE COMPLETION: SOIL BORING/MW
DATE: 10/29/2018
BOREHOLE DIAMETER: 2.25" / 4.25" / 8.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG	WELL CONSTRUCTION DETAILS
40					PVC RISER DIA 2" 0 - 38.5'; FILTER SAND 36.5 - 58.5'
45					
50					WELL SCREEN DIA 2" SLOT 0.010 38.5 - 58.8'
55					
			58.8' - TERMINATED AT 58.8' BGS.		
60					
65					
70					

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: SB-16/MW-2BR

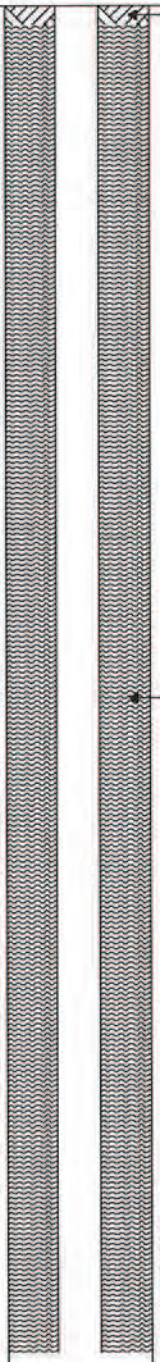
PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: TERMINATED AT 58.5' BGS.
SATURATED ZONE:
TOC ELEVATION:

WEATHER: 40'S/CLOUDY
LOGGED BY: JOHN DIBERT
DRILLING METHOD: AR/AUGER/AIR KNIFE/DIRECT PUSH
OPERATOR: TERRA TESTING
BOREHOLE COMPLETION: SOIL BORING/MW
DATE: 10/29/2018
BOREHOLE DIAMETER: 2.25" / 4.25" / 8.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0			0 - 0.5' - CONCRETE.
		0.0	0.5 - 2.5' - SILTY CLAY (CL-ML): LOOSELY COMPACTED; 0.5 - 3 CM PEBBLES.
		0.0	
		6.6	2.5 - 5' - SILTY CLAY (CL-ML): ORANGE/BURNT RED; COMPLETED; 0.5 - 3 CM PEBBLES MATRIX; AIR KNIFE UTILIZED FROM 0 TO 5' BGS.
5		1.9	5 - 6' - SILTY CLAY (CL-ML): BLACK/BROWN; VERY MOIST; COMPLEX MATRIX.
		3.6	
	SB-16/MW-2BR (7')		6 - 7' - SANDY CLAY (CLS): TAN/KHAKI/BROWN; HARD ROCK; VERY COMPACT; DRY; AUGER UTILIZED FROM 5 TO 7' BGS.
			7 - 18' - SHALE: DARK BROWN; AUGER REFUSAL AT 7' BGS; AIR ROTARY UTILIZING FROM 7 TO 58.5' BGS.
10			
15			
			18 - 58.8' - SHALE: LIGHT GREY.
20			
25			
30			
35			

GRAPHIC LOG

WELL CONSTRUCTION DETAILS



12/17/18

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

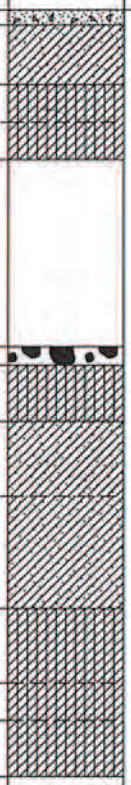
WELL NO.: SB-17/MW-9

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: REFUSAL AT 20.5' BGS.
SATURATED ZONE: N/A
TOC ELEVATION:

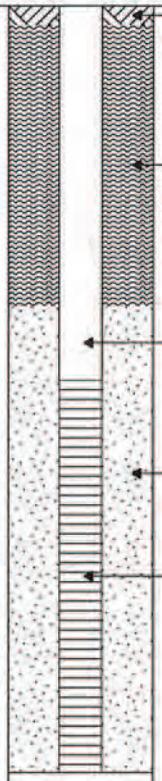
WEATHER: 40'S/BRISK
LOGGED BY: JOHN DIBERT
DRILLING METHOD: DIRECT PUSH
OPERATOR: TERRA TESTING
BOREHOLE COMPLETION: SOIL BORING/MW
DATE: 10/26/2018
BOREHOLE DIAMETER: 2"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0			0 - 0.4' - PAVEMENT.
		0.0	0.4 - 2' - SANDY CLAY (CLS): LOOSELY COMPACTED; 0.5 - 2 CM PEBBLES PRESENT.
		0.0	
		0.1	2 - 3' - SILTY CLAY (CL-ML): DARK EARTHY BROWN; DRY/MOIST; COMPACTED MATRIX; 0.5 TO 1 CM PEBBLES.
		0.0	
5			3 - 4' - SILTY CLAY (CL-ML): BURNT ORANGE/REDDISH-BROWN; VERY COMPACT; 0.5 TO 1 CM PEBBLES; MOIST.
			4 - 9' - NO RECOVERY.
		0.1	9 - 9.5' - GRAVEL (GW): BLAK/BTOWN; SMALL MATRIX; LOOSELY COMPACTED; 0.1 TO 0.3 CM PEBBLES.
10		1.3	
		2.2	9.5 - 11' - SILTY CLAY (CL-ML): BLACK / EARTHY BROWN / CREAMY WHITE; VERY COMPACT MATRIX.
		1.2	11 - 13' - SANDY CLAY (CLS): RED/ORANGE; VERY HARD AND COMPACTED; 1 - 3 CM PEBBLES.
15		1.6	13 - 16' - SANDY CLAY (CLS): EARTHY BROWN / BLACK / ORANGE/WHITE; MOIST AT 13' BGS / DRIER AT 15' BGS; VERY COMPACT; VERY LITTLE PEBBLES.
		54.1	
	SB-17/MW-9 (19')	28.3	16 - 18' - SILTY CLAY (CL-ML): ORANGE/BROWN; VERY COMPACTED; NO PEBBLES.
20		4.9	18 - 19' - SILTY CLAY (CL-ML): EARTHY BLACK/BROWN WITH ORANGE SPOTS; VERY BRITTLE TO VERY COMPACT.
			19 - 20.5' - SILTY CLAY (CL-ML): LIGHT ORANGE / BROWN; DRY; VERY COMPACTED.
25			
30			
35			

GRAPHIC LOG



WELL CONSTRUCTION DETAILS



MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: MW-IBR

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: TERMINATED AT 58.8' BGS.
SATURATED ZONE: N/A
TOC ELEVATION:

WEATHER: 40'S/RAINING
LOGGED BY: JOHN DIBERT
DRILLING METHOD: DIRECT PUSH/AR/AUGER/AIR KNIFE
OPERATOR: TERRA TESTING
BOREHOLE COMPLETION: MONITORING WELL
DATE: 10/29/2018
BOREHOLE DIAMETER: 2.25"/4.25"/8.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0			0 - 0.8" - CONCRETE.
			0.8 - 4.1 - SILTY CLAY (CL-ML): RED/WHITE/GREY (MULTI-COLORED); DRY; BRITTLE; SLIGHTLY MOIST; 0 - 4.1 - AIR KNIFE.
5			4.1 - 12' - CLAY (CL): LIGHT TAN/KHAKI; UNIFORM CLAY; AUGER UTILIZED FROM 4.1 TO 12' BGS - AUGER REFUSAL AT 12' BGS.
10			
			12 - 20' - SHALE: DARK-GREYISH BROWN; AIR ROTARY UTILIZED FRM 12 TO 58.8' BGS.
15			
20			20 - 25' - SHALE: STRONG BROWN.
25			25 - 58.8' - SHALE: LIGHT GREY; SMALL COAL PATCH.
30			
35			

GRAPHIC LOG

WELL CONSTRUCTION DETAILS

12/17/18

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: MW-IBR

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: TERMINATED AT 58.8' BGS.
SATURATED ZONE: N/A
TOC ELEVATION:

WEATHER: 40'S/RAINING
LOGGED BY: JOHN DIBERT
DRILLING METHOD: DIRECT PUSH/AR/AUGER/AIR KNIFE
OPERATOR: TERRA TESTING
BOREHOLE COMPLETION: MONITORING WELL
DATE: 10/29/2018
BOREHOLE DIAMETER: 2.25"/4.25"/8.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG	WELL CONSTRUCTION DETAILS
40					PVC RISER DIA 2" 0.5 - 38.5'
45					
50					WELL SCREEN DIA 2" SLOT 0.010 38.5 - 58.8'
55					
60			58.8' - TERMINATED AT 58.8' BGS.		
65					
70					

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: **MW-3BR**

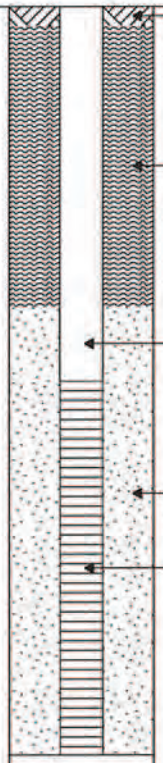
PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: REFUSAL AT 20' BGS.
SATURATED ZONE: 18.5' BGS.
TOC ELEVATION:

WEATHER: 50'S/SUNNY
LOGGED BY: JOHN DIBERT
DRILLING METHOD: DIRECT PUSH/AR/AUGER/AIR KNIFE
OPERATOR: TERRA TESTING
BOREHOLE COMPLETION: MONITORING WELL
DATE: 10/30/2018
BOREHOLE DIAMETER: 2.25"/4.25"/8.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0			0 - 0.5' - PAVEMENT.
		0.0	0.5 - 8' - SILTY CLAY (CL-ML): BROWN/ORANGE; 0.5 - 3 CM PEBBLES; LOOSELY COMPACTED; AIR KNIFE REFUSAL AT 4.5' BGS; AUGER UTILIZED FRM 4.4 TO 11' BGS.
		0.0	
5			
		125	8 - 11' - SILTY CLAY (CL-ML): STRONG BROWN; CRUMBLY; HIGH ODOR.
		405	
10		145	
		163	11 - 20' - SHALE: LIGHT BROWN; HIGH ODOR; MOIST; SATURATED AT 18.5' BGS.
		40	
15			
20			20' - REFUSAL AT 20' BGS.
25			
30			
35			

GRAPHIC LOG

WELL CONSTRUCTION DETAILS



MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

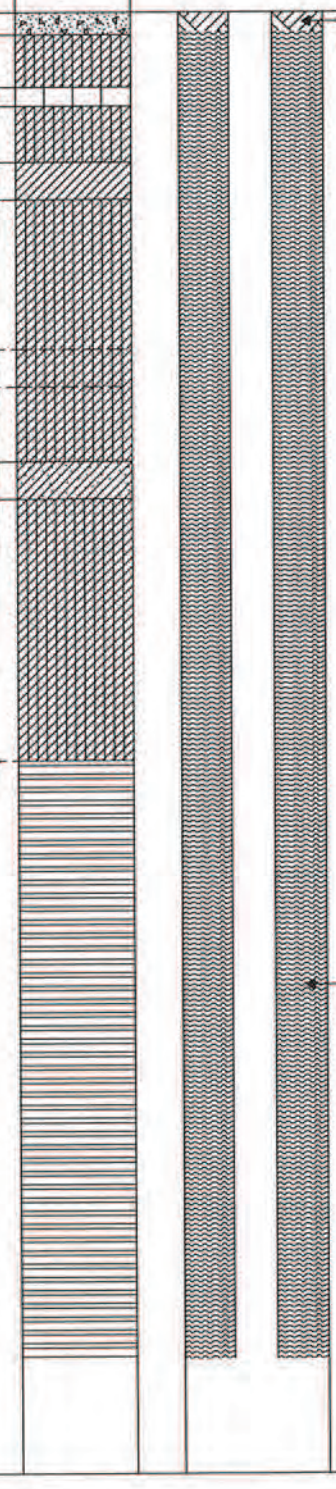
WELL NO.: SB-18/MW-5BR

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: TERMINATED AT 79.5' BGS.
SATURATED ZONE: N/A
TOC ELEVATION:

WEATHER: 40'S
LOGGED BY: JOHN DIBERT
DRILLING METHOD: DIRECT PUSH/AR/AUGER/AIR KNIFE
OPERATOR: TERRA TESTING
BOREHOLE COMPLETION: SOIL BORING/MW
DATE: 10/26/2018
BOREHOLE DIAMETER: 2"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0			0 - 0.6' - PAVEMENT.
		0.0	0.6 - 2' - SILTY CLAY (CL-ML): BURNT ORANGE/REDDISH BROWN; STANDING WATER (1' DEPTH); VERY MOIST; 1 TO 3 CM PEBBLES - VERY WELL COMPACTED.
		0.1	
		0.2	
		0.0	2 - 2.5' - SILT (ML): TAN/KHAKI; DRY; COMPACT; MOIST; 1 TO 2 CM PEBBLES.
5		0.0	2.5 - 4' - SILTY CLAY (CL-ML): CHALK WHITE - TRANSITIONS TO BROWN/BLACK; VERY DRY; COMPACT; NO PEBBLES.
		3.2	4 - 5' - CLAY (CL): RED/WHITE/BROWN; CHALKY; COMPCT; MOISTURE PRESENT; SILTY; NO PEBBLES; AIR KNIFE UTILIZED FROM 9 TO 5' BGS - REFUSAL AT 5' BGS; AUGER UTILIZED FROM 5 TO 20' BGS.
		0.7	
10		7.8	5 - 9' - SILTY CLAY (CL-ML): MULTI-COLORED - ORANGE/WHITE/BROWN/; MOIST; 0.5 TO 1 CM PEBBLES; COMPACT MATRIX.
		0.1	9 - 10' - SILTY CLAY (CL-ML): DARK BROWN; CRUMBLY TEXTURE; SMALL PEBBLES (0.1 TO 0.3 MM MATRIX).
15	SB-18/MW-5BR (17')	567.3	10 - 12' - SILTY CLAY (CL-ML): LIGHT GREY; VERY COMPACTED; 1 TO 2 CM PEBBLES; MOIST.
			12 - 13' - SANDY CLAY (CLS): BROWNISH-YELLOW; VERY COMPACT MATRIX; SLIGHT ODOR.
20			13 - 20' - SILTY CLAY (CL-ML): STRONG BROWN - TRANSITIONS TO DARK REDDISH-BROWN; DRY; CRUMBLY; MODERATELY TO LOOSELY COMPACTED; AIR ROTARY UTILIZED FROM 20 - 79.5' BGS.
			20 - 79.5' BGS - SHALE: LIGHT GREY; INTERMITTENT COAL PATCH.
25			
30			
35			

GRAPHIC LOG



WELL CONSTRUCTION DETAILS

12/17/18

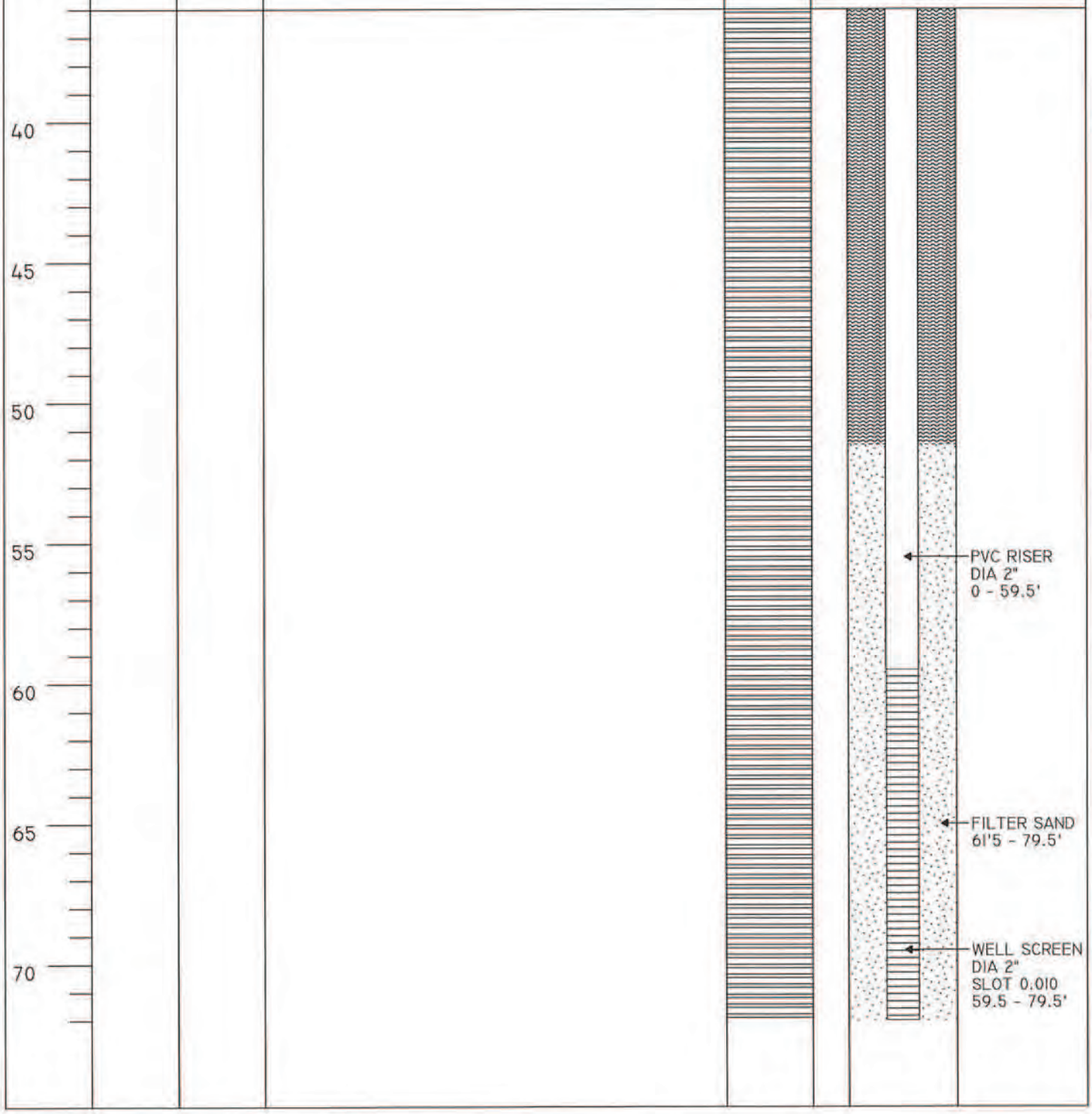
MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: SB-18/MW-5BR

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: TERMINATED AT 79.5' BGS.
SATURATED ZONE: N/A
TOC ELEVATION:

WEATHER: 40'S
LOGGED BY: JOHN DIBERT
DRILLING METHOD: DIRECT PUSH/AR/AUGER/AIR KNIFE
OPERATOR: TERRA TESTING
BOREHOLE COMPLETION: SOIL BORING/MW
DATE: 10/26/2018
BOREHOLE DIAMETER: 2"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG	WELL CONSTRUCTION DETAILS



MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: SB-18/MW-5BR

PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: TERMINATED AT 79.5' BGS.
SATURATED ZONE: N/A
TOC ELEVATION:

WEATHER: 40'S
LOGGED BY: JOHN DIBERT
DRILLING METHOD: DIRECT PUSH/AR/AUGER/AIR KNIFE
OPERATOR: TERRA TESTING
BOREHOLE COMPLETION: SOIL BORING/MW
DATE: 10/26/2018
BOREHOLE DIAMETER: 2"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG	WELL CONSTRUCTION DETAILS
75					
80			79.5' - TERMINATED AT 79.5' BGS.		
85					
90					
95					
100					
105					

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: RW-1

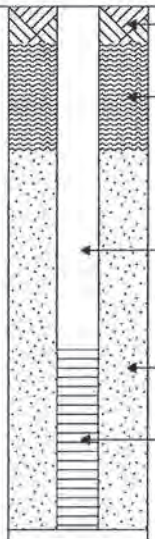
PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: REFUSAL AT 14.5' BGS.
SATURATED ZONE: N/A
TOC ELEVATION:

WEATHER: OVERCAST/20'S
LOGGED BY: ADAM KOVAC
DRILLING METHOD: AUGER/SPLIT SPOON
OPERATOR: TERRA TESTING
BOREHOLE COMPLETION: RECOVERY WELL
DATE: 1/16/2018
BOREHOLE DIAMETER: 6.25

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0		12.1	0 - 8' - CLAY (CL): ORANGE/BROWN CLAY WITH BROWN SHALE / EXCAVATED MATERIAL THAT WAS BACKFILLED.
		14.6	
		20.1	
		8.9	
5		4.6	
		12.6	
		27.9	
		54.6	8 - 10.5 - SILTY CLAY (CL-ML): BROWN/ORANGE; MOTTLED; LOW PLASTICITY; SHALE FRAGMENTS PRESENT.
		1096	
10		897	
		1122	10.5 - 12' - SHALE: BROWN; WEATHERED; SMALL PIECES; VERY SOFT.
		487	12 - 14.5' - SILTY CLAY (CL-ML): BROWN/ORANGE; MOTTLED; INCREASING SHALE FRAGMENTS.
		392	
		501	
15		437	14.5' - REFUSAL AT 14.5' BGS - BROWN SHALE.
20			
25			
30			
35			

GRAPHIC LOG

WELL CONSTRUCTION DETAILS



Adam Kovac
2/1/18

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: RW-2

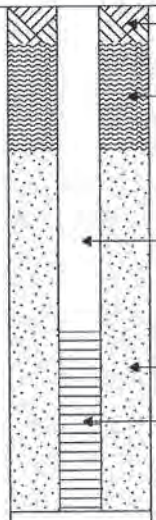
PROJECT NO.: 4923.18.01
PROJECT NAME: SPILL RESPONSE
CLIENT: WOODLAND FOOD AND FUEL
LOCATION: WOODLAND, PA
DEPTH: REFUSAL AT 14' BGS.
SATURATED ZONE: N/A
TOC ELEVATION:

WEATHER: OVERCAST/20'S
LOGGED BY: ADAM KOVAC
DRILLING METHOD: AUGER/SPLIT SPOON
OPERATOR: TERRA TESTING
BOREHOLE COMPLETION: RECOVERY WELL
DATE: 1/16/2018
BOREHOLE DIAMETER: 6.25

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0			0 - 0.5' - ASPHALT.
		0.0	0.5 - 3.5' - FILL MATERIAL: MOSTLY SHALE; VERY HARD.
		0.0	
		0.0	
		0.0	3.5 - 7' - SILTY CLAY (CL-ML): BROWN/ORANGE; MIXED WITH LOTS OF WEATHERED BROWN SHALE FRAGMENTS.
5		0.0	
		0.0	
		26.8	7 - 8.5' - SHALE: SMALL PIECES - LESS THAN 0.25"; VERY SOFT AND WEATHERED.
		123	
		116.7	8.5 - 14' - SILTY CLAY (CL-ML): BROWN/ORANGE; INCREASING AMOUNTS OF SHALE.
10		124.6	
		109.7	
		457	
		1192	
		695	14' - REFUSAL AT 14' BGS - BROWN SHALE.
15			
20			
25			
30			
35			

GRAPHIC LOG

WELL CONSTRUCTION DETAILS



Adam Kovac
2/1/18

APPENDIX I

ANALYTICAL DATA REPORT- GEOTECH

DENSITY DETERMINATIONS

Client	Mountain Research, LLC
Project	24948
Project No.	39960

Boring Number	SB-6									
Depth	10.0'-12.0'									
Sample	SB-6									
Lab Sample No.	39960001									
Water Contents										
Tare Number	606									
Wt. Tare & WS, gm	528.37									
Wt. Tare & DS, gm	482.79									
Wt. Tare, gm	141.07									
Water Content, %	**13.3%**									
Direct Measurement Method										
Wt. Of Wet Soil + tube., gm	419.45									
Wt of empty tube, gm	24.31									
Wt. of Wet Soil, gm	395.14									
Length 1, in	5.195									
Length 2, in	5.225									
Length 3, in	5.165									
Top Diameter, in	1.668									
Middle Diameter, in	1.625									
Bottom Diameter, in	1.68									
Sample Volume, cc	183.73									
Water Content ,%	13.3%									
Unit Wet Wt., gm/cc	2.15									
Unit Wet Wt., pcf	134.2									
Unit Dry Wt., pcf	**118.4**									
Unit Dry Wt., gm/cc	1.90									
Specific Gravity, Assumed	2.7									
Void Ratio,e	0.42									
Porosity, n	0.30									
Saturation, %	85.2%									

Input Validation: JSJ Reviewed By: ALO Date: 4/8/2018

SPECIFIC GRAVITY OF SOILS - ASTM D854 (B)

Client: Mountain Research, LLC
Client Project: 24948 - 4932.18.01
Project No.: 39960

Lab Sample No.	Boring	Depth	Sample	Replicate No.	Material Used	Passing #4 Sieve	Pycnometer Id.	Pre-test Pycnometer Check Weight	Weight Pycnometer +Soil+Water	Test Temp.	Tare No.	Weight Tare+ Dry Soil	Tare Weight	Weight Dry Soil	Test Water Density	Weight Pycnometer +Water at Test Temp	Average Calibrated Pycnometer Dry Weight	Average Calibrated Volume of Pycnometer	Specific Gravity of Soil at Test Temp	Conversion Factor For Temp	Specific Gravity of Soil at 20°C
								gm	gm	°C		gm	gm	gm	gm/ml	gm	gm	ml	g/cc		g/cc
					Sieve	%		Mp	Mpws,t	Tt				Mds	ρw,t	Mpw,t	Mp	Vp	Gt	Tb-K	G20°C
				TEST PARAMETERS													CALIBRATION PARAMETERS		SPECIFIC GRAVITY		
39960001	SB-6	10.0'-12.0'	SB-6	1	- #4	73.6	C	161.09	691.2	21	817	151.11	101.04	50.07	0.9980	659.52	161.08	499.44	2.723	0.9998	2.72

Input Validation: AR

Reviewed By: ALO

Date: 4/2/2018

PARTICLE-SIZE DISTRIBUTION OF SOILS USING SIEVE ANALYSIS- ASTM D6913-17

Client	Mountain Research, LLC	Boring	SB-6
Client Project	24948 - 4932.18.01	Depth	10.0'-12.0'
Project No.	39960	Sample	SB-6
		Lab Sample	39960001

Sample Color: **BROWN**
USCS Group Name: **CLAYEY SAND WITH GRAVEL**
USCS Group Symbol: **sc** USDA: **NA** AASHTO: **NA**

MECHANICAL SIEVE

Total Sample	
Total Sample Wet Wt, gm (-3")	467
Sample Split on Sieve	No. 4
Coarse Washed Dry Sample, gm	114
Wet Wt Passing Split, gm	353
Dry Wt. Passing Split, gm	316
Total Sample Dry Wt, gm	430

Split Sample - Passing No. 4	
Tare No.	2001
Tare + WS., gm	250.2
Tare + DS., gm	240.3
Tare, gm	154.93
Water Content of Split Sample	**11.6%**
Wt. of DS., gm	85.37
Wt. of +#200 Sample, gm	51.61

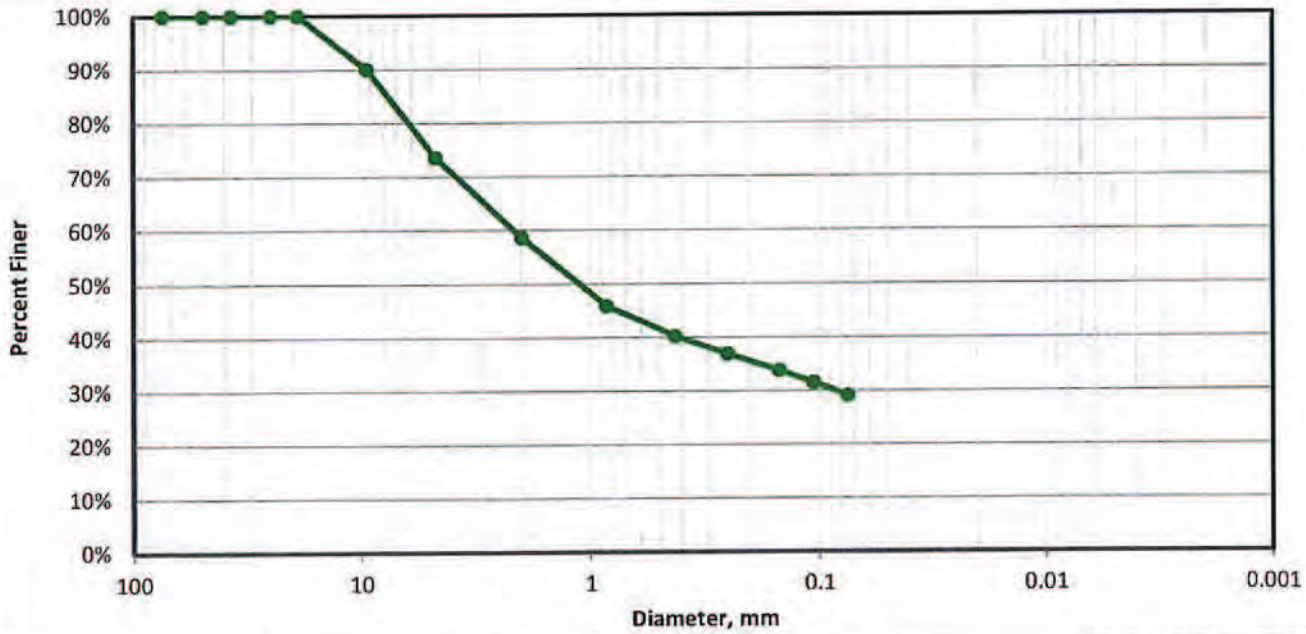
Sieve Size	Nominal Opening, mm	Dry Wt, gm	Split Normalized % Retained	Split Normalized % Finer	Project Specifications
3"	75	0	0.0%	100.0%	
2"	50	0	0.0%	100.0%	
1-1/2"	37.5	0	0.0%	100.0%	
1"	25	0	0.0%	100.0%	
3/4"	19	0	0.0%	100.0%	
3/8"	9.5	42.76	9.9%	90.1%	
No. 4	4.75	70.78	16.5%	73.6%	
No. 10	2	17.43	15.0%	58.6%	
No. 20	0.85	14.75	12.7%	45.9%	
No. 40	0.425	6.54	5.6%	40.2%	
No. 60	0.25	3.86	3.3%	36.9%	
No. 100	0.15	3.61	3.1%	33.8%	
No. 140	0.106	2.6	2.2%	31.5%	
No. 200	0.075	2.82	2.4%	29.1%	

USCS SOIL CLASSIFICATION

Corrected For 100% Passing a 3" Sieve

% Gravel (-3" & +#4)	**26.4**	Silt=NA Clay=NA	
Coarse=0; Fine=26.4		D60, mm	NA
% Sand (-#4 & +#200)	**44.5**	D30, mm	NA
Coarse=15; Medium=18.4; Fine=11.1		D10, mm	NA
% Fines (-#200)	**29.1**	Cc	NA
% Plus #200 (-3")	**70.9**	Cu	NA

USCS Description			
CLAYEY SAND WITH GRAVEL			
USCS Group Symbol	Atterberg Limits Group Symbol		
sc	cl - Lean Clay (assumed)		
Auxiliary Information	Wt Ret, gm	% Retained	% Finer
12" Sieve - 300 mm	0	0.0	100.0
6" Sieve - 150 mm	0	0.0	100.0
3" Sieve - 75 mm	0	0.0	100.0



Input Validation AR Reviewed By: ALO Date Tested 4/5/2018

APPENDIX J

SLUG TEST METHOD AND DESCRIPTION

Slug Test Analysis Methodology

The most practical method for determining aquifer characteristics (e.g. hydraulic conductivity, and transmissivity) utilizing small diameter monitoring points is a aquifer slug test. Transmissivity (T) is a term that describes the velocity of a fluid traveling through an aquifer unit or it is the ability of the aquifer's subsurface material to transmit fluid (hydraulic conductivity - K) at a hydraulic gradient (I). When water is displaced in well during a slug test, water is removed and/or added from the aquifer surrounding the well and consequently the water table is lowered or raised over a given area. The displacement within the area of influence is the distance the water level is lowered and or raised from the initial static level. By collecting this displacement data during a slug test via a data logger system and/or manually with a water level indicator, the data can be used to generate displacement versus time best-fit line to estimate the variation of displacement with time near the well. This best fit line will describe the ability of the ground water to permeate through the aquifer.

Bouwer and Rice Method for Slug Tests

The Bouwer and Rice equation allows for the determination of the aquifer characteristics based on the following assumptions:

- The aquifer is homogenous, isotropic, of uniform thickness and infinite aerial extent.
- The water level surface is horizontal.
- The well is displaced at a constant rate.The well partially penetrates the aquifer and flow is horizontal within the aquifer.
- Water removed and/or added is performed instantaneously with a declining and/or ascending head.

To utilize the Bouwer and Rice equation: K = (rc2ln (Re/rw)/2Le x 1/t x ln yo/yt

Where:

K	=	Hydraulic Conductivity
R_c	=	radius of casing
Re	=	effective radial distance over which y is dissipated
r_w	=	radial distance of undisturbed portion of aquifer from centerline
L_e	=	length of screened area
t	=	time value
y	=	vertical difference between water level inside well and static water table outside well
y_o	=	y at time zero
y_t	=	y at time t

Best-fit time-displacement line is superimposed on the time versus displacement semi log graphs. A point is selected to determine coordinates of match points of y and t (yo at t = 0 and yt at t), a number of y and t measurements can be taken and (ln (yo/yt)/t is determined as the slope of the best-fitting line through the y versus t points on semi-logarithmic paper. The straight line through the data points can also be used to select two values of y along with the time interval t between them for substitution into the equation.

Aquifer Hydraulic Values from Slug Tests

WOODLAND FOOD AND FUEL, INC.
WOODLAND, PA

MR Project No. 4923.18.01

Summary of Aquifer Test Responses and Analyses

Unconfined Shallow Aquifer

Test Type	Well	Test Phase	Analysis Method	Transmissivity (ft2/d)	b (ft)	K (ft/d)	ln(K)
Slug	MW-2	Falling Head	Bouwer & Rice	1.296	9.50	0.136	-1.992164

Mean ln (hydraulic conductivity) =			**-1.992**
Geometric mean hydraulic conductivity (K) ft/day =			**0.136**
Average hydraulic conductivity (K) ft/day =		**0.136**	
Average saturated aquifer thickness(b) =	**9.500**		
Average Transmissivity (T = Kb) (ft²/day) =	**1.30**		

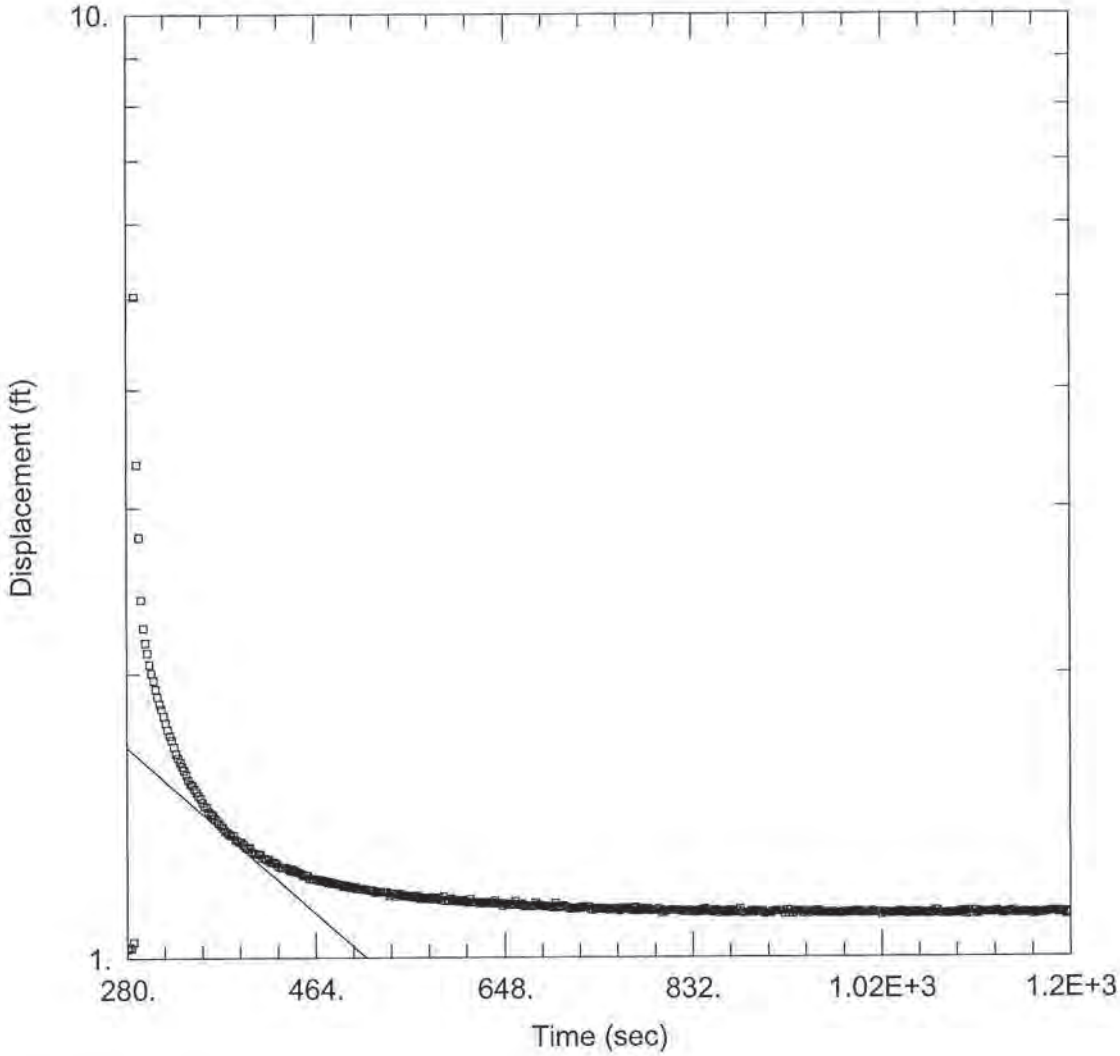
Confined Deep Aquifer

Test Type	Well	Test Phase	Analysis Method	Transmissivity (ft2/d)	b (ft)	K (ft/d)	ln(K)
Slug	MW-3BR	Rising Head	Bouwer & Rice	0.422	6.50	0.065	-2.7346
	MW-4BR	Rising Head	Bouwer & Rice	1.679	12.00	0.140	-1.966827
		Falling Head	Bouwer & Rice	0.608	12.00	0.051	-2.982027

Mean ln (hydraulic conductivity) =			**-2.561**
Geometric mean hydraulic conductivity (K) ft/day =			**0.077**
Average hydraulic conductivity (K) ft/day =		**0.085**	
Average saturated aquifer thickness(b) =	**10.167**		
Average Transmissivity (T = Kb) (ft²/day) =	**0.90**		

Created By: _____
Checked By: _____

b - Saturated Aquifer Thickness
K - Hydraulic Conductivity



MW-2_FH

Data Set: \...\MW-2_FH.aqt
Date: 12/19/18 Time: 17:26:09

PROJECT INFORMATION

Company: Mountain Research
Client: Woodland Food and Fuel
Project: 4923.18.01
Location: Woodland
Test Well: MW-2
Test Date: 11/27/18

AQUIFER DATA

Saturated Thickness: 9.5 ft Anisotropy Ratio (Kz/Kr): 1.

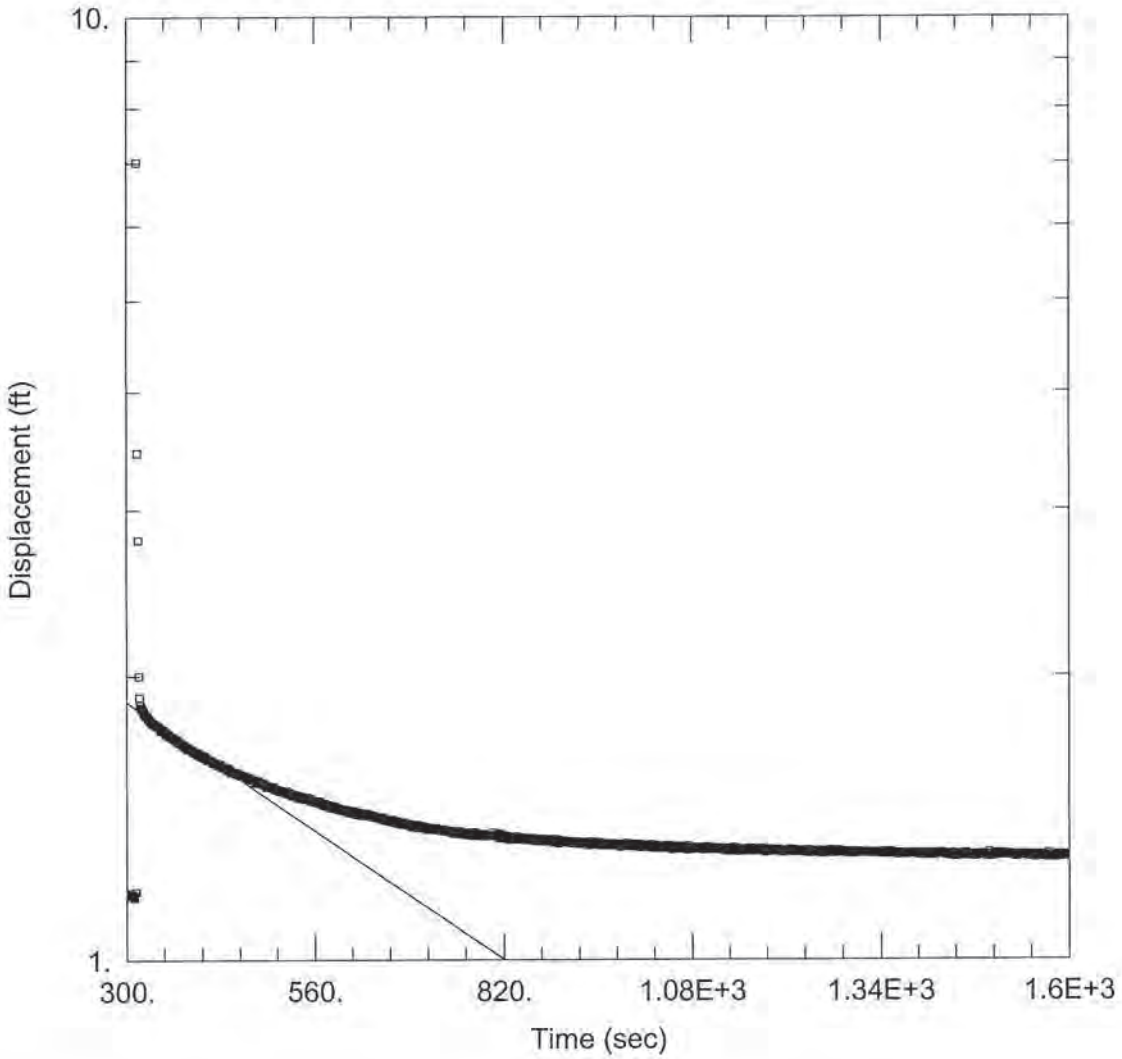
WELL DATA (MW-2)

Initial Displacement: 3.98 ft
Total Well Penetration Depth: 4.5 ft
Casing Radius: 0.083 ft
Static Water Column Height: 4.5 ft
Screen Length: 20. ft
Wellbore Radius: 0.146 ft
Gravel Pack Porosity: 0.28

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.1364 ft/day y0 = 3.1 ft



MW-3BR_RH

Data Set: \...\MW-3BR_RH.aqt
Date: 12/19/18 Time: 15:18:19

PROJECT INFORMATION

Company: Mountain Research
Client: Woodland Food and Fuel
Project: 4923.18.01
Location: Woodland
Test Well: MW-3BR
Test Date: 11/27/18

AQUIFER DATA

Saturated Thickness: 6.5 ft Anisotropy Ratio (Kz/Kr): 1.

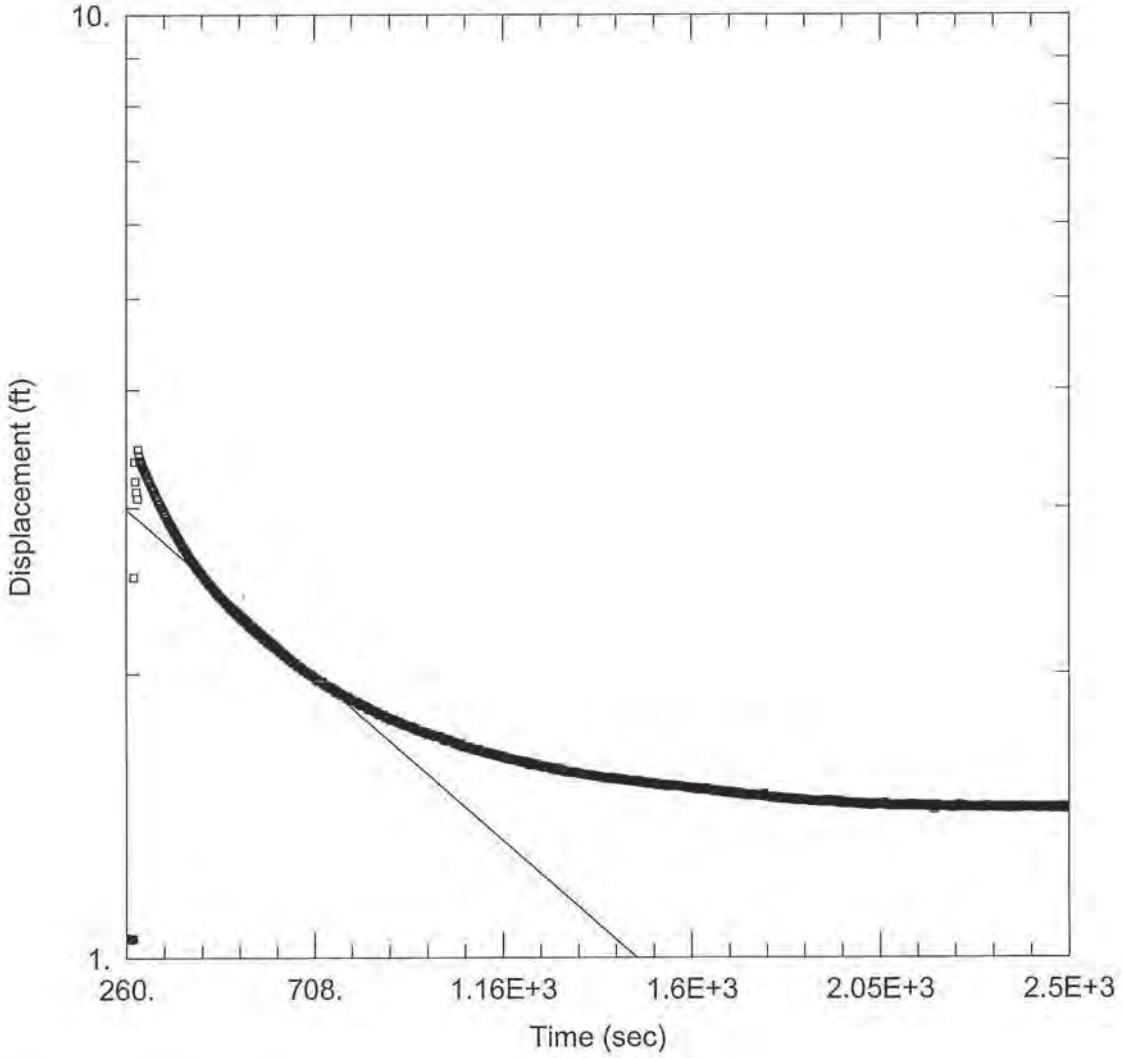
WELL DATA (MW-3BR)

Initial Displacement: 5.836 ft
Total Well Penetration Depth: 1.5 ft
Casing Radius: 0.083 ft
Static Water Column Height: 1.5 ft
Screen Length: 10. ft
Wellbore Radius: 0.146 ft

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.06492 ft/day
y0 = 2.701 ft



MW-4BR_FH

Data Set: \...\MW-4BR_FH.aqt
Date: 12/19/18 Time: 15:18:39

PROJECT INFORMATION

Company: Mountain Research
Client: Woodland Food and Fuel
Project: 4923.18.01
Location: Woodland
Test Well: MW-4BR
Test Date: 11/27/18

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

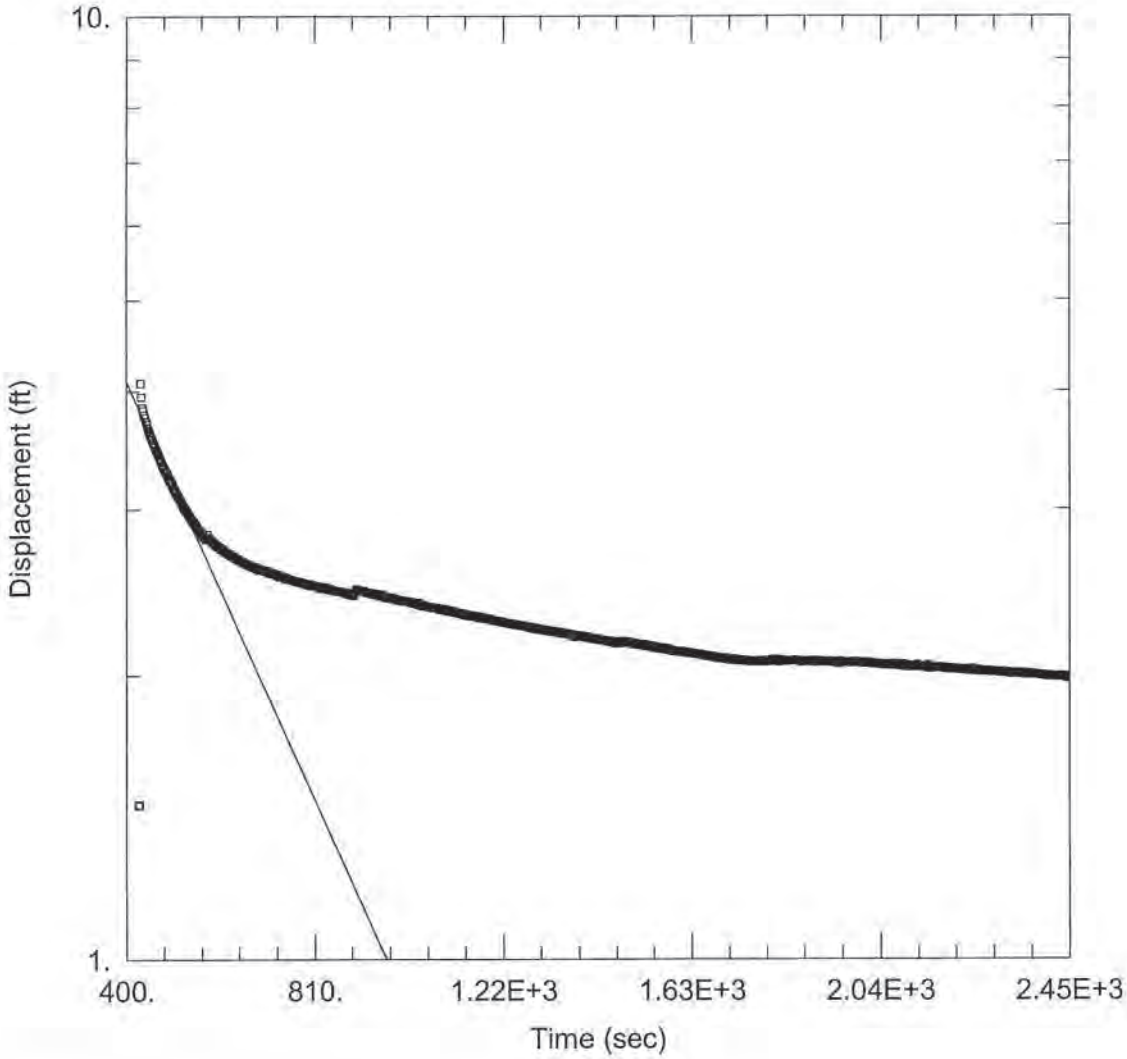
WELL DATA (MW-4BR)

Initial Displacement: 2.419 ft
Total Well Penetration Depth: 7. ft
Casing Radius: 0.083 ft
Static Water Column Height: 7. ft
Screen Length: 15. ft
Wellbore Radius: 0.146 ft

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.05069 ft/day
y0 = 3.778 ft



MW-4BR_RH

Data Set: \...\MW-4BR_RH.aqt
Date: 12/19/18 Time: 15:19:04

PROJECT INFORMATION

Company: Mountain Research
Client: Woodland Food and Fuel
Project: 4923.18.01
Location: Woodland
Test Well: MW-4BR
Test Date: 11/27/18

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-4BR)

Initial Displacement: 2.831 ft
Total Well Penetration Depth: 7. ft
Casing Radius: 0.083 ft
Static Water Column Height: 7. ft
Screen Length: 15. ft
Wellbore Radius: 0.146 ft

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.1399 ft/day
y0 = 11.1 ft

APPENDIX K

UST & UTILITY SURVEY

March 9, 2018

Michael R. Crowe, P.G.
Mountain Research, LLC
825 25th Street
Altoona, Pennsylvania 16601
(814) 949-2034

RE: Underground Storage Tank and Utility Survey
Woodland Food & Fuel
Route 322 & 970
Woodland, Pennsylvania
THG Project No. 213-6767

Dear Mr. Crowe:

THG Geophysics, Ltd. (THG) conducted a geophysical investigation to identify subsurface utilities and potential underground storage tanks (UST) at the former Woodland Food & Fuel property located in Woodland, Pennsylvania on March 2, 2018 (Figure 1). THG utilized time-domain electromagnetic (TDEM) terrain conductivity mapping, ground penetrating radar (GPR), frequency induction electromagnetics, 60 Hz locators and radio frequency detectors to image the subsurface of the 0.6-acre area of interest at the property.

The frequency induction electromagnetic line locator works both actively and passively. In an active application, a transmitter can be connected to metallic utilities, or utilities with a tracer wire, and induce a unique frequency that can then be traced with the receiver. In passive application, the receiver is set to a unique frequency and searches for that frequency carried by grounded metallic utilities. Radio frequency detectors measure stray frequencies that may be carried by grounded conductors, and the 60 Hz line locator detects AC current flow. These data were analyzed real-time in the field and the location of subsurface utilities were identified on the ground surface using marking paint and/or flags and recorded with a Trimble Geo-7X global positioning system (Figure 2).

TDEM terrain conductivity mapping detects metal by utilizing a transmitter antenna that emits a pulsed electromagnetic signal and a receiver that measures the slow decay of energy from excited ferrous and non-ferrous sources (in milli-Volts). A Geonics EM-61-MK2A integrated with a Trimble Geo7X global positioning system was used to complete this survey (Figure 3).

GPR data were collected over the entire area of interest, targeting anomalous areas exhibited in the TDEM data, as well as helping to image any subsurface utilities. The GPR unit operates by transmitting radar waves (microwave band) downward from a transmitting antenna and receives the reflected energy at the receiving antenna. The reflected signal is output digitally and displayed as a radargram. Any contrast in dielectric properties show up as reflecting boundaries. Subsurface soils containing electrically conductive materials (i.e. clays, groundwater, reinforcement bars) rapidly attenuate the radar signal and, therefore, decrease penetration depth. A Sensors and Software Noggin GPR equipped with a 250 MHz antenna was used to image a depth range of approximately 2-6 ft below grade in areas not containing reinforced concrete.

Summary:

The property located at intersection of Routh 322 and 970 in Woodland, Pennsylvania, was surveyed for the presence of USTs and subsurface utilities using TDEM terrain conductivity mapping, GPR, frequency induction electromagnetic techniques, radio frequency locators and 60 Hz locators on March 2, 2018 (Figure 1). The survey area included the paved lot on the East side of the fuel island

of the former Woodland Food & Fuel building and in the grassy hillside behind the building. The survey area did not include the section of paved lot on the West side of the fuel island and building.

Numerous utilities were located within the survey area including numerous electric utilities, a water utility, sanitary sewer utilities, a storm water utility, a propane utility, and unknown utilities/linear features (Figure 2). Several of the unknown utilities may be fuel and/or electric lines as they extend from the existing underground fuel tanks to the fuel pumps. It should be noted that the location of all fuel lines could not be delineated by utility locating techniques at the site due to fuel line composition or the presence of reinforced concrete. The sanitary line to the south of the building is believed to extend to the east of the sanitary cleanout per conversation with the property owner. It was not possible to verify the location of the sanitary utility past the clean out. Seven boring locations were cleared of subsurface utilities (SB-1/MW-1, SB-2/MW-2, SB-3/MW-3, SB-4/MW-4, SB-8, SB-7, SB-8, SB-9). Two borings were located on a steep inaccessible hillside and could not be cleared (SB-5/MW-5, SB-6). Onsite Mountain Research personnel indicated that these two borings would be re-located to a location clear of subsurface utilities during drilling efforts.

TDEM data were collected over the area of interest. The TDEM data was of good quality but was heavily impacted in some areas by the presence of vehicles parked on the lot. Three anomalies were identified in the FDEM data. All three anomalies were imaged with GPR, and did not display the typical signature associated with a UST. Anomaly 1 and Anomaly 2 are likely associated with two isolated slabs of reinforced concrete. Anomaly 3 may be related to buried debris, but does not have the typical signature of a UST. Four active fuel storage tanks were identified on site with both TDEM and GPR (Figure 3).

The locations of the findings over the area of interest were marked in the field using survey paint and recorded using a Trimble Geo7X Global Positioning System. Should you have any questions or require additional information, please contact our office at (724) 325-3996 or via e-mail hlk@thggeophysics.com.

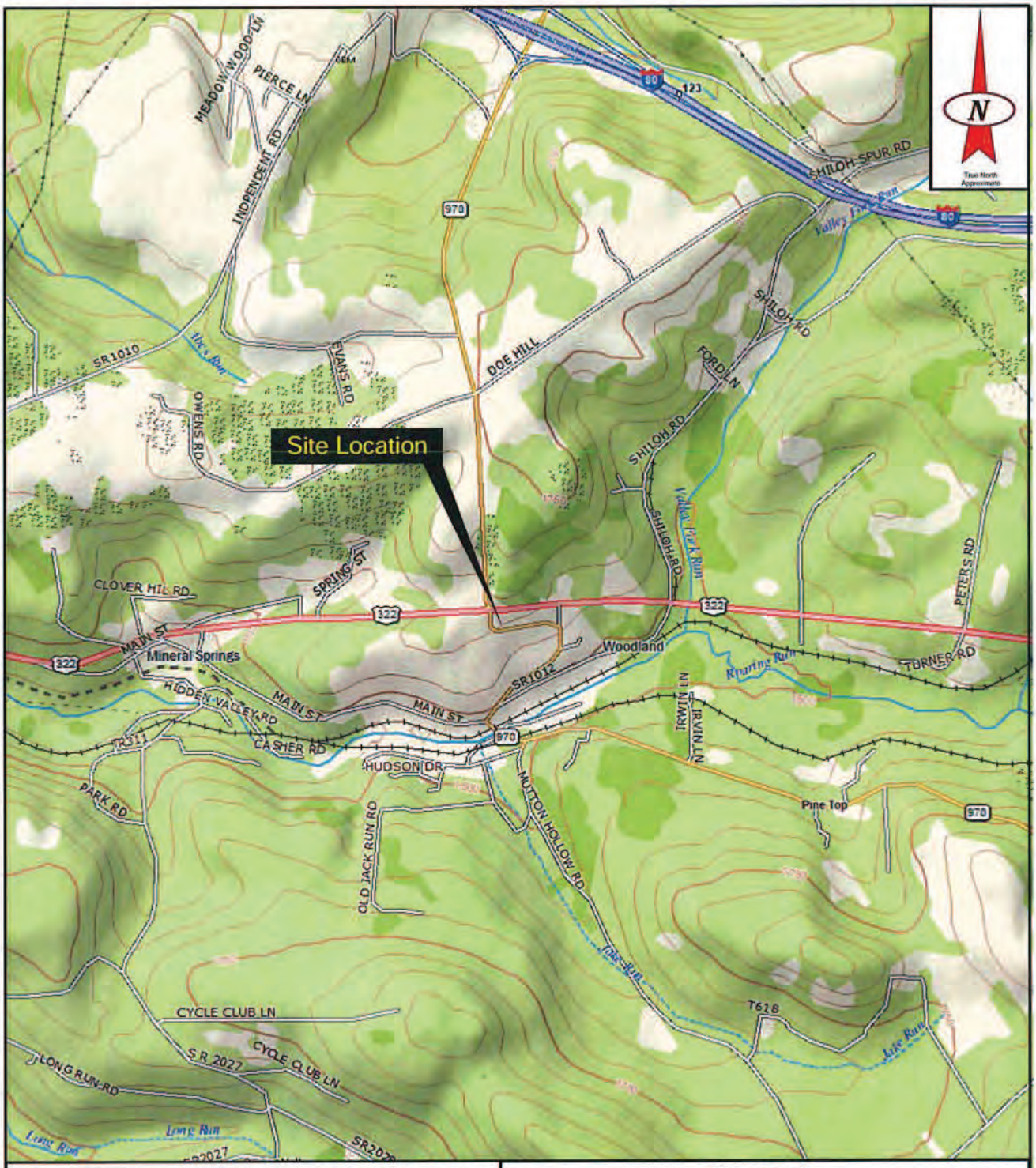
Respectfully,
THG Geophysics, Ltd.

Heather L Krivos

Heather Krivos
Senior Geophysicist

Enclosures

Geophysical investigations are a non-invasive method of interpreting physical properties of the shallow earth using electrical, electromagnetic, or mechanical energy. This document contains geophysical interpretations of responses to induced or real-world phenomena. As such, the measured phenomenon may be impacted by variables not readily identified in the field that can result in a false-positive and/or false-negative interpretation. THG makes no representations or warranties as to the accuracy of the interpretations.



THG GEOPHYSICS Ltd

4280 Old William Penn Hwy
Murrysville, Pennsylvania 15668
(724) 325-3996 Fax: (724) 733-7901

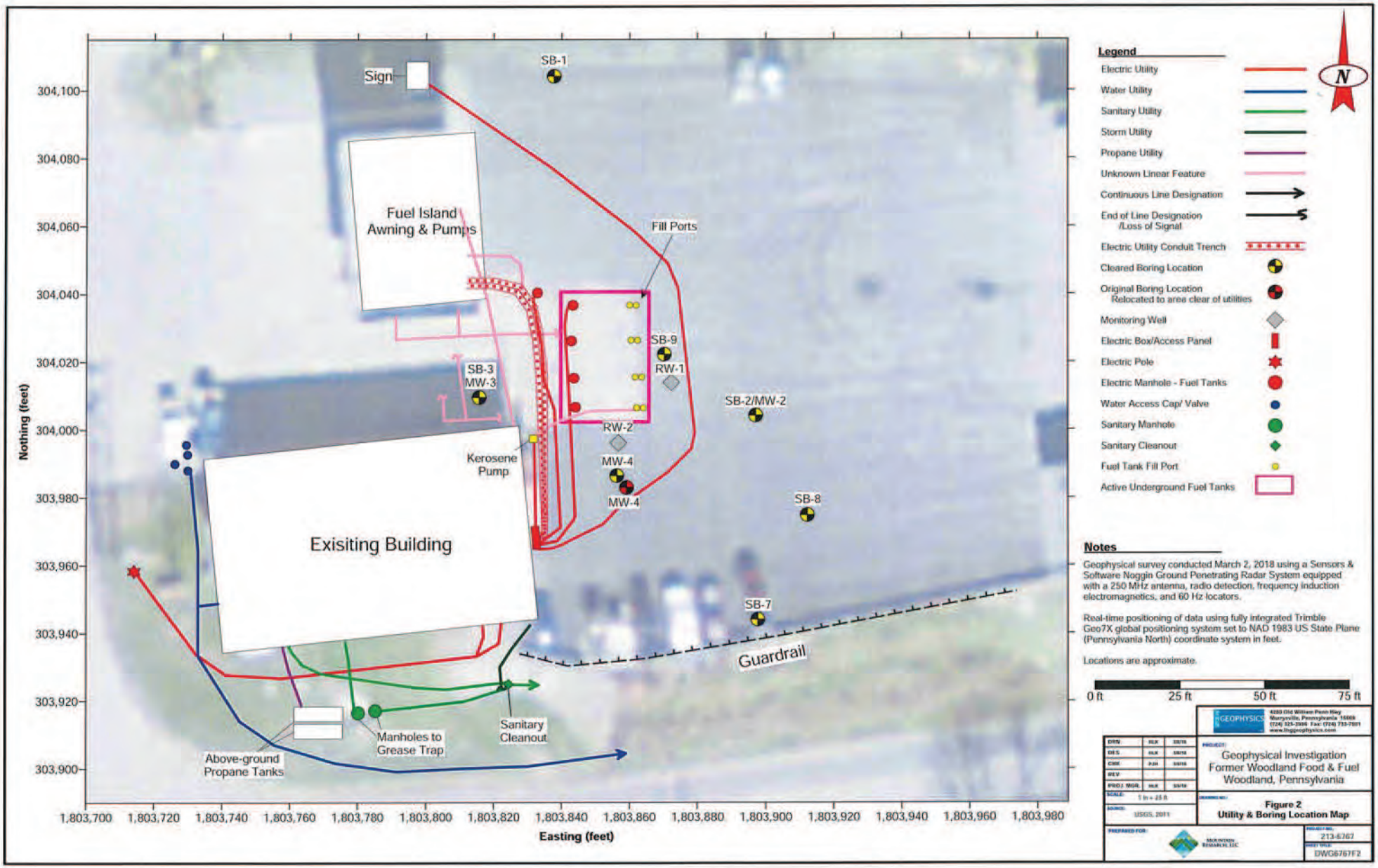
www.thggeophysics.com

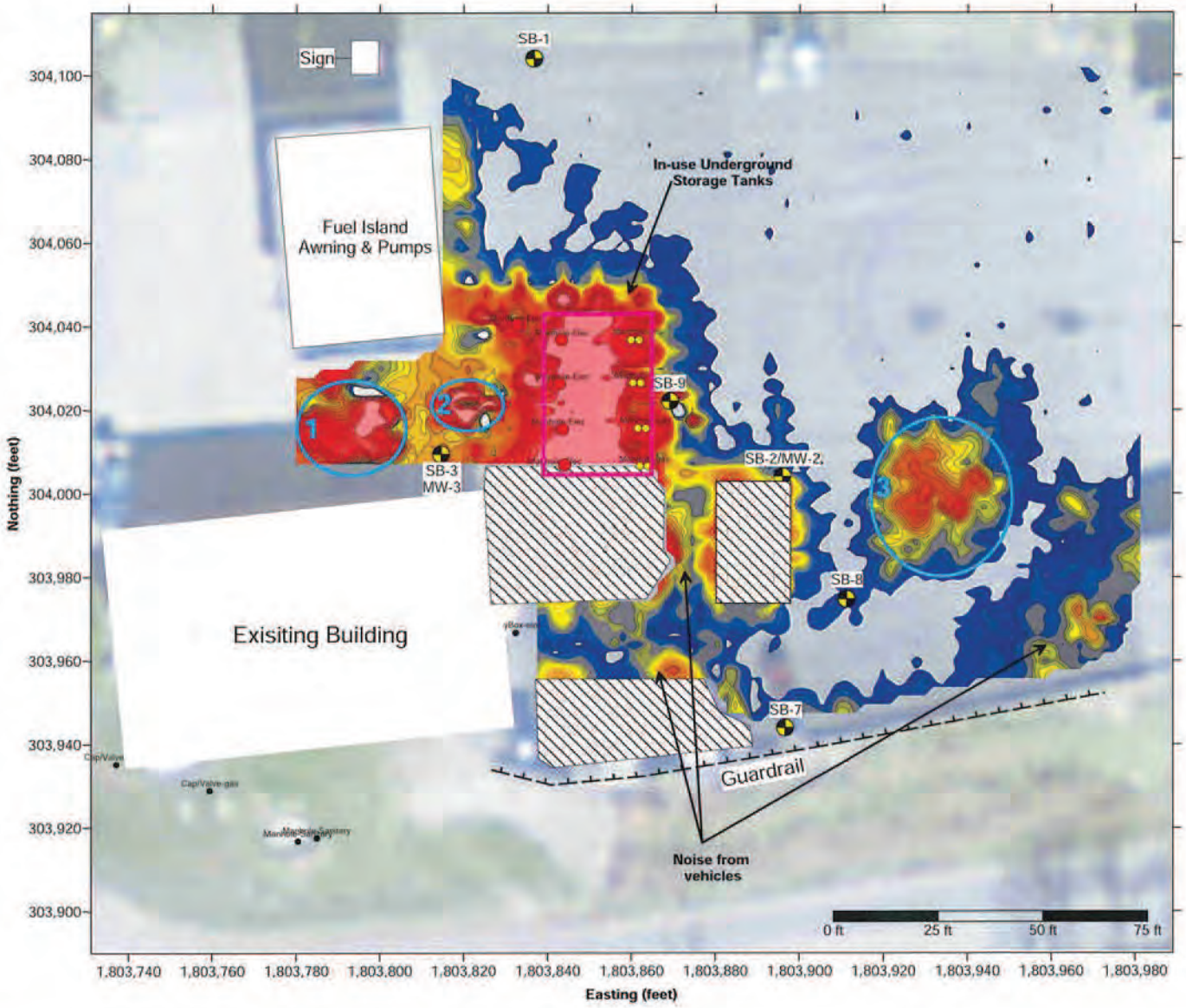
0 ft 1000 ft 2000 ft 3000 ft 4000 ft 5000 ft

Figure 1
Site Location Map

Proposed Geophysical Investigation
Former Woodland Food & Fuel
Woodland, Pennsylvania

SCALE: 1:24,000	PROJECT NO.: 213-6767	DRAWING NO.: DWG6767F1
DATE : 03/06/2018		
DRAWN BY: ARB	SOURCE: 1995 Wallaceton (PA) USGS 7.5 Minute Topographic Quadrangle	
CHECKED BY: HLK		


Sign
SB-1
Fuel Island
Awning & Pumps
Fill Ports
SB-9
RW-1
SB-3
MW-3
SB-2/MW-2
RW-2
Kerosene
Pump
MW-4
MW-4
SB-8
Exisiting Building
SB-7
Guardrail
Sanitary
Cleanout
Manholes to
Grease Trap
Above-ground
Propane Tanks
Nothing (feet)
304,100
304,080
304,060
304,040
304,020
304,000
303,980
303,960
303,940
303,920
303,900
1,803,700
1,803,720
1,803,740
1,803,760
1,803,780
1,803,800
1,803,820
1,803,840
1,803,860
1,803,880
1,803,900
1,803,920
1,803,940
1,803,960
1,803,980
Easting (feet)
Legend
Electric Utility
Water Utility
Sanitary Utility
Storm Utility
Propane Utility
Unknown Linear Feature
Continuous Line Designation
End of Line Designation
/Loss of Signal
Electric Utility Conduit Trench
Cleared Boring Location
Original Boring Location
Relocated to area clear of utilities
Monitoring Well
Electric Box/Access Panel
Electric Pole
Electric Manhole - Fuel Tanks
Water Access Cap/ Valve
Sanitary Manhole
Sanitary Cleanout
Fuel Tank Fill Port
Active Underground Fuel Tanks
N
Notes
Geophysical survey conducted March 2, 2018 using a Sensors & Software Noggin Ground Penetrating Radar System equipped with a 250 MHz antenna, radio detection, frequency induction electromagnetics, and 60 Hz locators.
Real-time positioning of data using fully integrated Trimble Geo7X global positioning system set to NAD 1983 US State Plane (Pennsylvania North) coordinate system in feet.
Locations are approximate.
0 ft
25 ft
50 ft
75 ft
HGEOPHYSICS
4220 Old William Penn Hwy
Murrysville, Pennsylvania 15668
(724) 325-2966 Fax: (724) 733-7801
www.hggeophysics.com
DRN
DES
CHK
REV
PROJ. MGR.
SCALE: 1 in = 25 ft
SOURCE: USGS, 2011
PROJECT:
Geophysical Investigation
Former Woodland Food & Fuel
Woodland, Pennsylvania
Figure 2
Utility & Boring Location Map
PREPARED FOR:
MOUNTAIN RESEARCH, LLC
PROJECT NO.
213-6767
SHEET TITLE
DWG6767F2



Legend

- EM Anomaly
- Active Underground Fuel Tanks
- Area Not Surveyed (surface debris/ vehicles)
- Cleared Boring Location
- Original Boring Location Relocated to area clear of utilities

Color Scale (mS/m)

Background | Metal

0 4 10 20 25 32 40 50 63 79 100 130 160 200 250 320 400 500 650 800

Notes

Geophysical survey conducted March 2, 2018 using Geonics EM-61 time-domain electromagnetic conductivity meter and Sensors and Software GPR system GPR system equipped with a 250 MHz GPR.

Real-time positioning of data using fully integrated Trimble Geo7X global positioning system set to NAD 1983 US State Plane (Pennsylvania North) coordinate system in feet.

Locations are approximate.

GEOPHYSICS
4280 Old William Penn Hwy
Murrysville, Pennsylvania 15668
(724) 325-2956 Fax: (724) 733-7001
www.tlggeophysics.com

DRN	JMB	3/2/18
DES	JMB	3/2/18
CHK	KJH	3/2/18
REV		
PROJ MGR.	MLK	3/9/18

SCALE: 1 in = 25 ft

SOURCE: USGS, 2011

PROJECT: Geophysical Investigation Former Woodland Food & Fuel Woodland, Pennsylvania

DRAWING NO.: **Figure 3**
Differential Peak Response Map

PREPARED FOR: Mountain Research, LLC

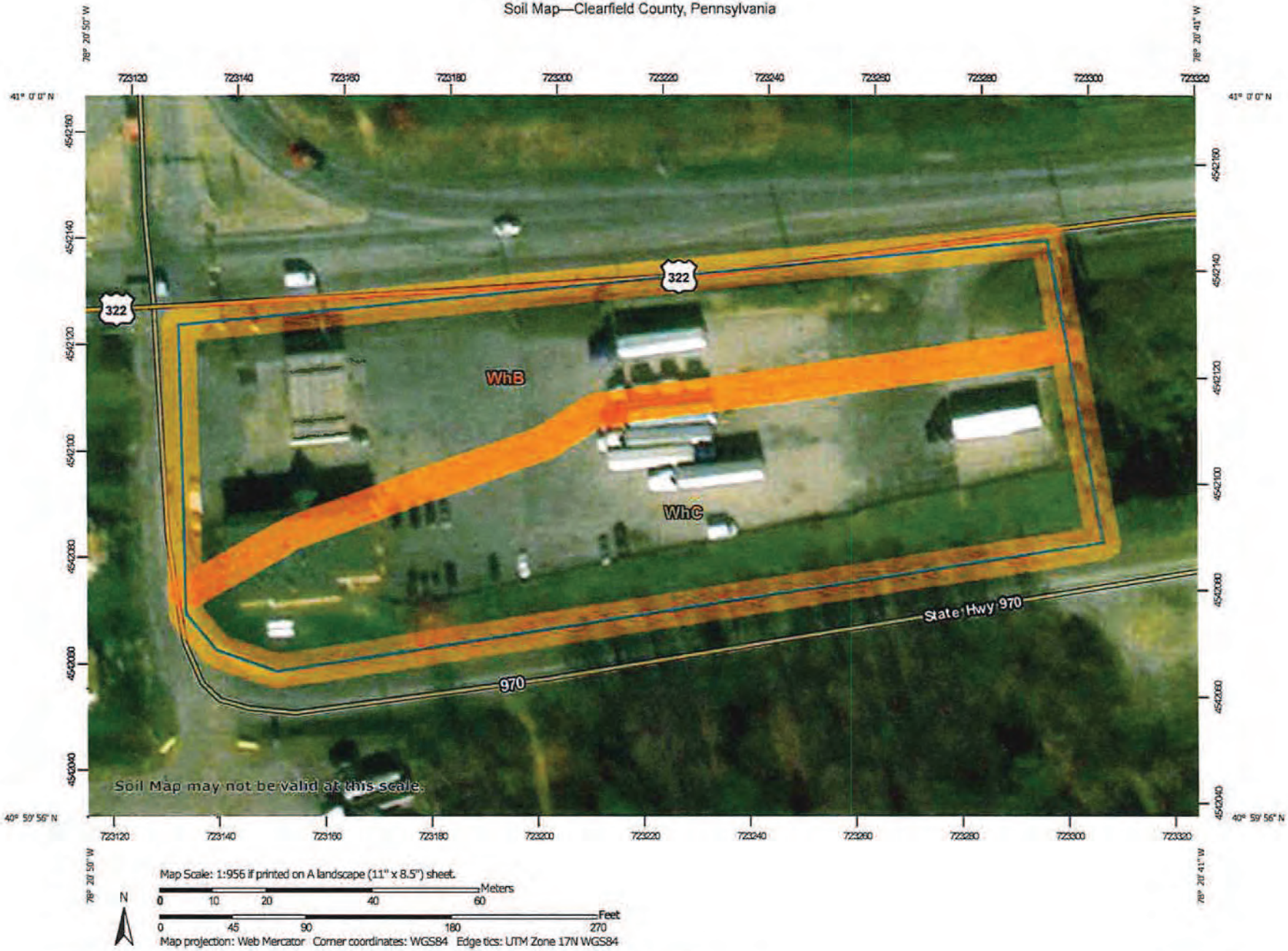
PROJECT NO.: 213-6767

DRAWING NO.: DWG6767F3

APPENDIX L

SOIL SURVEY

Soil Map—Clearfield County, Pennsylvania



MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Clearfield County, Pennsylvania
Survey Area Data: Version 14, Nov 27, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 29, 2011—Nov 14, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
WhB	Wharton silt loam, 3 to 8 percent slopes	1.2	45.5%
WhC	Wharton silt loam, 8 to 15 percent slopes	1.4	54.5%
Totals for Area of Interest		**2.6**	**100.0%**

APPENDIX M

GEOPHYSICAL SURVEY REPORT

October 10, 2018

Jason Haney
Mountain Research
825 25th Street
Altoona, Pennsylvania 16601
(814) 949-2034

RE: Geophysical Survey
Gio's BBQ
Route 322 & 970
Woodland, Pennsylvania
THG Project No. 213-6954

Dear Mr. Haney:

THG Geophysics, Ltd. (THG) conducted a geophysical investigation to identify potential fractures that could be dominating preferential pathways of groundwater flow at the Gio's BBQ property located in Woodland, Pennsylvania on September 18-19, 2018 (Figure 1). THG performed an electrical resistivity imaging and a very-low frequency electromagnetic (VLF) survey to image potential fractures in the subsurface of the 0.6-acre area of interest at the property.

Five electrical imaging profiles and five VLF profiles were acquired across and adjacent to the gas station property (Figure 2).

Electrical Imaging Survey

Electrical resistance is based upon Ohm's Law, where resistance is equal to the difference between the current flow and voltage differential. However, resistivity depends upon the bulk property and geometry of the material. Consequently, resistivity is measured in Ohm-meters. Currents are carried through earth materials by motion of the ions in connate water. Ions in connate water come from the dissociation of salts and provide for the flow of electric current. Further, resistivity decreases in water-bearing rocks and earth materials with increasing:

a. Fractional volume of the rock occupied by groundwater;
b. Total dissolved solid and chloride content of the groundwater;
c. Permeability of the pore spaces; and,
d. Temperature.

Materials with minimal primary pore space (i.e., limestone) or that lack groundwater in the pore spaces will exhibit high resistivity values (Mooney, 1980). Highly porous, moist or saturated soil, such as fat clays, will exhibit very low resistivity values. Most earthen materials show medium to low resistivity.

In homogeneous ground, the apparent resistivity is the true ground resistivity; however, in heterogeneous ground, the apparent resistivity represents a weighted average of all formations through which the current passes. Many electrode placements (arrays) have been proposed (for examples, see Reynolds, 1997); however, the Schlumberger array has proven to be an effective configuration for imaging voids in shallow bedrock settings.

A forward modeling subroutine was used to calculate the apparent resistivity values using the EarthImager program (AGI, 2008, and Loke 1998). This program is based upon the smoothness-

constrained least-squares method (deGroot-Hedlin and Constable, 1990; Loke and Barker, 1996). The EarthImager program divides the subsurface 2-D space into a number of rectangular blocks. Resistivities of each block are then calculated to produce an apparent resistivity pseudosection. The pseudosection is compared to the actual measurements for consistency. A measure of the difference is given by the root-mean-squared error.

Five EI profiles were collected using a GF Instruments ARES continuous vertical electric sounder (Figure 2). EI Profiles 1 and 2 were acquired to image the primary area of concern. EI Profile 1, oriented northeast to southwest, is 226 feet long (Figure 3). EI Profile 2, oriented northwest to southeast, is 226 feet long (Figure 4). These profiles intersect east of MW-2. EI Profiles 3, 4 & 5 were acquired to assess the perimeter of the project site. EI Profile 3, oriented north to south, is 226 feet long and was acquired along the western site boundary (Figure 5). EI Profile 4, oriented west to east, is 305 feet long and was acquired along the northern site boundary (Figure 6). EI Profile 5, oriented west to east, is 305 feet long and was acquired along the southern site boundary (Figure 7).

All profiles were collected using a 3-meter Schlumberger array. Due to the congestion of subsurface utilities and subsurface structures, the EI data quality was good to poor. The presence of subsurface utilities had a strong negative impact on the data quality of Profiles 2 and 3. Locational data were recorded using a Trimble Geo7X global positioning system.

Very Low Frequency Electromagnetic Survey

The VLF method can be used to find steeply dipping structures that differ from their surroundings with regard to electrical resistance. VLF transmitters, the nearest located in Cutler, Maine, send out low frequency military radio signals (15-30 kHz). When the low frequency field emitted by one of the transmitters strikes an anomaly, secondary currents are created that can be read and recorded by the WADI VLF instrument.

When a field emitted by a transmitter strikes a body having low electrical resistance, secondary circuits are created in the body. Fraser filtering, a numeric algorithm is performed on the real part of the VLF data to enhance the anomaly indication. Fraser filtering is based upon the work of Karous and Hjelt (1983):

$$F_o = -0.102\,H_{-3} + 0.059\,H_{-2} - 0.561\,H_{-1} + H_0 + 0.561\,H_1 - 0.059\,H_2 + 0.102\,H_3$$

Where; F_0 is the filtered result and H-3 to H3 are the original VLF data.

Five VLF profiles were collected using an ABEM WADI instrument (Figure 2). VLF Profiles 1 3, & 5 were acquired south to north to image the width of the project site (Figure 8). VLF Profiles 2 & 4 were acquired west to east along the north and south perimeter (Figure 9).

In addition to fractures, anomalies can be generated by cultural sources. For example, cables, metal pipes, and electrical fences can also cause very strong anomalies. Due to the congestion of subsurface utilities and subsurface structures, the VLF data quality is poor.

Summary:

Numerous anomalies were identified in the comprehensive datasets. Potential fractures are identified in EI Profiles 1 & 4 (Figures 3 & 6). EI Profile 2 is dominated by low resistivity subsurface that could be due to previous excavations, but also depicts some indications of fracturing (Figure 4). EI Profile 3

appears to be impacted by subsurface water utilities (Figure 5). As expected, the VLF data are strongly dominated by cultural noise, but some interpretable fractures are identified on VLF Profiles 2 & 4 (Figures 8-9). The compilation of these interpretations yielded three northeast trending fractures (Figure 10).

Should you have any questions or require additional information, please contact our office at (724) 325-3996 or via e-mail ksm@thggeophysics.com.

Respectfully,
THG Geophysics, Ltd.

Kate McKinley, PG
Senior Geophysicist

Enclosures

Geophysical investigations are a non-invasive method of interpreting physical properties of the shallow earth using electrical, electromagnetic, or mechanical energy. This document contains geophysical interpretations of responses to induced or real-world phenomena. As such, the measured phenomenon may be impacted by variables not readily identified in the field that can result in a false-positive and/or false-negative interpretation. THG makes no representations or warranties as to the accuracy of the interpretations.

References

AGI, 2002. EarthImager Program. American Geosciences Inc., Austin Texas.

deGroot-Hedlin, C. and Constable, S., 1990, Occam's inversion to generate smooth, two-dimensional models from magnetotelluric data. Geophysics, V. 55, 1613-1624.

Karous and Hjelt (1983) Linear filtering of VLF dip-angle measurements: Geophysical Prospecting, v. 31, p. 782-794.

Loke, M. N., and Barker, R. D., 1996, Rapid least-squares inversion of apparent resistivity pseudosection by quasi-Newton method. Geophysical Prospecting, V. 44, 131-152.

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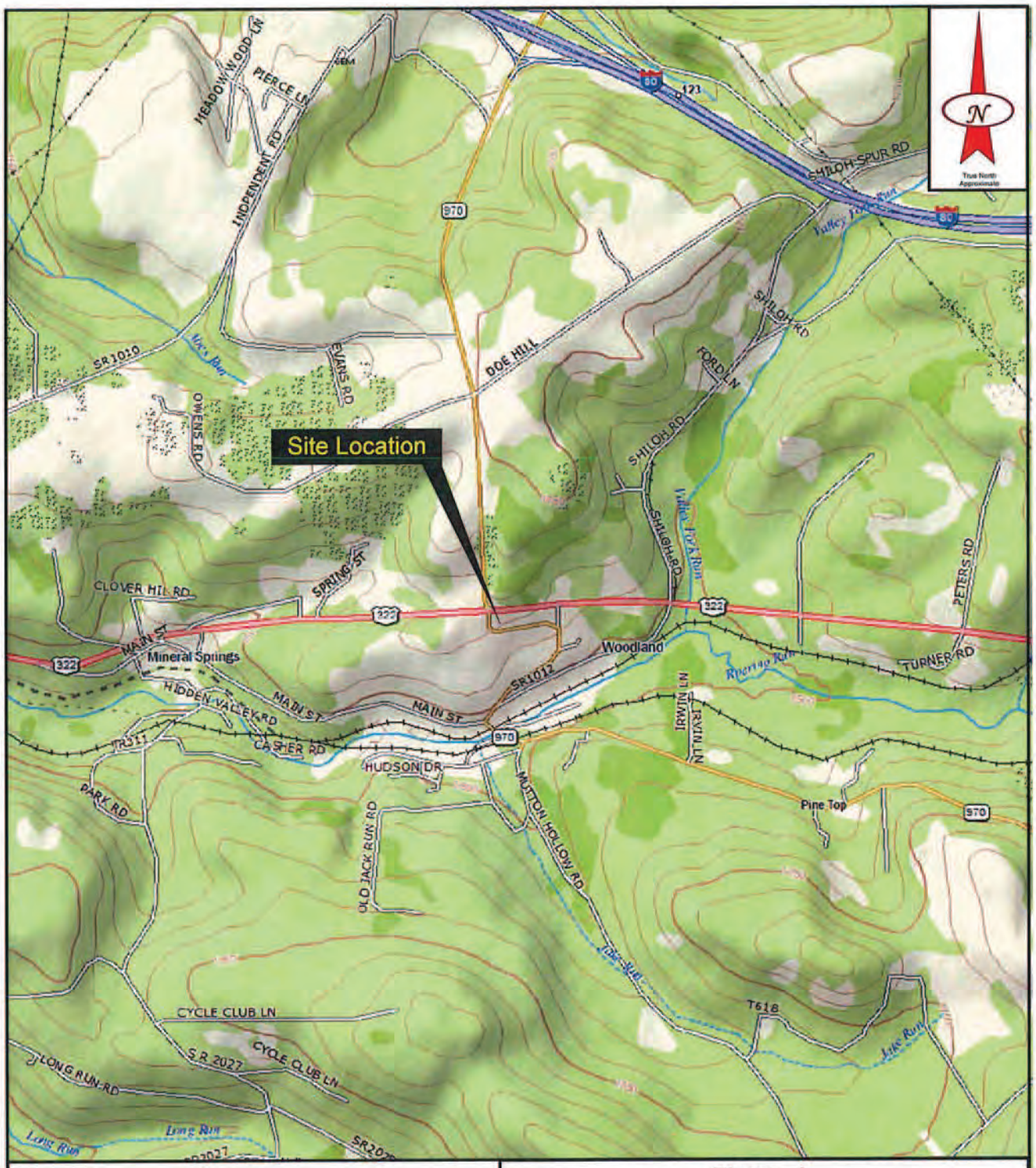


THG GEOPHYSICS Ltd

4280 Old William Penn Hwy
Murrysville, Pennsylvania 15668
(724) 325-3996 Fax: (724) 733-7901

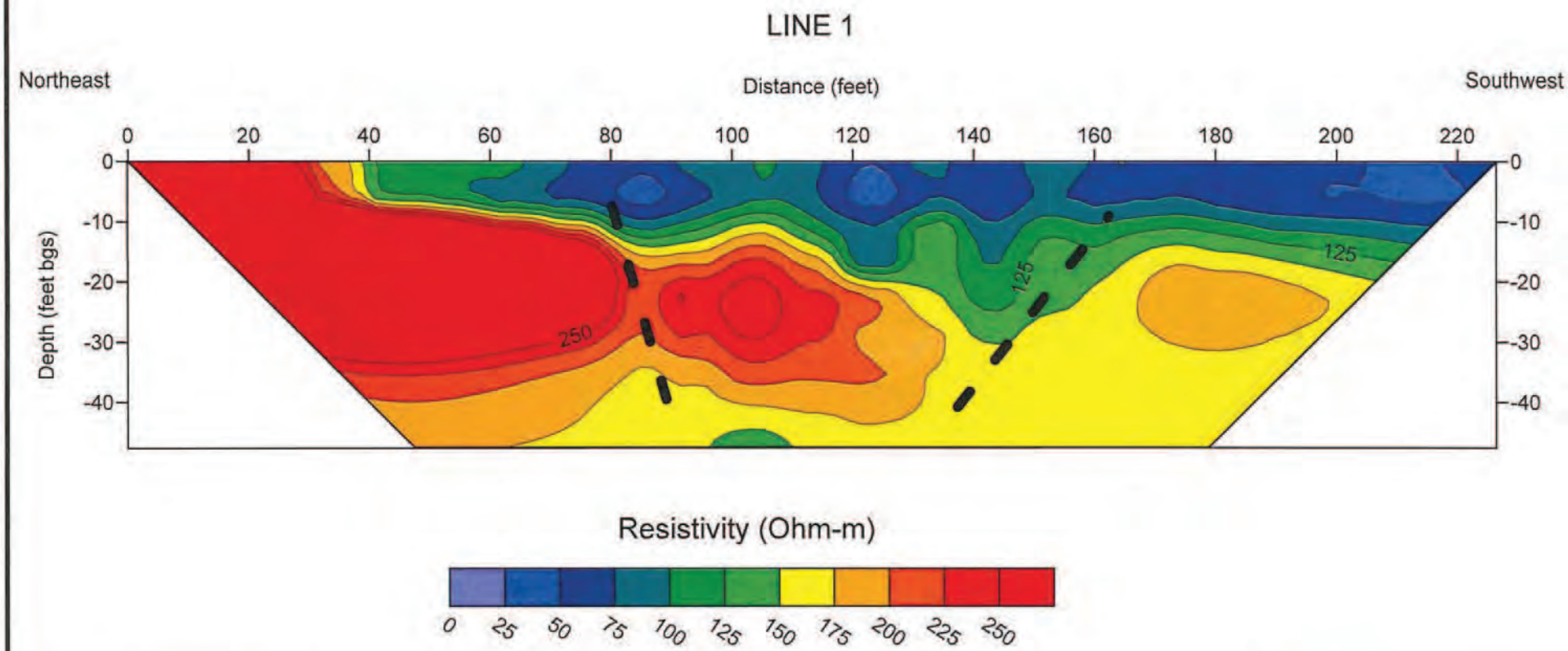
www.thggeophysics.com

0 ft 1000 ft 2000 ft 3000 ft 4000 ft 5000 ft

Figure 1
Site Location Map

Proposed Geophysical Investigation
Gio's BBQ
Woodland, Pennsylvania

SCALE: 1:24,000	PROJECT NO.: 213-6954	DRAWING NO.: DWG6954F1
DATE : 09/17/2018		
DRAWN BY: KSM	SOURCE: 1995 Wallaceton (PA) USGS 7.5 Minute Topographic Quadrangle	
CHECKED BY: PJH		



Notes

Geophysical survey conducted September 18-19, 2018 using a GF Instruments' ARES elelctrical resisitivity meter to map potential fractures.

Real-time positioning of data using fully integrated Trimble Geo7X global positioning system set to NAD 1983 US State Plane (Pennsylvania North) coordinate system in feet.

No vertical exaggeration
Horizontal 1" = 25'
Vertical 1" = 25'

GEOPHYSICS
4280 Old William Penn Hwy
Murrysville, Pennsylvania 15668
(724) 325-3996 Fax: (724) 733-7901
www.thggeophysics.com

DRN	KSM	9/19/18
DES	KSM	9/20/18
CHK	PJH	9/24/18
REV		
PROJ. MGR.	KSM	9/24/18
SCALE:	1 in = 25 ft	
SOURCE:		

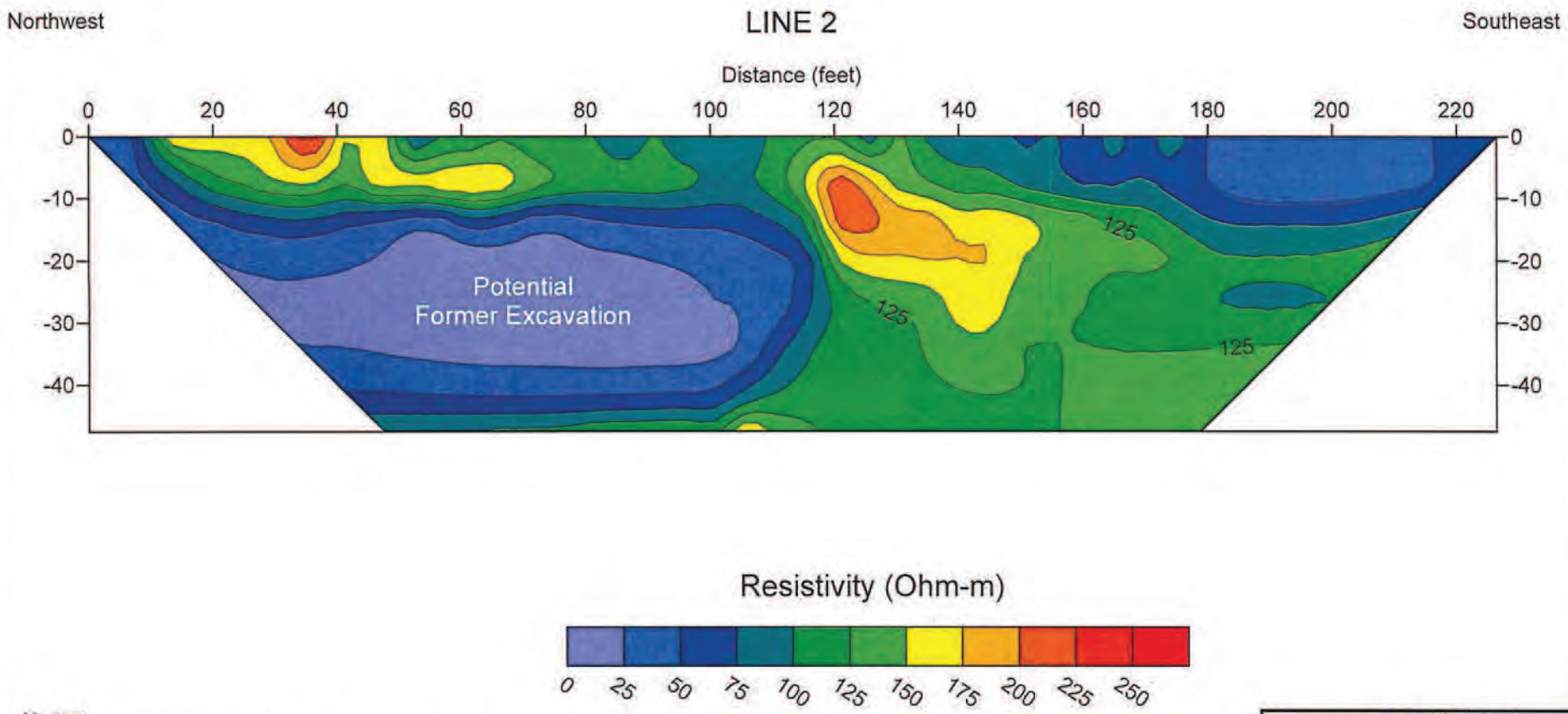
PROJECT:
Geophysical Investigation
Gio's BBQ
Woodland, Pennsylvania

DRAWING NO.:
Figure 3
Electrical Imaging Profile
Line 1

PREPARED FOR:
MOUNTAIN RESEARCH, LLC

PROJECT NO.:
213-6954

SHEET TITLE:
DWG6954F3



Notes

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Real-time positioning of data using fully integrated Trimble Geo7X global positioning system set to NAD 1983 US State Plane (Pennsylvania North) coordinate system in feet.

No vertical exaggeration
Horizontal 1" = 25'
Vertical 1" = 25'

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DRN	KSM	9/19/18
DES	KSM	9/20/18
CHK	PJH	9/24/18
REV		
PROJ. MGR.	KSM	9/24/18

SCALE: 1 in = 25 ft

SOURCE: NA

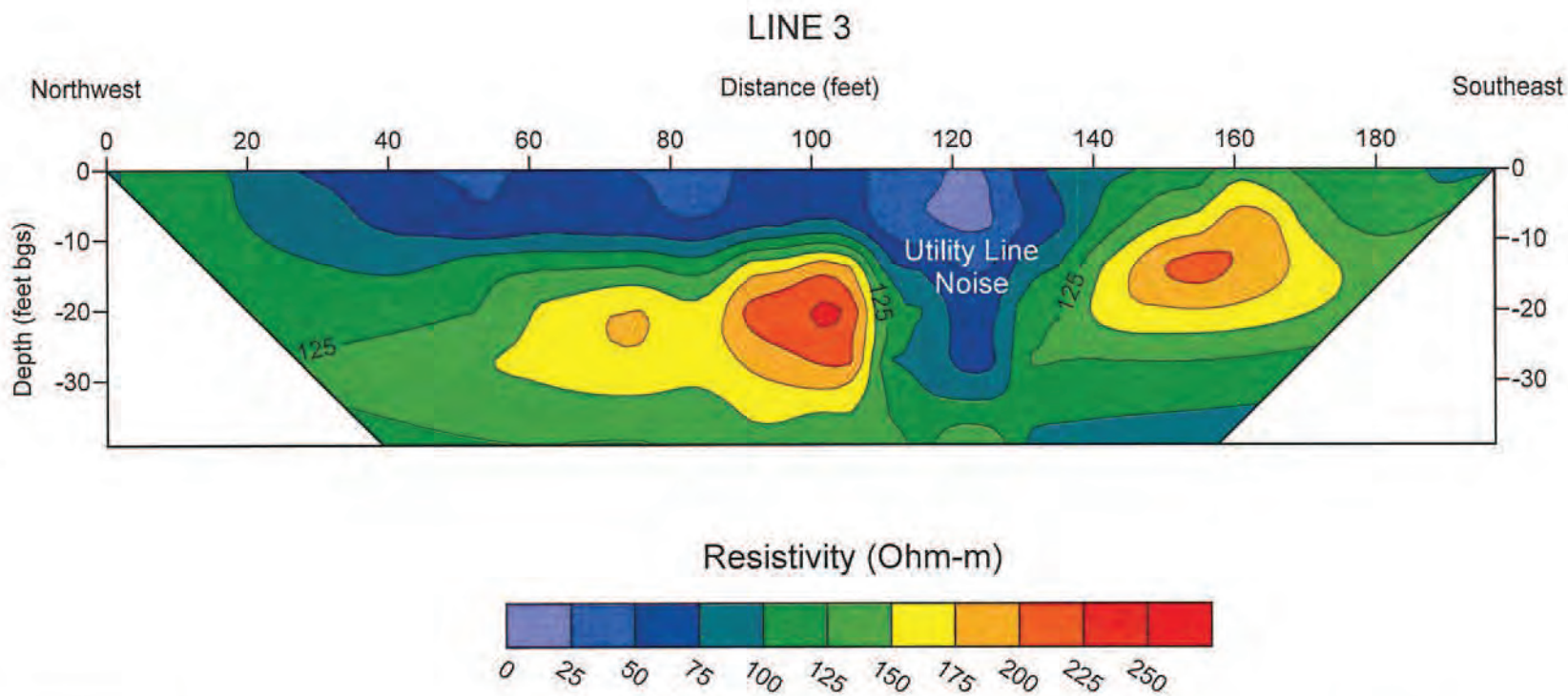
PROJECT: Geophysical Investigation
Gio's BBQ
Woodland, Pennsylvania

DRAWING NO.: **Figure 4**
Electrical Imaging Profile
Line 2

PREPARED FOR: MOUNTAIN RESEARCH, LLC

PROJECT NO.: 213-6954

SHEET TITLE: DWG6954F4



Notes

Geophysical survey conducted September 18-19, 2018 using a GF Instruments' ARES elelctrical resisitivity meter to map potential fractures.

Real-time positioning of data using fully integrated Trimble Geo7X global positioning system set to NAD 1983 US State Plane (Pennsylvania North) coordinate system in feet.

No vertical exaggeration
Horizontal 1" = 25'
Vertical 1" = 25'

GEOPHYSICS
4280 Old William Penn Hwy
Murrysville, Pennsylvania 15668
(724) 325-3996 Fax: (724) 733-7901
www.thggeophysics.com

DRN	KSM	9/19/18
DES	KSM	9/20/18
CHK	PJH	9/24/18
REV		
PROJ. MGR.	KSM	9/24/18

SCALE: 1 in = 25 ft

SOURCE: NA

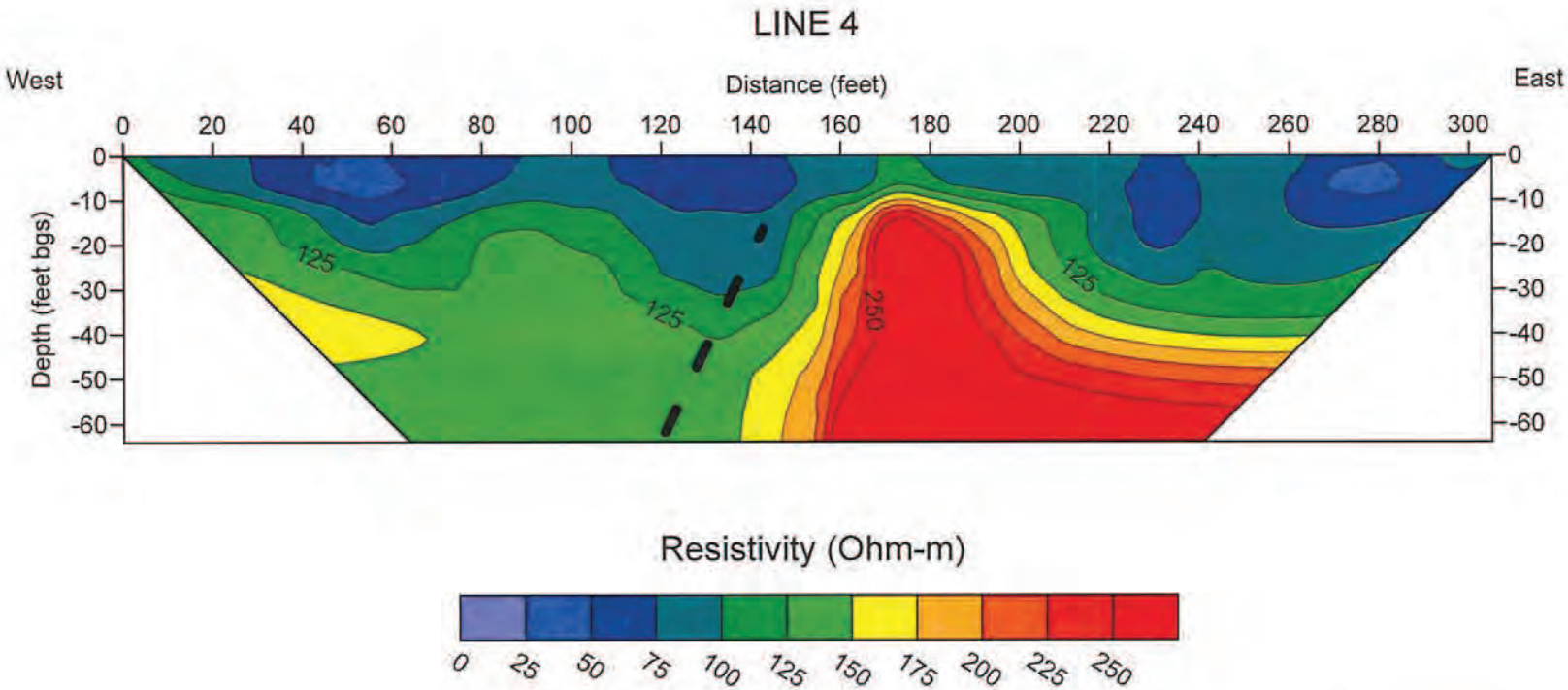
PROJECT:
Geophysical Investigation
Gio's BBQ
Woodland, Pennsylvania

DRAWING NO.:
Figure 5
Electrical Imaging Profile
Line 3

PREPARED FOR: MOUNTAIN RESEARCH, LLC

PROJECT NO.: 213-6954

SHEET TITLE: DWG6954F5



Notes

Geophysical survey conducted September 18-19, 2018 using a GF Instruments' ARES elelctrical resisitivity meter to map potential fractures.

Real-time positioning of data using fully integrated Trimble Geo7X global positioning system set to NAD 1983 US State Plane (Pennsylvania North) coordinate system in feet.

No vertical exaggeration
Horizontal 1" = 25'
Vertical 1" = 25'

THG GEOPHYSICS
4280 Old William Penn Hwy
Murrysville, Pennsylvania 15668
(724) 325-3996 Fax: (724) 733-7901
www.thggeophysics.com

DRN	KSM	9/19/18
DES	KSM	9/20/18
CHK	PJH	9/24/18
REV		
PROJ. MGR.	KSM	9/24/18

SCALE: 1 in = 40 ft

SOURCE: NA

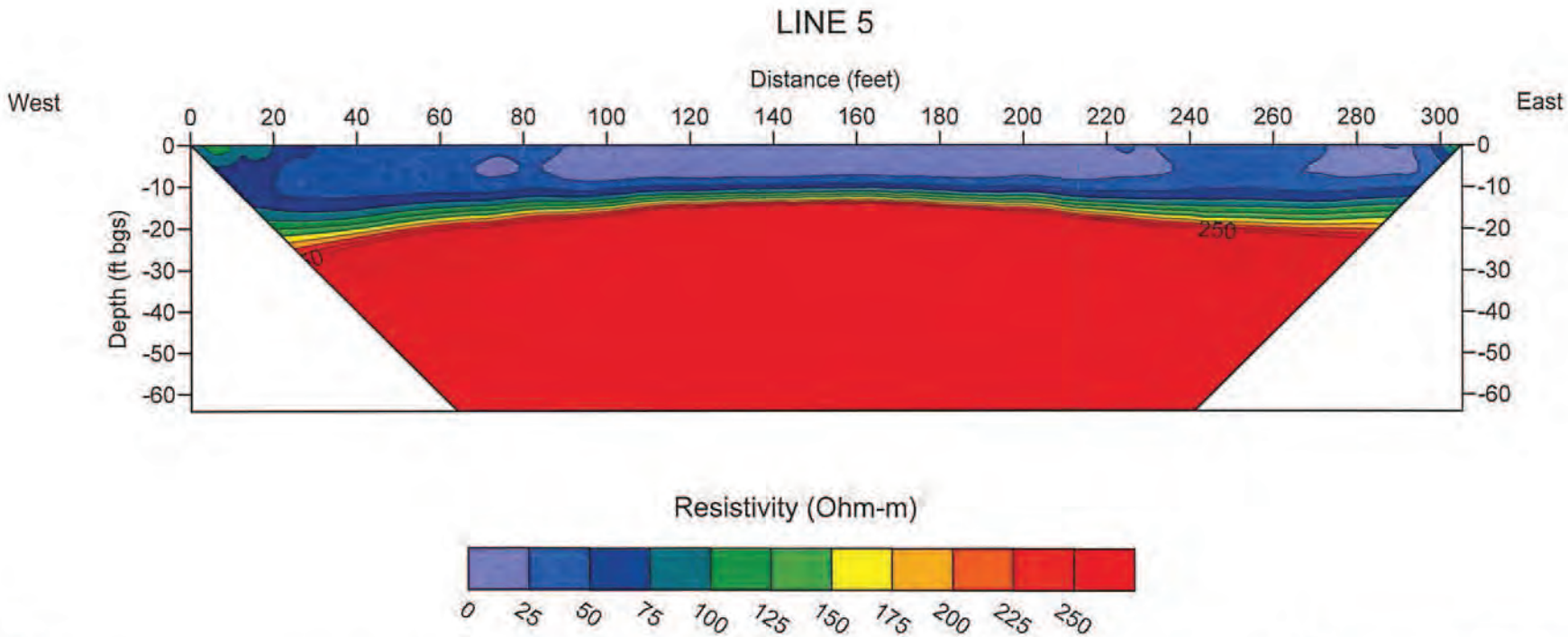
PROJECT: Geophysical Investigation
Gio's BBQ
Woodland, Pennsylvania

DRAWING NO.: **Figure 6**
Electrical Imaging Profile
Line 4

PREPARED FOR: Mountain Research, LLC

PROJECT NO.: 213-6954

SHEET TITLE: DWG6954F6



Notes

Geophysical survey conducted September 18-19, 2018 using a GF Instruments' ARES elelctrical resisitivity meter to map potential fractures.

Real-time positioning of data using fully integrated Trimble Geo7X global positioning system set to NAD 1983 US State Plane (Pennsylvania North) coordinate system in feet.

No vertical exaggeration
Horizontal 1" = 25'
Vertical 1" = 25'

GEOPHYSICS
4280 Old William Penn Hwy
Murrysville, Pennsylvania 15668
(724) 325-3996 Fax: (724) 733-7901
www.thggeophysics.com

DRN	KSM	9/15/18
DES	KSM	9/20/18
CHK	PJH	9/24/18
REV		
PROJ. MGR.	KSM	9/24/18

SCALE: 1 in = 40 ft

SOURCE: NA

PROJECT: Geophysical Investigation
Gio's BBQ
Woodland, Pennsylvania

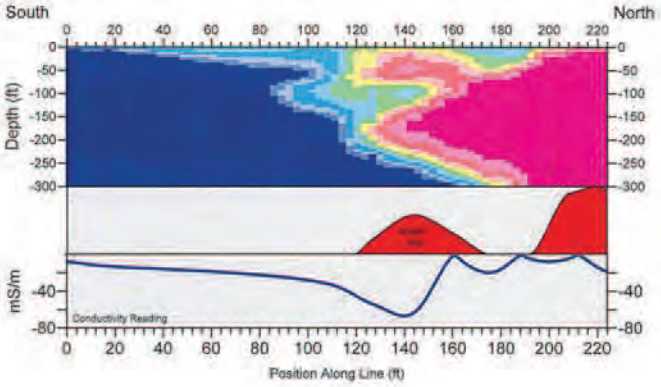
DRAWING NO.: **Figure 7**
Electrical Imaging Profile
Line 5

PREPARED FOR: MOUNTAIN RESEARCH, LLC

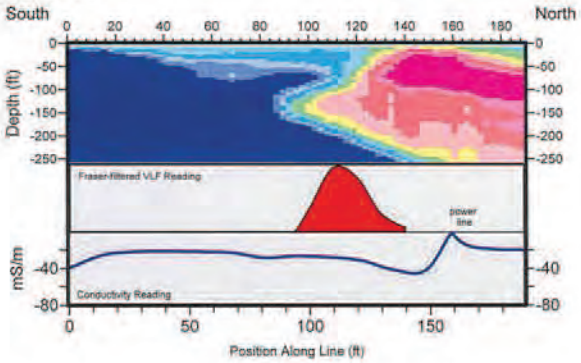
PROJECT NO.: 213-6954

SHEET TITLE: DWG6954F7

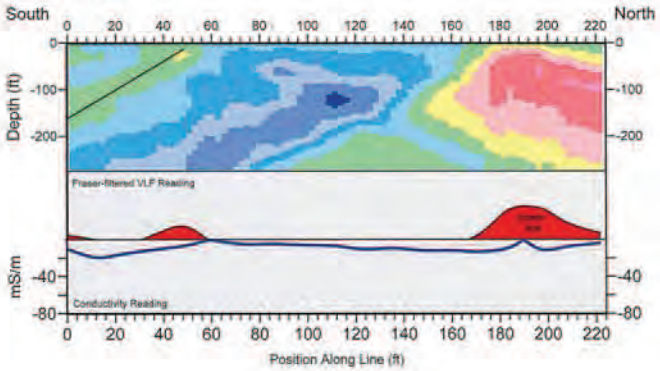
VLF Line 1



VLF Line 3



VLF Line 5



Notes

Geophysical survey conducted September 18-19, 2018 using an ABEM VLF Electromagnetic meter to map potential fractures.

Real-time positioning of data using fully integrated Trimble Geo7X global positioning system set to NAD 1983 US State Plane (Pennsylvania North) coordinate system in feet.

Locations are approximate.

DRN	KGM	9/19/18
DES	KGM	9/20/18
CHK	RJH	9/24/18
REV		
PROJ. MGR.	KGM	9/24/18

SCALE: 1 in = 50 ft

SOURCE: NA

PREPARED FOR: Pennsylvania Resources, LLC

GEOPHYSICS
4280 Old William Penn Hwy
Murrysville, Pennsylvania 15668
(724) 325-3996 Fax: (724) 733-7901
www.tlggeophysics.com

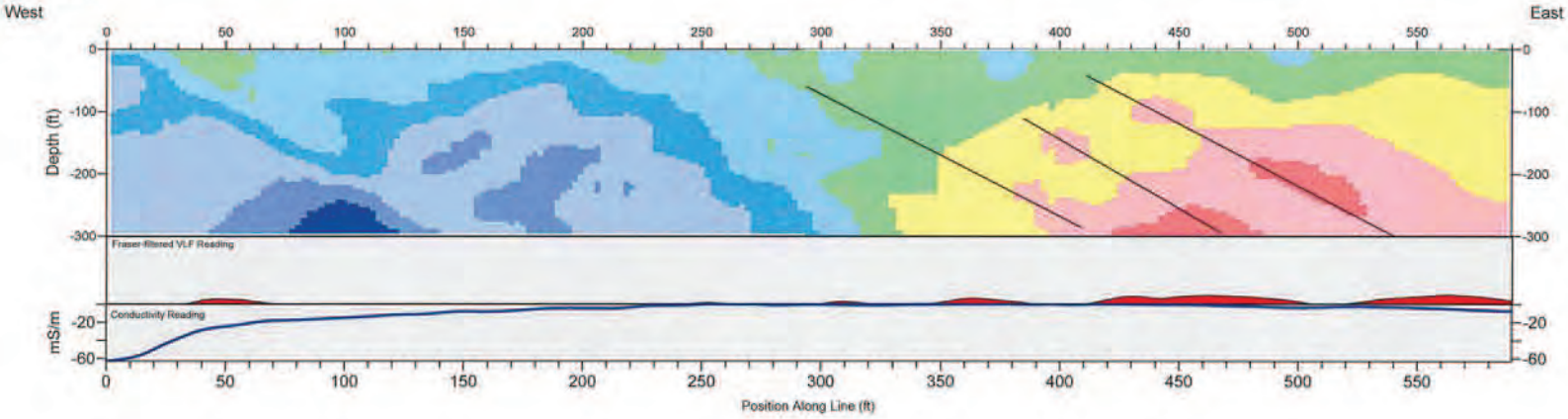
PROJECT: Geophysical Investigation
Gio's BBQ
Woodland, Pennsylvania

DRAWING NO: Figure 8
VLF - Lines 1, 5 & 3

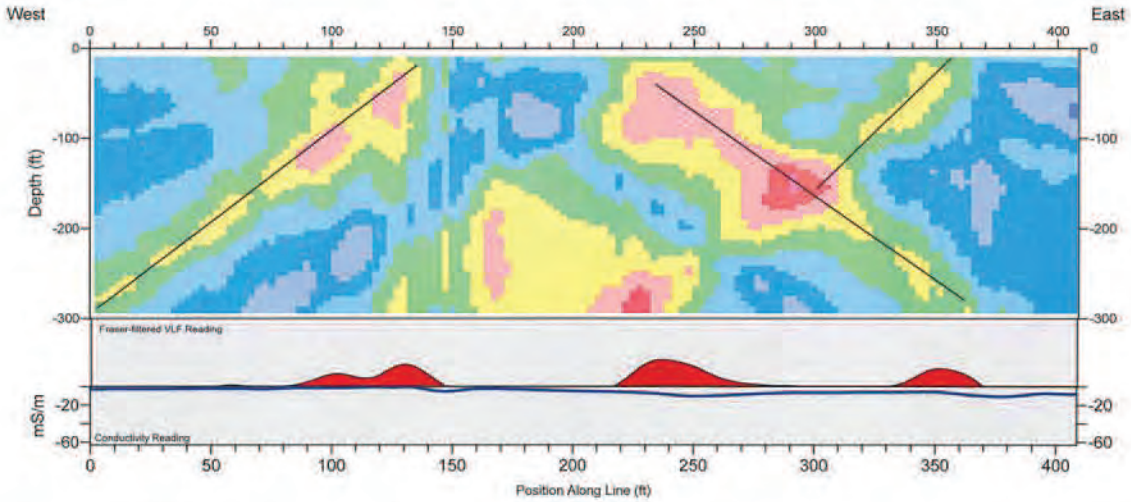
PROJECT NO: 213-6954

DWG TITLE: DWG6954F8

VLF Line 2



VLF Line 4



Notes

Geophysical survey conducted September 18-19, 2018 using an ABEM VLF Electromagnetic meter to map potential fractures.

Real-time positioning of data using fully integrated Trimble Geo7X global positioning system set to NAD 1983 US State Plane (Pennsylvania North) coordinate system in feet.

Locations are approximate.

GEOPHYSICS
4200 Old William Penn Hwy
Murrysville, Pennsylvania 15668
(724) 325-3866 Fax: (724) 733-7001
www.lhggeophysics.com

DRN	KSM	9/19/18
DES	KSM	9/24/18
CHK	RJH	9/24/18
REV		
PROJ. MGR.	KSM	9/24/18
SCALE:	1 in = 50 ft	
SOURCE:	NA	

PROJECT:
Geophysical Investigation
Glo's BBQ
Woodland, Pennsylvania

DRAWING NO.:
Figure 9
VLF - Lines 2 & 4

PREPARED FOR:
MOUNTAIN RESEARCH, LLC

PROJECT NO.: 213-6954
SHEET TITLE: DWG6954F9

APPENDIX N

LABORATORY ANALYTICAL REPORTS - SOIL

MOUNTAIN RESEARCH, LLC

Corporate Office and Laboratory
825 25th Street
Altoona, PA 16601
814.949.2034 Phone
800.837.4674 Toll Free
814.949.9591 Fax

DuBois Office and Laboratory
110 McCracken Run Road
DuBois, PA 15801
814.371.6030 Phone
814.375.0823 Fax

Hydrochem Laboratories
85 Potomac Avenue
Shenandoah Junction, WV 25442
(304) 930-1972
Fax (304) 930-1975

01 February 2018

Lab ID #: 8010569

Dave Panasiti
Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland, PA 16881

RE: Woodland, PA

Enclosed are the results of analyses for samples received by the laboratory on 01/19/18 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stephen Gampe

Stephen Gampe
Assistant Laboratory Manager

Authorized Reviewer

MOUNTAIN RESEARCH, LLC

Corporate Office and Laboratory
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Altoona, PA 16601
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DuBois, PA 15801
814.371.6030 Phone
814.375.0823 Fax

Hydrochem Laboratories
85 Potomac Avenue
Shenandoah Junction, WV 25442
(304) 930-1972
Fax (304) 930-1975

Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8010569 **Reported:** 02/01/18 13:46

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
Disposal	8010569-01	Solid	Grab	01/19/18 16:00	01/19/18 16:30

Mountain Research, LLC

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

MOUNTAIN RESEARCH, LLC

Corporate Office and Laboratory
825 25th Street
Altoona, PA 16601
814.949.2034 Phone
800.837.4674 Toll Free
814.949.9591 Fax

DuBois Office and Laboratory
110 McCracken Run Road
DuBois, PA 15801
814.371.6030 Phone
814.375.0823 Fax

Hydrochem Laboratories
85 Potomac Avenue
Shenandoah Junction, WV 25442
(304) 930-1972
Fax (304) 930-1975

Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8010569 **Reported:** 02/01/18 13:46

Disposal

8010569-01 (Solid) Sampled: 01/19/18 16:00

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Ignitability	Does Not Ignite	NA	Det./ND	01/25/18 12:45	01/25/18 12:45		EPA 1030	A	JMK	
Total Solids	93.4	1.00	wt%	01/22/18 15:30	01/22/18 15:30		SM(22) 2540 G-1997	A	STG	
Petroleum Hydrocarbons by GC/FID										
Diesel Range Organics	<8.91	8.91	mg/Kg dry	01/24/18 10:25	01/27/18 00:15	EPA 3550B	EPA 8015 B	A	JSA	
Surrogate: O-terphenyl		*77.1 %*	*12.1-212.3*	*01/24/18 10:25*	*01/27/18 00:15*	*EPA 8015 B*				
Volatile Organic Compounds by GC/MS										
Benzene	<214	214	µg/Kg dry	01/22/18 18:44	01/22/18 18:44	EPA 5035	EPA 8260 B	A	JSA	
BTEX, Total	<1280	1280	µg/Kg dry	01/22/18 18:44	01/22/18 18:44	EPA 5035	EPA 8260 B	A	JSA	CC
Ethylbenzene	<214	214	µg/Kg dry	01/22/18 18:44	01/22/18 18:44	EPA 5035	EPA 8260 B	A	JSA	
Toluene	<214	214	µg/Kg dry	01/22/18 18:44	01/22/18 18:44	EPA 5035	EPA 8260 B	A	JSA	
Xylene o	<214	214	µg/Kg dry	01/22/18 18:44	01/22/18 18:44	EPA 5035	EPA 8260 B	A	JSA	
Xylene p/m	<428	428	µg/Kg dry	01/22/18 18:44	01/22/18 18:44	EPA 5035	EPA 8260 B	A	JSA	
Xylenes, Total	<642	642	µg/Kg dry	01/22/18 18:44	01/22/18 18:44	EPA 5035	EPA 8260 B	A	JSA	CC
Surrogate: 1,2-Dichloroethane-d4		*98.6 %*	*80-120*	*01/22/18 18:44*	*01/22/18 18:44*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*95.5 %*	*80-120*	*01/22/18 18:44*	*01/22/18 18:44*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*105 %*	*80-120*	*01/22/18 18:44*	*01/22/18 18:44*	*EPA 8260 B*				
Surrogate: Toluene-d8		*98.2 %*	*80-120*	*01/22/18 18:44*	*01/22/18 18:44*	*EPA 8260 B*				

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

MOUNTAIN RESEARCH, LLC

Corporate Office and Laboratory
825 25th Street
Altoona, PA 16601
814.949.2034 Phone
800.837.4674 Toll Free
814.949.9591 Fax

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85 Potomac Avenue
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(304) 930-1972
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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8010569 **Reported:** 02/01/18 13:46

Certifications

Code	Description	Number	Expires
MDDOE	Maryland Department of the Environment	257	06/30/2018
PADEP-Altoona	Pennsylvania Department of Environmental Protection	009	03/31/2018
WVDEP-Altoona	West Virginia Department of Environmental Protection	225	12/31/2018
PADEP-DuBois	Pennsylvania Department of Environmental Protection	008	09/30/2018
WVDEP-HydroChem	West Virginia Department of Environmental Protection	038	11/01/2018

Notes and Definitions

CC	Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
RL	Reporting Limit - either the practical quantitation limit or the method detection limit
dry	Sample results reported on a dry weight basis
A	Analysis Performed by Mountain Research Altoona Laboratory - PADEP #07-00418, WVDEP #225
D	Analysis Performed by Mountain Research DuBois Laboratory - PADEP # 33-00258
W	Analysis Performed by Mountain Research - HydroChem Laboratory - WVDEP #038

Billing Group:	Phase:	PROJECT NAME
		Disposal
MR Project # 4923.18.01		SITE LOCATION Woodland, PA
CLIENT Woodland Fuel and Food		SAMPLER(S) AK

MOUNTAIN RESEARCH LL

825 25th Street, Altoona, PA 16601 (814) 94

110 McCracken Run Road, Dubois, PA 15801 (814) 37

CHAIN OF CUSTODY RECORD

NOTES:

Received On Ice: Q / N

Sample Temp: 4.7

PWSID #

Comments:

Analyses Requested

SAMPLE ID	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	BTEX	TPH - GRO	TPH - DRO	Ignitibility	Preserve	LAB NUMBER
Disposal	1-19-18	4:00 pm	X		Soil	1-40 mL voa		X				MeOH	01
			X		Soil	1-40 mL voa			X			MeOH	
			X		Soil	1-4 oz jar				X		None	
			X		Soil	1-liter glass					X	None	

MR PROJ. MGR.

Shipping Carrier:

Turn Around Time:
10 Day ✓
3 Day
1 Day

Comments:

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Lab Workorder #:	Log In Time: 16:57
[signature]	1-19-18	4:30	[signature]	16:30 1-19-18	8010569	Staff: KD
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Labeled By:	Date: 1-19-18

MOUNTAIN RESEARCH SAMPLE RECEIPT PROTOCOL

WORK ORDER: 8010569

CLIENT: Woodland Fuel

DATE SAMPLED: 1/19/18 DATE RECEIVED: 1/19/18 TIME RECEIVED: 16:38

1. CHECK ALL THAT APPLY: PA ☐ WV ☐ MD ☐ P W S ☐ NPDES/COMPLIANCE ☐ DAIRY ☐ RUSH ☐

2. WERE ANY OF THE SAMPLE CONTAINERS DAMAGED/LEAKING? (ARE CUSTODY SEALS BROKEN?) YES ☐ NO ☑

IF YES, EXPLAIN: _____

3. NUMBER OF CONTAINERS RECEIVED: 4

4. WERE THE SAMPLES RECEIVED ON ICE/OTHER ACCEPTABLE REFRIGERANT? YES ☐ NO ☐

IF NO, EXPLAIN: _____

5. RECEIVING TEMP: 4.7°C TEMP CONTROL(S) PRESENT YES ☐ NO ☐ BOTTLE(S) TEMPED: _____

6. WERE THE SAMPLES PROPERLY PRESERVED? YES ☑ NO ☐

IF NO, EXPLAIN: _____

7. WERE THE SAMPLES COLLECTED IN THE CORRECT CONTAINERS? YES ☑ NO ☐

IF NO, EXPLAIN: _____

8. IS THERE HEADSPACE PRESENT FOR VOLATILES/ODOR SAMPLES? YES ☐ NO ☐ N/A ☑

9. WAS THE COC FILLED OUT PROPERLY? YES ☑ NO ☐

IF NO, EXPLAIN: _____

10. DID THE SAMPLE LABEL(S) CONTAIN ADEQUATE INFO? (CLIENT/DATE/TIME/PRESERVATIVE) YES ☑ NO ☐

IF NO, EXPLAIN: _____

11. WERE ANY OF THE SAMPLES RECEIVED OUTSIDE OF HOLDING TIME? YES ☐ NO ☑

IF YES, EXPLAIN: _____

12. DO THE SAMPLES REQUIRE ANALYSES THAT HAVE A SHORT HOLDING TIME? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____ **PLEASE NOTIFY LABORATORY ANALYSTS!**

13. IS SUBCONTRACTING REQUIRED? YES ☑ NO ☐ KR 1/19/18

IF YES, WHAT ANALYSES? GRO

14. WAS THE CLIENT CONTACTED? YES ☐ NO ☑ IF YES, FILL OUT THE FOLLOWING:

MR EMPLOYEE INITIALS: CLIENT SPOKEN TO: DATE/TIME:

OUTCOME:

SIGNATURE: [signature]

L60.30.A r2 Sample Receipt Form

For MR Use Only

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

FAIRWAY LABORATORIES
www.fairwaylaboratories.com

Mountain Research LLC
825 25th Street
Altoona PA, 16601
Project Manager: Steven Gampe

Project: Subcontract
Project Number: 4923.18.01
Collector: CLIENT
Number of Containers: 1

Reported:
01/31/18 10:17

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
8010569-01	8A22024-01	Solid	Grab	01/19/18 14:00	01/22/18 14:45

Client Sample ID: 8010569-01 **Date/Time Sampled:** 01/19/18 14:00

Laboratory Sample ID: 8A22024-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Petroleum Hydrocarbons by 8015 GRO								
Gasoline Range Organics	<21.5		21.5	mg/kg dry	01/25/18 15:11	EPA 8015D	bag	
Surrogate: a,a,a-Trifluorotoluene		*93.3 %*	*70-130*		*01/25/18 15:11*	*EPA 8015D*	bag	

Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

Fairway Labs in Altoona, PA is a NELAP (National Environmental Laboratory Accreditation Program) accredited lab, and as such, certifies that all applicable test results meet the requirements of NELAP, unless otherwise stated on the analytical report.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

2019 Ninth Avenue
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Altoona, PA 16603
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Pennsdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684

State Certifications: MD 275, WV 364

FAIRWAY LABORATORIES
www.fairwaylaboratories.com

Mountain Research LLC		Project:	Subcontract	
825 25th Street		Project Number:	4923.18.01	**Reported:**
Altoona PA, 16601		Collector:	CLIENT	01/31/18 10:17
Project Manager:	Steven Gampe	Number of Containers:	1	

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.

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.

#	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; and should be considered as analyzed outside the EPA holding time.
^	The following analytes are to be filtered immediately upon sampling: Hexavalent Chromium. Filtration through a 0.45 micron filter within 15 minutes of sampling is required for compliance with the Clean Water Act (CWA) for reporting of hexavalent chromium to prevent interconversion of chromium species.
*	P indicates analysis performed by Fairway Laboratories, Inc. at the Pennsdale location. This location is PaDEP Chapter 252 certified.
*	G indicates analysis performed by Fairway Laboratories, Inc. at the Greensburg location PaDEP: 65-00392. 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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PaDEP: PA 41-04684

State Certifications: MD 275, WV 364

FAIRWAY LABORATORIES
www.fairwaylaboratories.com

Mountain Research LLC		Project:	Subcontract	
825 25th Street		Project Number:	4923.18.01	**Reported:**
Altoona PA, 16601		Collector:	CLIENT	01/31/18 10:17
Project Manager:	Steven Gampe	Number of Containers:	1	

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. Samples received at the laboratory after business hours are verified on the next business day. Discrepancies are documented on the Receiving Document.

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.

Fairway Labs in Altoona, PA is a NELAP (National Environmental Laboratory Accreditation Program) accredited lab, and as such, certifies that all applicable test results meet the requirements of NELAP, unless otherwise stated on the analytical report.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

#1

SUBCONTRACT ORDER

Mountain Research, LLC

8010569

P.O.# 24656

4923.18.01

BA22024 1 of 2

0.6

SENDING LABORATORY:

Mountain Research, LLC
825 25th Street
Altoona, PA 16601
Phone: 814-949-2034
Fax: 814-949-9591
Project Manager: Stephen Gampe

RECEIVING LABORATORY:

Fairway Laboratories, Inc.
2019 9th Avenue
Altoona, PA 16602
Phone :(814) 946-4306
Fax: (814) 946-8791

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 8010569-01	**Solid**	**Sampled:01/19/18 14:00**	[redacted]	
GRO_8015	02/02/18 16:00	07/18/18 14:00		
Containers Supplied:				

Released By: Scott A. O'Neal Date: 1-22-18 Received By: Allen Date: 1-22-18 14:45

Released By: Date: 14:45 Received By: Date:

SOP FLI0601-002 Revision 22 Date: November 8, 2016 Page of #2

Chain of Custody Receiving Document

Page 2 of 2

Receiver: A1

Date/Time of this check: 1-22-18 1451 Client: Mountain Lab # SA22024

Received on ICE? Y ☐ * **Sample Temperature when delivered to the Lab:** 0.6 **Acceptable?** Y ☐ * **or In cool down process?** ☐ *
(Not applicable for WV compliance)

Custody Seals? No Intact? NA

A-1 1-22-18

COC/Labels on bottles agree? Y ☐* Correct containers for all the analysis requested? Y ☐ * Matrix: ~~Water~~ Solid

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	☐ * Internal notification completed for deviations.
-01							1mech		NA		

* DEVIATION PRESENT:	CLIENT CALLED:	CLIENT RESPONSE:
⊗ No Ice ( )	YES ( )	Proceed with analysis; qualify data ( )
⊗ Not at Proper Temperature ( )	By Whom:	Will Resample ( )
⊗ Wrong Container ( )		Provided Information ( )
⊗ Missing Information: ( )	_____ Date: _____	No Response; Proceed and qualified ( )
		Client Contact: _____ Date: _____

* Comments: _____

This is a date sensitive document and may not be current after January 18, 2018.

8A27024 #3

MOUNTAIN RESEARCH, LLC

Purchase Order 24656

DRAFT

DATE **1/22/18**

TO	SHIP TO	BILL TO
FAIRWAY LABORATORIES, INC. FAIRWAY LA 2019 NINTH AVENUE ALTOONA, PA 16602 PHONE (814) 946-4306 FAX (814) 946-8791 E-MAIL bgartland@fairwaylaboratories.com	**MOUNTAIN RESEARCH, LLC** 825 25th Street Altoona, PA 16601 PHONE 814-949-2034 EXT 230 FAX 814-949-9591 E-MAIL ewalters@mountainresearch.com	**MOUNTAIN RESEARCH, LLC** 825 25th Street Altoona, PA 16601 PHONE 814-949-2034 ext 230 FAX 814-949-9591 E-MAIL ewalters@mountainresearch.com

P.O. NUMBER	ORDER DATE	BUYER	PAY TERMS	EXCESS RECV	EXCESS %	EXCESS AMOUNT
24656	1/22/18	DeRose, Katherine	30	N		

AGREEMENT TERMS

1	8010569-01 FOR GRO		1.00				2/21/2018

[redacted]

MOUNTAIN RESEARCH, LLC

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814.371.6030 Phone
814.375.0823 Fax

Hydrochem Laboratories
85 Potomac Avenue
Shenandoah Junction, WV 25442
(304) 930-1972
Fax (304) 930-1975

21 March 2018

Lab ID #: 8030331

Dave Panasiti
Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland, PA 16881

RE: Woodland, PA

Enclosed are the results of analyses for samples received by the laboratory on 03/09/18 08:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stephen Gampe

Stephen Gampe
Assistant Laboratory Manager

Authorized Reviewer

MOUNTAIN RESEARCH, LLC

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(304) 930-1972
Fax (304) 930-1975

Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030331 **Reported:** 03/21/18 16:02

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
SB-3 (13.0) US	8030331-01	Solid	Grab	03/06/18 11:30	03/09/18 08:30

Mountain Research, LLC

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

MOUNTAIN RESEARCH, LLC

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Fax (304) 930-1975

Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030331 **Reported:** 03/21/18 16:02

SB-3 (13.0) US

8030331-01 (Solid) Sampled: 03/06/18 11:30

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	**84.5**	1.00	wt%	03/15/18 18:00	03/15/18 18:00		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	**15.8**	2.37	µg/Kg dry	03/10/18 02:05	03/10/18 02:05	EPA 5035	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	**5.21**	2.37	µg/Kg dry	03/10/18 02:05	03/10/18 02:05	EPA 5035	EPA 8260 B	A	JMG	
Benzene	<2.37	2.37	µg/Kg dry	03/10/18 02:05	03/10/18 02:05	EPA 5035	EPA 8260 B	A	JMG	
Ethylbenzene	<2.37	2.37	µg/Kg dry	03/10/18 02:05	03/10/18 02:05	EPA 5035	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.37	2.37	µg/Kg dry	03/10/18 02:05	03/10/18 02:05	EPA 5035	EPA 8260 B	A	JMG	
MTBE	<2.37	2.37	µg/Kg dry	03/10/18 02:05	03/10/18 02:05	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	**26.0**	2.37	µg/Kg dry	03/10/18 02:05	03/10/18 02:05	EPA 5035	EPA 8260 B	A	JMG	
Toluene	<2.37	2.37	µg/Kg dry	03/10/18 02:05	03/10/18 02:05	EPA 5035	EPA 8260 B	A	JMG	
Xylene o	<2.37	2.37	µg/Kg dry	03/10/18 02:05	03/10/18 02:05	EPA 5035	EPA 8260 B	A	JMG	
Xylene p/m	<4.73	4.73	µg/Kg dry	03/10/18 02:05	03/10/18 02:05	EPA 5035	EPA 8260 B	A	JMG	
Xylenes, Total	<7.10	7.10	µg/Kg dry	03/10/18 02:05	03/10/18 02:05	EPA 5035	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*115 %*	*80-120*	*03/10/18 02:05*	*03/10/18 02:05*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*97.1 %*	*80-120*	*03/10/18 02:05*	*03/10/18 02:05*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*108 %*	*80-120*	*03/10/18 02:05*	*03/10/18 02:05*	*EPA 8260 B*				
Surrogate: Toluene-d8		*98.7 %*	*80-120*	*03/10/18 02:05*	*03/10/18 02:05*	*EPA 8260 B*				

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

MOUNTAIN RESEARCH, LLC

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030331 **Reported:** 03/21/18 16:02

Certifications

Code	Description	Number	Expires
MDDOE	Maryland Department of the Environment	257	06/30/2018
PADEP-Altoona	Pennsylvania Department of Environmental Protection	009	03/31/2018
WVDEP-Altoona	West Virginia Department of Environmental Protection	225	12/31/2018
PADEP-DuBois	Pennsylvania Department of Environmental Protection	008	09/30/2018
WVDEP-HydroChem	West Virginia Department of Environmental Protection	038	11/01/2018

Notes and Definitions

CC	Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
RL	Reporting Limit - either the practical quantitation limit or the method detection limit
dry	Sample results reported on a dry weight basis
A	Analysis Performed by Mountain Research Altoona Laboratory - PADEP #07-00418, WVDEP #225
D	Analysis Performed by Mountain Research DuBois Laboratory - PADEP # 33-00258
W	Analysis Performed by Mountain Research - HydroChem Laboratory - WVDEP #038

BALL POINT PEN ONLY

Billing Group:	Phase:	PROJECT NAME: Drilling
MR Project #: 4923.18.01		SITE LOCATION: Woodland, PA
CLIENT: Woodland Fuel and Food		SAMPLER(S): AK

NOTES:
Received On Ice: (Y) / N
Sample Temp: 5.2°C
PWSID #:
Seal In Tack: Y / N
Other:
Comments:

MOUNTAIN RESEARCH LL
825 25th Street, Altoona, PA 16601 (814) 949-2034 (800
110 McCracken Run Road, Dubois, PA 15801 (814) 371-6030 Fax

CHAIN OF CUSTODY RECORD

MR PROJ. MGR. GL

Shipping Carrier:

Turn Around Time:
10 Day ✓
3 Day
1 Day

Comments:

Analyses Requested: 8260B; % Solid

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	% Solid	Preserve	LAB NUMBER
SB-3(13.0)US	3-6-18	11:30am	X		Soil	1 40mL VOA	2A	X		MEOH	-01
						3 40mL VOAs	2A	X		Na2S2O3	↓
						1 4oz glass	—		X	None	↓

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #:	Log In Time:
Aden Ahn	3-9-18	8:30am	[signature]	3-9-18	08:30	8030331	1325
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Staff: JSA
							Date: 3/12/18

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

H:\H\HYDRO\Field Forms\C-O-C\Blank COC_v1_04_08

MOUNTAIN RESEARCH SAMPLE RECEIPT PROTOCOL

WORK ORDER: 8030331

CLIENT: Woodland

DATE SAMPLED: DATE RECEIVED: 3/9/18 TIME RECEIVED: 0830

1. CHECK ALL THAT APPLY: ~~PA~~ ☐ ✓ WV ☐ MD ☐ P W S ☐ NPDES/COMPLIANCE ☐ DAIRY ☐ RUSH ☐

2. WERE ANY OF THE SAMPLE CONTAINERS DAMAGED/LEAKING? (ARE CUSTODY SEALS BROKEN?) YES ☐ NO ☐ ✓

IF YES, EXPLAIN: _____

3. NUMBER OF CONTAINERS RECEIVED: 5

4. WERE THE SAMPLES RECEIVED ON ICE/OTHER ACCEPTABLE REFRIGERANT? YES ☐ ✓ NO ☐

IF NO, EXPLAIN: _____

5. RECEIVING TEMP 5.2 °C TEMP CONTROL(S) PRESENT YES ☐ NO ☐ BOTTLE(S) TEMPED: _____

6. WERE THE SAMPLES PROPERLY PRESERVED? YES ☐ NO ☐

IF NO, EXPLAIN: _____

7. WERE THE SAMPLES COLLECTED IN THE CORRECT CONTAINERS? YES ☐ ✓ NO ☐

IF NO, EXPLAIN: _____

8. IS THERE HEADSPACE PRESENT FOR VOLATILES/ODOR SAMPLES? YES ☐ NO ☐ N/A ☐ ✓

9. WAS THE COC FILLED OUT PROPERLY? YES ☐ ✓ NO ☐

IF NO, EXPLAIN: _____

10. DID THE SAMPLE LABEL(S) CONTAIN ADEQUATE INFO? (CLIENT/DATE/TIME/PRESERVATIVE) YES ☐ ✓ NO ☐

IF NO, EXPLAIN: _____

11. WERE ANY OF THE SAMPLES RECEIVED OUTSIDE OF HOLDING TIME? YES ☐ NO ☐ ✓

IF YES, EXPLAIN: _____

12. DO THE SAMPLES REQUIRE ANALYSES THAT HAVE A SHORT HOLDING TIME? YES ☐ NO ☐ ✓

IF YES, WHAT ANALYSES? _____ **PLEASE NOTIFY LABORATORY ANALYSTS!**

13. IS SUBCONTRACTING REQUIRED? YES ☐ NO ☐ ✓

IF YES, WHAT ANALYSES? _____

14. WAS THE CLIENT CONTACTED? YES ☐ NO ☐ ✓ IF YES, FILL OUT THE FOLLOWING:

MR EMPLOYEE INITIALS: CLIENT SPOKEN TO: DATE/TIME:

OUTCOME:

SIGNATURE: [signature]

L60.30.A r2 Sample Receipt Form

For MR Use Only

MOUNTAIN RESEARCH, LLC

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(304) 930-1972
Fax (304) 930-1975

21 March 2018

Lab ID #: 8030327

Dave Panasiti
Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland, PA 16881

RE: Woodland, PA

Enclosed are the results of analyses for samples received by the laboratory on 03/09/18 14:26. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stephen Gampe

Stephen Gampe
Assistant Laboratory Manager

Authorized Reviewer

MOUNTAIN RESEARCH, LLC

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(304) 930-1972
Fax (304) 930-1975

Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030327 **Reported:** 03/21/18 15:59

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
SB-7 (15.0 u)	8030327-01	Solid	Grab	03/08/18 11:30	03/09/18 14:26
SB-7 (18.5 u)	8030327-02	Solid	Grab	03/08/18 11:30	03/09/18 14:26
SB-8 (9.5 u)	8030327-03	Solid	Grab	03/08/18 13:15	03/09/18 14:26
SB-8 (12.0 u)	8030327-04	Solid	Grab	03/08/18 13:15	03/09/18 14:26
SB-9 (6.5 u)	8030327-05	Solid	Grab	03/08/18 16:40	03/09/18 14:26
SB-9 (11.5 u)	8030327-06	Solid	Grab	03/08/18 16:40	03/09/18 14:26
SB-10 (5.0 u)	8030327-07	Solid	Grab	03/09/18 11:45	03/09/18 14:26
Trip Blank	8030327-08	Aqueous	Grab	03/08/18 06:30	03/09/18 14:26
Equipment Blank	8030327-09	Aqueous	Grab	03/08/18 10:00	03/09/18 14:26
Blind Duplicate	8030327-10	Solid	Grab	03/08/18 00:00	03/09/18 14:26

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

MOUNTAIN RESEARCH, LLC

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030327 **Reported:** 03/21/18 15:59

SB-7 (15.0 u)

8030327-01 (Solid) Sampled: 03/08/18 11:30

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	92.4	1.00	wt%	03/15/18 18:00	03/15/18 18:00		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										O1
1,2,4-Trimethylbenzene	813	217	µg/Kg dry	03/12/18 17:44	03/13/18 19:31	EPA 5035	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	235	217	µg/Kg dry	03/12/18 17:44	03/13/18 19:31	EPA 5035	EPA 8260 B	A	JMG	
Benzene	1580	217	µg/Kg dry	03/12/18 17:44	03/13/18 19:31	EPA 5035	EPA 8260 B	A	JMG	
Ethylbenzene	850	217	µg/Kg dry	03/12/18 17:44	03/13/18 19:31	EPA 5035	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	229	217	µg/Kg dry	03/12/18 17:44	03/13/18 19:31	EPA 5035	EPA 8260 B	A	JMG	
MTBE	<2.17	2.17	µg/Kg dry	03/12/18 17:44	03/12/18 17:44	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	224	217	µg/Kg dry	03/12/18 17:44	03/13/18 19:31	EPA 5035	EPA 8260 B	A	JMG	
Toluene	6360	217	µg/Kg dry	03/12/18 17:44	03/13/18 19:31	EPA 5035	EPA 8260 B	A	JMG	
Xylene o	1390	217	µg/Kg dry	03/12/18 17:44	03/13/18 19:31	EPA 5035	EPA 8260 B	A	JMG	
Xylene p/m	3300	433	µg/Kg dry	03/12/18 17:44	03/13/18 19:31	EPA 5035	EPA 8260 B	A	JMG	
Xylenes, Total	4690	650	µg/Kg dry	03/12/18 17:44	03/13/18 19:31	EPA 5035	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*80-120*	*03/12/18 17:44*	*03/12/18 17:44*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*95.8 %*	*80-120*	*03/12/18 17:44*	*03/12/18 17:44*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*111 %*	*80-120*	*03/12/18 17:44*	*03/12/18 17:44*	*EPA 8260 B*				
Surrogate: Toluene-d8		*93.8 %*	*80-120*	*03/12/18 17:44*	*03/12/18 17:44*	*EPA 8260 B*				

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

MOUNTAIN RESEARCH, LLC

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Fax (304) 930-1975

Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030327 **Reported:** 03/21/18 15:59

SB-7 (18.5 u)

8030327-02 (Solid) Sampled: 03/08/18 11:30

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	**93.7**	1.00	wt%	03/15/18 18:00	03/15/18 18:00		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										**O1**
1,2,4-Trimethylbenzene	<2.13	2.13	µg/Kg dry	03/13/18 16:27	03/13/18 16:27	EPA 5035	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.13	2.13	µg/Kg dry	03/13/18 16:27	03/13/18 16:27	EPA 5035	EPA 8260 B	A	JMG	
Benzene	<2.13	2.13	µg/Kg dry	03/13/18 16:27	03/13/18 16:27	EPA 5035	EPA 8260 B	A	JMG	
Ethylbenzene	<2.13	2.13	µg/Kg dry	03/13/18 16:27	03/13/18 16:27	EPA 5035	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.13	2.13	µg/Kg dry	03/13/18 16:27	03/13/18 16:27	EPA 5035	EPA 8260 B	A	JMG	
MTBE	**11.1**	2.13	µg/Kg dry	03/13/18 16:27	03/13/18 16:27	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	<2.13	2.13	µg/Kg dry	03/13/18 16:27	03/13/18 16:27	EPA 5035	EPA 8260 B	A	JMG	
Toluene	<2.13	2.13	µg/Kg dry	03/13/18 16:27	03/13/18 16:27	EPA 5035	EPA 8260 B	A	JMG	
Xylene o	<2.13	2.13	µg/Kg dry	03/13/18 16:27	03/13/18 16:27	EPA 5035	EPA 8260 B	A	JMG	
Xylene p/m	<4.27	4.27	µg/Kg dry	03/13/18 16:27	03/13/18 16:27	EPA 5035	EPA 8260 B	A	JMG	
Xylenes, Total	<6.40	6.40	µg/Kg dry	03/13/18 16:27	03/13/18 16:27	EPA 5035	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*106 %*	*80-120*	*03/13/18 16:27*	*03/13/18 16:27*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*99.1 %*	*80-120*	*03/13/18 16:27*	*03/13/18 16:27*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*113 %*	*80-120*	*03/13/18 16:27*	*03/13/18 16:27*	*EPA 8260 B*				
Surrogate: Toluene-d8		*97.7 %*	*80-120*	*03/13/18 16:27*	*03/13/18 16:27*	*EPA 8260 B*				

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030327 **Reported:** 03/21/18 15:59

SB-8 (9.5 u)

8030327-03 (Solid) Sampled: 03/08/18 13:15

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	92.9	1.00	wt%	03/15/18 18:00	03/15/18 18:00		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	15.3	2.15	µg/Kg dry	03/12/18 18:40	03/12/18 18:40	EPA 5035	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	4.35	2.15	µg/Kg dry	03/12/18 18:40	03/12/18 18:40	EPA 5035	EPA 8260 B	A	JMG	
Benzene	22.5	2.15	µg/Kg dry	03/12/18 18:40	03/12/18 18:40	EPA 5035	EPA 8260 B	A	JMG	
Ethylbenzene	17.1	2.15	µg/Kg dry	03/12/18 18:40	03/12/18 18:40	EPA 5035	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.15	2.15	µg/Kg dry	03/12/18 18:40	03/12/18 18:40	EPA 5035	EPA 8260 B	A	JMG	
MTBE	<2.15	2.15	µg/Kg dry	03/12/18 18:40	03/12/18 18:40	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	9.66	2.15	µg/Kg dry	03/12/18 18:40	03/12/18 18:40	EPA 5035	EPA 8260 B	A	JMG	
Toluene	560	215	µg/Kg dry	03/12/18 18:40	03/13/18 18:39	EPA 5035	EPA 8260 B	A	JMG	
Xylene o	38.0	2.15	µg/Kg dry	03/12/18 18:40	03/12/18 18:40	EPA 5035	EPA 8260 B	A	JMG	
Xylene p/m	86.9	4.31	µg/Kg dry	03/12/18 18:40	03/12/18 18:40	EPA 5035	EPA 8260 B	A	JMG	
Xylenes, Total	125	6.46	µg/Kg dry	03/12/18 18:40	03/12/18 18:40	EPA 5035	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*108 %*	*80-120*	*03/12/18 18:40*	*03/12/18 18:40*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*100 %*	*80-120*	*03/12/18 18:40*	*03/12/18 18:40*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*116 %*	*80-120*	*03/12/18 18:40*	*03/12/18 18:40*	*EPA 8260 B*				
Surrogate: Toluene-d8		*97.6 %*	*80-120*	*03/12/18 18:40*	*03/12/18 18:40*	*EPA 8260 B*				

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030327 **Reported:** 03/21/18 15:59

SB-8 (12.0 u)

8030327-04 (Solid) Sampled: 03/08/18 13:15

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	95.8	1.00	wt%	03/15/18 18:00	03/15/18 18:00		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										O1
1,2,4-Trimethylbenzene	1260	209	µg/Kg dry	03/12/18 19:07	03/13/18 19:05	EPA 5035	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	41.8	2.09	µg/Kg dry	03/12/18 19:07	03/12/18 19:07	EPA 5035	EPA 8260 B	A	JMG	
Benzene	44.0	2.09	µg/Kg dry	03/12/18 19:07	03/12/18 19:07	EPA 5035	EPA 8260 B	A	JMG	
Ethylbenzene	57.5	2.09	µg/Kg dry	03/12/18 19:07	03/12/18 19:07	EPA 5035	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	13.4	2.09	µg/Kg dry	03/12/18 19:07	03/12/18 19:07	EPA 5035	EPA 8260 B	A	JMG	
MTBE	<2.09	2.09	µg/Kg dry	03/12/18 19:07	03/12/18 19:07	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	15.6	2.09	µg/Kg dry	03/12/18 19:07	03/12/18 19:07	EPA 5035	EPA 8260 B	A	JMG	
Toluene	1870	209	µg/Kg dry	03/12/18 19:07	03/13/18 19:05	EPA 5035	EPA 8260 B	A	JMG	
Xylene o	801	209	µg/Kg dry	03/12/18 19:07	03/13/18 19:05	EPA 5035	EPA 8260 B	A	JMG	
Xylene p/m	1820	418	µg/Kg dry	03/12/18 19:07	03/13/18 19:05	EPA 5035	EPA 8260 B	A	JMG	
Xylenes, Total	2620	626	µg/Kg dry	03/12/18 19:07	03/13/18 19:05	EPA 5035	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*80-120*	*03/12/18 19:07*	*03/12/18 19:07*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*98.2 %*	*80-120*	*03/12/18 19:07*	*03/12/18 19:07*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*115 %*	*80-120*	*03/12/18 19:07*	*03/12/18 19:07*	*EPA 8260 B*				
Surrogate: Toluene-d8		*98.1 %*	*80-120*	*03/12/18 19:07*	*03/12/18 19:07*	*EPA 8260 B*				

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030327 **Reported:** 03/21/18 15:59

SB-9 (6.5 u)

8030327-05 (Solid) Sampled: 03/08/18 16:40

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	81.9	1.00	wt%	03/15/18 18:00	03/15/18 18:00		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										O1
1,2,4-Trimethylbenzene	59800	2440	µg/Kg dry	03/12/18 23:58	03/12/18 23:58	EPA 5035	EPA 8260 B	A	JMG	D1
1,3,5-Trimethylbenzene	10100	2440	µg/Kg dry	03/12/18 23:58	03/12/18 23:58	EPA 5035	EPA 8260 B	A	JMG	D1
Benzene	9440	2440	µg/Kg dry	03/12/18 23:58	03/12/18 23:58	EPA 5035	EPA 8260 B	A	JMG	D1
Ethylbenzene	24600	2440	µg/Kg dry	03/12/18 23:58	03/12/18 23:58	EPA 5035	EPA 8260 B	A	JMG	D1
Isopropylbenzene (Cumene)	4820	2440	µg/Kg dry	03/12/18 23:58	03/12/18 23:58	EPA 5035	EPA 8260 B	A	JMG	D1
MTBE	<2440	2440	µg/Kg dry	03/12/18 23:58	03/12/18 23:58	EPA 5035	EPA 8260 B	A	JMG	D1
Naphthalene	14000	2440	µg/Kg dry	03/12/18 23:58	03/12/18 23:58	EPA 5035	EPA 8260 B	A	JMG	D1
Toluene	115000	2440	µg/Kg dry	03/12/18 23:58	03/12/18 23:58	EPA 5035	EPA 8260 B	A	JMG	D1
Xylene o	35400	2440	µg/Kg dry	03/12/18 23:58	03/12/18 23:58	EPA 5035	EPA 8260 B	A	JMG	D1
Xylene p/m	92400	4890	µg/Kg dry	03/12/18 23:58	03/12/18 23:58	EPA 5035	EPA 8260 B	A	JMG	D1
Xylenes, Total	128000	7330	µg/Kg dry	03/12/18 23:58	03/12/18 23:58	EPA 5035	EPA 8260 B	A	JMG	CC, D1
Surrogate: 1,2-Dichloroethane-d4		*107 %*	*80-120*	*03/12/18 23:58*	*03/12/18 23:58*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*93.0 %*	*80-120*	*03/12/18 23:58*	*03/12/18 23:58*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*102 %*	*80-120*	*03/12/18 23:58*	*03/12/18 23:58*	*EPA 8260 B*				
Surrogate: Toluene-d8		*96.5 %*	*80-120*	*03/12/18 23:58*	*03/12/18 23:58*	*EPA 8260 B*				

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030327 **Reported:** 03/21/18 15:59

SB-9 (11.5 u)

8030327-06 (Solid) Sampled: 03/08/18 16:40

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	94.3	1.00	wt%	03/15/18 18:00	03/15/18 18:00		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										O1
1,2,4-Trimethylbenzene	5950	212	µg/Kg dry	03/12/18 19:35	03/13/18 19:58	EPA 5035	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	896	212	µg/Kg dry	03/12/18 19:35	03/13/18 19:58	EPA 5035	EPA 8260 B	A	JMG	
Benzene	86.3	2.12	µg/Kg dry	03/12/18 19:35	03/12/18 19:35	EPA 5035	EPA 8260 B	A	JMG	
Ethylbenzene	1310	212	µg/Kg dry	03/12/18 19:35	03/13/18 19:58	EPA 5035	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	57.0	2.12	µg/Kg dry	03/12/18 19:35	03/12/18 19:35	EPA 5035	EPA 8260 B	A	JMG	
MTBE	4.38	2.12	µg/Kg dry	03/12/18 19:35	03/12/18 19:35	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	1730	212	µg/Kg dry	03/12/18 19:35	03/13/18 19:58	EPA 5035	EPA 8260 B	A	JMG	
Toluene	3030	212	µg/Kg dry	03/12/18 19:35	03/13/18 19:58	EPA 5035	EPA 8260 B	A	JMG	
Xylene o	2020	212	µg/Kg dry	03/12/18 19:35	03/13/18 19:58	EPA 5035	EPA 8260 B	A	JMG	
Xylene p/m	5040	424	µg/Kg dry	03/12/18 19:35	03/13/18 19:58	EPA 5035	EPA 8260 B	A	JMG	
Xylenes, Total	7060	636	µg/Kg dry	03/12/18 19:35	03/13/18 19:58	EPA 5035	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*80-120*	*03/12/18 19:35*	*03/12/18 19:35*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*97.4 %*	*80-120*	*03/12/18 19:35*	*03/12/18 19:35*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*109 %*	*80-120*	*03/12/18 19:35*	*03/12/18 19:35*	*EPA 8260 B*				
Surrogate: Toluene-d8		*97.4 %*	*80-120*	*03/12/18 19:35*	*03/12/18 19:35*	*EPA 8260 B*				

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030327 **Reported:** 03/21/18 15:59

SB-10 (5.0 u)

8030327-07 (Solid) Sampled: 03/09/18 11:45

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	95.6	1.00	wt%	03/15/18 18:00	03/15/18 18:00		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	46.7	2.09	µg/Kg dry	03/14/18 16:41	03/14/18 16:41	EPA 5035	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	12.4	2.09	µg/Kg dry	03/14/18 16:41	03/14/18 16:41	EPA 5035	EPA 8260 B	A	JMG	
Benzene	4.22	2.09	µg/Kg dry	03/14/18 16:41	03/14/18 16:41	EPA 5035	EPA 8260 B	A	JMG	
Ethylbenzene	23.6	2.09	µg/Kg dry	03/14/18 16:41	03/14/18 16:41	EPA 5035	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	6.12	2.09	µg/Kg dry	03/14/18 16:41	03/14/18 16:41	EPA 5035	EPA 8260 B	A	JMG	
MTBE	<2.09	2.09	µg/Kg dry	03/14/18 16:41	03/14/18 16:41	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	54.8	2.09	µg/Kg dry	03/14/18 16:41	03/15/18 15:51	EPA 5035	EPA 8260 B	A	JMG	
Toluene	74.6	2.09	µg/Kg dry	03/14/18 16:41	03/14/18 16:41	EPA 5035	EPA 8260 B	A	JMG	
Xylene o	40.0	2.09	µg/Kg dry	03/14/18 16:41	03/14/18 16:41	EPA 5035	EPA 8260 B	A	JMG	
Xylene p/m	95.8	4.18	µg/Kg dry	03/14/18 16:41	03/14/18 16:41	EPA 5035	EPA 8260 B	A	JMG	
Xylenes, Total	136	6.28	µg/Kg dry	03/14/18 16:41	03/14/18 16:41	EPA 5035	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*107 %*	*80-120*	*03/14/18 16:41*	*03/14/18 16:41*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*96.3 %*	*80-120*	*03/14/18 16:41*	*03/14/18 16:41*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*102 %*	*80-120*	*03/14/18 16:41*	*03/14/18 16:41*	*EPA 8260 B*				
Surrogate: Toluene-d8		*98.3 %*	*80-120*	*03/14/18 16:41*	*03/14/18 16:41*	*EPA 8260 B*				

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030327 **Reported:** 03/21/18 15:59

Trip Blank

8030327-08 (Aqueous) Sampled: 03/08/18 06:30

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	<2.00	2.00	µg/L	03/13/18 15:59	03/13/18 15:59	EPA 5030B	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	µg/L	03/13/18 15:59	03/13/18 15:59	EPA 5030B	EPA 8260 B	A	JMG	
Benzene	<2.00	2.00	µg/L	03/13/18 15:59	03/13/18 15:59	EPA 5030B	EPA 8260 B	A	JMG	
Ethylbenzene	<2.00	2.00	µg/L	03/13/18 15:59	03/13/18 15:59	EPA 5030B	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	µg/L	03/13/18 15:59	03/13/18 15:59	EPA 5030B	EPA 8260 B	A	JMG	
MTBE	<2.00	2.00	µg/L	03/13/18 15:59	03/13/18 15:59	EPA 5030B	EPA 8260 B	A	JMG	
Naphthalene	<2.00	2.00	µg/L	03/13/18 15:59	03/13/18 15:59	EPA 5030B	EPA 8260 B	A	JMG	
Toluene	<2.00	2.00	µg/L	03/13/18 15:59	03/13/18 15:59	EPA 5030B	EPA 8260 B	A	JMG	
Xylene o	<2.00	2.00	µg/L	03/13/18 15:59	03/13/18 15:59	EPA 5030B	EPA 8260 B	A	JMG	
Xylene p/m	<4.00	4.00	µg/L	03/13/18 15:59	03/13/18 15:59	EPA 5030B	EPA 8260 B	A	JMG	
Xylenes, Total	<6.00	6.00	µg/L	03/13/18 15:59	03/13/18 15:59	EPA 5030B	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*112 %*	*80-120*	*03/13/18 15:59*	*03/13/18 15:59*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*92.9 %*	*80-120*	*03/13/18 15:59*	*03/13/18 15:59*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*106 %*	*80-120*	*03/13/18 15:59*	*03/13/18 15:59*	*EPA 8260 B*				
Surrogate: Toluene-d8		*98.2 %*	*80-120*	*03/13/18 15:59*	*03/13/18 15:59*	*EPA 8260 B*				

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

MOUNTAIN RESEARCH, LLC

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030327 **Reported:** 03/21/18 15:59

Equipment Blank

8030327-09 (Aqueous) Sampled: 03/08/18 10:00

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	<2.00	2.00	µg/L	03/12/18 16:49	03/12/18 16:49	EPA 5030B	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	µg/L	03/12/18 16:49	03/12/18 16:49	EPA 5030B	EPA 8260 B	A	JMG	
Benzene	<2.00	2.00	µg/L	03/12/18 16:49	03/12/18 16:49	EPA 5030B	EPA 8260 B	A	JMG	
Ethylbenzene	<2.00	2.00	µg/L	03/12/18 16:49	03/12/18 16:49	EPA 5030B	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	µg/L	03/12/18 16:49	03/12/18 16:49	EPA 5030B	EPA 8260 B	A	JMG	
MTBE	<2.00	2.00	µg/L	03/12/18 16:49	03/12/18 16:49	EPA 5030B	EPA 8260 B	A	JMG	
Naphthalene	<2.00	2.00	µg/L	03/12/18 16:49	03/12/18 16:49	EPA 5030B	EPA 8260 B	A	JMG	
Toluene	<2.00	2.00	µg/L	03/12/18 16:49	03/12/18 16:49	EPA 5030B	EPA 8260 B	A	JMG	
Xylene o	<2.00	2.00	µg/L	03/12/18 16:49	03/12/18 16:49	EPA 5030B	EPA 8260 B	A	JMG	
Xylene p/m	<4.00	4.00	µg/L	03/12/18 16:49	03/12/18 16:49	EPA 5030B	EPA 8260 B	A	JMG	
Xylenes, Total	<6.00	6.00	µg/L	03/12/18 16:49	03/12/18 16:49	EPA 5030B	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*109 %*	*80-120*	*03/12/18 16:49*	*03/12/18 16:49*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*93.6 %*	*80-120*	*03/12/18 16:49*	*03/12/18 16:49*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*110 %*	*80-120*	*03/12/18 16:49*	*03/12/18 16:49*	*EPA 8260 B*				
Surrogate: Toluene-d8		*97.0 %*	*80-120*	*03/12/18 16:49*	*03/12/18 16:49*	*EPA 8260 B*				

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Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030327 **Reported:** 03/21/18 15:59

Blind Duplicate

8030327-10 (Solid) Sampled: 03/08/18 00:00

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	**93.7**	1.00	wt%	03/15/18 18:00	03/15/18 18:00		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										**O1**
1,2,4-Trimethylbenzene	<2.13	2.13	µg/Kg dry	03/13/18 16:54	03/13/18 16:54	EPA 5035	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.13	2.13	µg/Kg dry	03/13/18 16:54	03/13/18 16:54	EPA 5035	EPA 8260 B	A	JMG	
Benzene	<2.13	2.13	µg/Kg dry	03/13/18 16:54	03/13/18 16:54	EPA 5035	EPA 8260 B	A	JMG	
Ethylbenzene	<2.13	2.13	µg/Kg dry	03/13/18 16:54	03/13/18 16:54	EPA 5035	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.13	2.13	µg/Kg dry	03/13/18 16:54	03/13/18 16:54	EPA 5035	EPA 8260 B	A	JMG	
MTBE	**17.3**	2.13	µg/Kg dry	03/13/18 16:54	03/13/18 16:54	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	<2.13	2.13	µg/Kg dry	03/13/18 16:54	03/13/18 16:54	EPA 5035	EPA 8260 B	A	JMG	
Toluene	<2.13	2.13	µg/Kg dry	03/13/18 16:54	03/13/18 16:54	EPA 5035	EPA 8260 B	A	JMG	
Xylene o	<2.13	2.13	µg/Kg dry	03/13/18 16:54	03/13/18 16:54	EPA 5035	EPA 8260 B	A	JMG	
Xylene p/m	<4.27	4.27	µg/Kg dry	03/13/18 16:54	03/13/18 16:54	EPA 5035	EPA 8260 B	A	JMG	
Xylenes, Total	<6.40	6.40	µg/Kg dry	03/13/18 16:54	03/13/18 16:54	EPA 5035	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*109 %*	*80-120*	*03/13/18 16:54*	*03/13/18 16:54*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*98.3 %*	*80-120*	*03/13/18 16:54*	*03/13/18 16:54*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*112 %*	*80-120*	*03/13/18 16:54*	*03/13/18 16:54*	*EPA 8260 B*				
Surrogate: Toluene-d8		*98.8 %*	*80-120*	*03/13/18 16:54*	*03/13/18 16:54*	*EPA 8260 B*				

Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030327 **Reported:** 03/21/18 15:59

Certifications

Code	Description	Number	Expires
MDDOE	Maryland Department of the Environment	257	06/30/2018
PADEP-Altoona	Pennsylvania Department of Environmental Protection	009	03/31/2018
WVDEP-Altoona	West Virginia Department of Environmental Protection	225	12/31/2018
PADEP-DuBois	Pennsylvania Department of Environmental Protection	008	09/30/2018
WVDEP-HydroChem	West Virginia Department of Environmental Protection	038	11/01/2018

Notes and Definitions

O1	The VOC vial contained an amount of soil outside the EPA recommendation.
D1	The sample was analyzed at a dilution.
CC	Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
RL	Reporting Limit - either the practical quantitation limit or the method detection limit
dry	Sample results reported on a dry weight basis
A	Analysis Performed by Mountain Research Altoona Laboratory - PADEP #07-00418, WVDEP #225
D	Analysis Performed by Mountain Research DuBois Laboratory - PADEP # 33-00258
W	Analysis Performed by Mountain Research - HydroChem Laboratory - WVDEP #038

Billing Group:	Phase:	PROJECT NAME: Well Drilling
MR Project #: 4923.18.01		SITE LOCATION: Woodland, PA
CLIENT: Woodland		SAMPLER(S): JC

MOUNTAIN RESEARCH LL

825 25th Street, Altoona, PA 16601 (814) 9

110 McCracken Run Road, Dubois, PA 15801 (814) 3

CHAIN OF CUSTODY RECORD

NOTES:

Received On Ice: (Y) / N

Sample Temp: 4.1 °C

PWSID #:

Comments:

Analyses Requested

SAMPLE ID	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	% Total Solids	8260B Low Level	8260B	Preserve	LAB NUMBER
SB-7 (15.0U)	3-8-18	1130	X		Soil	1 4oz JAR		X			None	-01
						3 40ml VOA	ZA		X		Na4SO2	
						1 40ml VOA	ZA			X	MeOH	
SB-7(18.5U)						1 4oz JAR		X			None	-02
						3 40ml VOA	ZA		X		Na4SO2	
						1 40ml VOA	ZA			X	MeOH	
SB-8(9.5U)		1315				1 4oz JAR		X			None	-03
						3 40ml VOA	ZA		X		Na4SO2	
						1 40ml VOA	ZA			X	MeOH	
SB-8(12.0U)						1 4oz JAR		X			None	-04
						3 40ml VOA	ZA		X		Na4SO2	
						1 40ml VOA	ZA			X	MeOH	

MR PROJ. MGR. GL

Shipping Carrier:

Turn Around Time:
10 Day X
3 Day
1 Day

Comments:

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Lab Workorder #:	Log In Time: 1309
[signature]	3-8-18	1426	[signature]	14:26 3-9-18	8030327	Staff: JSA
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Labeled By:	Date: 3/12/18

Page 14 of 17

Pg 1 of 3

Billing Group:	Phase:	PROJECT NAME: Well Drilling
MR Project #: 4923.18.01		SITE LOCATION: Woodland, PA
CLIENT: Woodland		SAMPLER(S): JC

NOTES:

Received On Ice: (Y) / N

Sample Temp: 4.1

PWSID #:

Comments:

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CHAIN OF CUSTODY RECORD

MR PROJ. MGR. GC

Shipping Carrier:

Turn Around Time:
10 Day X
3 Day
1 Day

Comments:

Analyses Requested

SAMPLE ID	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	% Total Solids	8260B Low Level	8260B	Preserve	LAB NUMBER
SB-9 (6.5U)	3-8-18	1640	X		Soil	1 4oz JAR		X			None	-05
						3 40 ml VOA	2A		X		Na4SO2	
						1 40ml VOA	2A			X	MeOH	
SB-9 (11.5U)						1 4oz JAR		X			None	-06
						3 40ml VOA	2A		X		Na4SO2	
						1 40ml VOA	2A			X	MeOH	
SB-10 (5.0U)	3-9-18	1145	X		Soil	1 4oz JAR		X			None	-07
						3 40ml VOA	2A		X		Na4SO2	
						1 40ml VOA	2A			X	MeOH	

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Lab Workorder #:	Log In Time: 1309
[signature]	3-8-18	1426	[signature]	1426 3-9-18	8030327	Staff: JSA
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Labeled By:	Date: 3/12/18

PG 2 of 3

Billing Group:	Phase:	PROJECT NAME: Well Drilling
MR Project #: 4923.18.01		SITE LOCATION: Woodland, PA
CLIENT: Woodland		SAMPLER(S): JC

NOTES:

Received On Ice: Y / N

Sample Temp: _____

PWSID #: _____

Comments: _____

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CHAIN OF CUSTODY RECORD

MR PROJ. MGR. GL

Shipping Carrier: _____

Turn Around Time:
10 Day X
3 Day
1 Day

Comments:

SAMPLE ID	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	% Total Solids	8260B Low Level	Preserve	LAB NUMBER
Trip Blank	3-8-18	0630	X		AQ	2 40ml VOA	ZA	X			HCL	-08
Equipment Blank		1000			AQ	2 40ml VOA	ZA	X			HCl	-09
Blind Duplicate					Soil	1 4oz JAR			X		None	-10
						3 40ml VOA	ZA			X	Na_2SO_2	
						1 40ml VOA	ZA	X			MeOH	

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Lab Workorder #:	Log In Time:
[signature]	3-8-18	1428	[signature]	14:26 3-9-18	8030327	1304
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Labeled By:	Staff: JSA
						Date: 3/12/18

Pg 3 of 3

MOUNTAIN RESEARCH SAMPLE RECEIPT PROTOCOL

WORK ORDER: 8030327

CLIENT: Woodland

DATE SAMPLED: 3/8/18 DATE RECEIVED: 3/8/18 TIME RECEIVED: 4:26

1. CHECK ALL THAT APPLY: PA ☑ WV ☐ MD ☐ P W S ☐ NPDES/COMPLIANCE ☐ DAIRY ☐ RUSH ☐

2. WERE ANY OF THE SAMPLE CONTAINERS DAMAGED/LEAKING? (ARE CUSTODY SEALS BROKEN?) YES ☑ NO ☐

IF YES, EXPLAIN: _____

3. NUMBER OF CONTAINERS RECEIVED: 44

4. WERE THE SAMPLES RECEIVED ON ICE/OTHER ACCEPTABLE REFRIGERANT? YES ☑ NO ☐

IF NO, EXPLAIN: _____

5. RECEIVING TEMP: 4.1 °C TEMP CONTROL(S) PRESENT YES ☐ NO ☐ BOTTLE(S) TEMPED: _____

6. WERE THE SAMPLES PROPERLY PRESERVED? YES ☑ NO ☐

IF NO, EXPLAIN: _____

7. WERE THE SAMPLES COLLECTED IN THE CORRECT CONTAINERS? YES ☑ NO ☐

IF NO, EXPLAIN: _____

8. IS THERE HEADSPACE PRESENT FOR VOLATILES/ODOR SAMPLES? YES ☐ NO ☑ N/A ☐

9. WAS THE COC FILLED OUT PROPERLY? YES ☑ NO ☐

IF NO, EXPLAIN: _____

10. DID THE SAMPLE LABEL(S) CONTAIN ADEQUATE INFO? (CLIENT/DATE/TIME/PRESERVATIVE) YES ☑ NO ☐

IF NO, EXPLAIN: _____

11. WERE ANY OF THE SAMPLES RECEIVED OUTSIDE OF HOLDING TIME? YES ☐ NO ☑

IF YES, EXPLAIN: _____

12. DO THE SAMPLES REQUIRE ANALYSES THAT HAVE A SHORT HOLDING TIME? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____ **PLEASE NOTIFY LABORATORY ANALYSTS!**

13. IS SUBCONTRACTING REQUIRED? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____

14. WAS THE CLIENT CONTACTED? YES ☐ NO ☑ IF YES, FILL OUT THE FOLLOWING:

MR EMPLOYEE INITIALS: CLIENT SPOKEN TO: DATE/TIME:

OUTCOME:

SIGNATURE: K Dehne

L60.30.A r2 Sample Receipt Form

For MR Use Only

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21 March 2018

Lab ID #: 8030336

Dave Panasiti
Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland, PA 16881

RE: Woodland, PA

Enclosed are the results of analyses for samples received by the laboratory on 03/13/18 07:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stephen Gampe

Stephen Gampe
Assistant Laboratory Manager

Authorized Reviewer

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030336 **Reported:** 03/21/18 16:27

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
SB-2 (9.0' U)	8030336-01	Solid	Grab	03/12/18 13:10	03/13/18 07:30
SB-6 (13.0' U)	8030336-02	Solid	Grab	03/12/18 14:15	03/13/18 07:30
SB-6 (14.5' U)	8030336-03	Solid	Grab	03/12/18 14:15	03/13/18 07:30

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030336 **Reported:** 03/21/18 16:27

SB-2 (9.0' U)

8030336-01 (Solid) Sampled: 03/12/18 13:10

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	**92.1**	1.00	wt%	03/15/18 18:00	03/15/18 18:00		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										**O1**
1,2,4-Trimethylbenzene	<2.17	2.17	µg/Kg dry	03/14/18 15:19	03/14/18 15:19	EPA 5035	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.17	2.17	µg/Kg dry	03/14/18 15:19	03/14/18 15:19	EPA 5035	EPA 8260 B	A	JMG	
Benzene	<2.17	2.17	µg/Kg dry	03/14/18 15:19	03/14/18 15:19	EPA 5035	EPA 8260 B	A	JMG	
Ethylbenzene	<2.17	2.17	µg/Kg dry	03/14/18 15:19	03/14/18 15:19	EPA 5035	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.17	2.17	µg/Kg dry	03/14/18 15:19	03/14/18 15:19	EPA 5035	EPA 8260 B	A	JMG	
MTBE	<2.17	2.17	µg/Kg dry	03/14/18 15:19	03/14/18 15:19	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	<2.17	2.17	µg/Kg dry	03/14/18 15:19	03/14/18 15:19	EPA 5035	EPA 8260 B	A	JMG	L
Toluene	**5.04**	2.17	µg/Kg dry	03/14/18 15:19	03/14/18 15:19	EPA 5035	EPA 8260 B	A	JMG	
Xylene o	<2.17	2.17	µg/Kg dry	03/14/18 15:19	03/14/18 15:19	EPA 5035	EPA 8260 B	A	JMG	
Xylene p/m	<4.34	4.34	µg/Kg dry	03/14/18 15:19	03/14/18 15:19	EPA 5035	EPA 8260 B	A	JMG	
Xylenes, Total	<6.52	6.52	µg/Kg dry	03/14/18 15:19	03/14/18 15:19	EPA 5035	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*80-120*	*03/14/18 15:19*	*03/14/18 15:19*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*99.5 %*	*80-120*	*03/14/18 15:19*	*03/14/18 15:19*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*111 %*	*80-120*	*03/14/18 15:19*	*03/14/18 15:19*	*EPA 8260 B*				
Surrogate: Toluene-d8		*97.5 %*	*80-120*	*03/14/18 15:19*	*03/14/18 15:19*	*EPA 8260 B*				

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030336 **Reported:** 03/21/18 16:27

SB-6 (13.0' U)

8030336-02 (Solid) Sampled: 03/12/18 14:15

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	96.7	1.00	wt%	03/15/18 18:00	03/15/18 18:00		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										O1
1,2,4-Trimethylbenzene	<2.07	2.07	µg/Kg dry	03/14/18 15:46	03/14/18 15:46	EPA 5035	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.07	2.07	µg/Kg dry	03/14/18 15:46	03/14/18 15:46	EPA 5035	EPA 8260 B	A	JMG	
Benzene	<2.07	2.07	µg/Kg dry	03/14/18 15:46	03/14/18 15:46	EPA 5035	EPA 8260 B	A	JMG	
Ethylbenzene	<2.07	2.07	µg/Kg dry	03/14/18 15:46	03/14/18 15:46	EPA 5035	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.07	2.07	µg/Kg dry	03/14/18 15:46	03/14/18 15:46	EPA 5035	EPA 8260 B	A	JMG	
MTBE	<2.07	2.07	µg/Kg dry	03/14/18 15:46	03/14/18 15:46	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	<2.07	2.07	µg/Kg dry	03/14/18 15:46	03/14/18 15:46	EPA 5035	EPA 8260 B	A	JMG	L
Toluene	<2.07	2.07	µg/Kg dry	03/14/18 15:46	03/14/18 15:46	EPA 5035	EPA 8260 B	A	JMG	
Xylene o	<2.07	2.07	µg/Kg dry	03/14/18 15:46	03/14/18 15:46	EPA 5035	EPA 8260 B	A	JMG	
Xylene p/m	<4.14	4.14	µg/Kg dry	03/14/18 15:46	03/14/18 15:46	EPA 5035	EPA 8260 B	A	JMG	
Xylenes, Total	<6.20	6.20	µg/Kg dry	03/14/18 15:46	03/14/18 15:46	EPA 5035	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*114 %*	*80-120*	*03/14/18 15:46*	*03/14/18 15:46*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*101 %*	*80-120*	*03/14/18 15:46*	*03/14/18 15:46*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*113 %*	*80-120*	*03/14/18 15:46*	*03/14/18 15:46*	*EPA 8260 B*				
Surrogate: Toluene-d8		*100 %*	*80-120*	*03/14/18 15:46*	*03/14/18 15:46*	*EPA 8260 B*				

Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	**Lab ID#:** 8030336
2829 Woodland Bigler Highway	Project Number: 4923.18.01	**Reported:**
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	03/21/18 16:27

SB-6 (14.5' U)

8030336-03 (Solid) Sampled: 03/12/18 14:15

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	**86.3**	1.00	wt%	03/15/18 18:00	03/15/18 18:00		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										O1
1,2,4-Trimethylbenzene	<2.32	2.32	µg/Kg dry	03/14/18 16:14	03/14/18 16:14	EPA 5035	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.32	2.32	µg/Kg dry	03/14/18 16:14	03/14/18 16:14	EPA 5035	EPA 8260 B	A	JMG	
Benzene	**7.06**	2.32	µg/Kg dry	03/14/18 16:14	03/14/18 16:14	EPA 5035	EPA 8260 B	A	JMG	
Ethylbenzene	<2.32	2.32	µg/Kg dry	03/14/18 16:14	03/14/18 16:14	EPA 5035	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.32	2.32	µg/Kg dry	03/14/18 16:14	03/14/18 16:14	EPA 5035	EPA 8260 B	A	JMG	
MTBE	<2.32	2.32	µg/Kg dry	03/14/18 16:14	03/14/18 16:14	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	<2.32	2.32	µg/Kg dry	03/14/18 16:14	03/14/18 16:14	EPA 5035	EPA 8260 B	A	JMG	L
Toluene	**19.8**	2.32	µg/Kg dry	03/14/18 16:14	03/14/18 16:14	EPA 5035	EPA 8260 B	A	JMG	
Xylene o	**9.17**	2.32	µg/Kg dry	03/14/18 16:14	03/14/18 16:14	EPA 5035	EPA 8260 B	A	JMG	
Xylene p/m	**15.9**	4.64	µg/Kg dry	03/14/18 16:14	03/14/18 16:14	EPA 5035	EPA 8260 B	A	JMG	
Xylenes, Total	**25.0**	6.95	µg/Kg dry	03/14/18 16:14	03/14/18 16:14	EPA 5035	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*106 %*	*80-120*	*03/14/18 16:14*	*03/14/18 16:14*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*97.9 %*	*80-120*	*03/14/18 16:14*	*03/14/18 16:14*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*114 %*	*80-120*	*03/14/18 16:14*	*03/14/18 16:14*	*EPA 8260 B*				
Surrogate: Toluene-d8		*98.0 %*	*80-120*	*03/14/18 16:14*	*03/14/18 16:14*	*EPA 8260 B*				

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030336 **Reported:** 03/21/18 16:27

Certifications

Code	Description	Number	Expires
MDDOE	Maryland Department of the Environment	257	06/30/2018
PADEP-Altoona	Pennsylvania Department of Environmental Protection	009	03/31/2018
WVDEP-Altoona	West Virginia Department of Environmental Protection	225	12/31/2018
PADEP-DuBois	Pennsylvania Department of Environmental Protection	008	09/30/2018
WVDEP-HydroChem	West Virginia Department of Environmental Protection	038	11/01/2018

Notes and Definitions

O1	The VOC vial contained an amount of soil outside the EPA recommendation.
L	The laboratory control spike did not meet laboratory acceptance criteria. The associated analytical results may be biased high.
CC	Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
RL	Reporting Limit - either the practical quantitation limit or the method detection limit
dry	Sample results reported on a dry weight basis
A	Analysis Performed by Mountain Research Altoona Laboratory - PADEP #07-00418, WVDEP #225
D	Analysis Performed by Mountain Research DuBois Laboratory - PADEP # 33-00258
W	Analysis Performed by Mountain Research - HydroChem Laboratory - WVDEP #038

Billing Group:	Phase:	PROJECT NAME: Well Drilling
MR Project #: 1723.R.01		SITE LOCATION: Woodlands, PA
CLIENT: Gio's Woodland		SAMPLER(S): JC

MOUNTAIN RESEARCH LLC
825 25th Street, Altoona, PA 16601 (814) 949-2034 (
110 McCracken Run Road, Dubois, PA 15801 (814) 371-6030 F

CHAIN OF CUSTODY RECORD

NOTES:
Received On Ice: (Y) / N
Sample Temp: 5.4
Comp Set
Comments:

MR PROJ. MGR. GL
Shipping Carrier:
Turn Around Time:
10 Day X
3 Day
1 Day
Comments:

SAMPLE ID	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	8260B Low Level	% Solids	Preserve	LAB NUMBER
SB-2-(9.0'U)	3-12-18	1310	X		Soil	1 4oz JAR				X	None	
						3 40ml VOA	2A		X		Na4SO2	01
						1 40ml VOA	2A	X			MeOH	
SB-6(13.0'U)		1415	X		Soil	1 4oz JAR				X	None	02
						3 40ml VOA	2A		X		Na4SO2	
						1 40ml VOA	2A	X			MeOH	
SB-6(14.5'U)						1 4oz JAR				X	None	
						3 40ml VOA	2A		X		Na4SO2	03
						1 40ml VOA	2A	X			MeOH	
						~~1 4oz JAR~~				~~X~~	~~None~~	
						~~3 40ml VOA~~	~~2A~~		~~X~~		~~Na4SO2~~	
						~~1 40ml VOA~~	~~2A~~	~~X~~			~~MeOH~~	

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Lab Workorder #:	Log In Time: 0824
[signature]	3-13-18	0600	[signature]	07:30 3-13-18	8030336	Staff: LEB
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Labeled By:	Date: 3/13/18

MOUNTAIN RESEARCH SAMPLE RECEIPT PROTOCOL

WORK ORDER: 80303336

CLIENT: Woodland

DATE SAMPLED: 3/12/18 DATE RECEIVED: 3/13/18 TIME RECEIVED: 07:38

1. CHECK ALL THAT APPLY: PA ☑ WV ☐ MD ☐ P W S ☐ NPDES/COMPLIANCE ☐ DAIRY ☐ RUSH ☐

2. WERE ANY OF THE SAMPLE CONTAINERS DAMAGED/LEAKING? (ARE CUSTODY SEALS BROKEN?) YES ☐ NO ☑

IF YES, EXPLAIN: _____

3. NUMBER OF CONTAINERS RECEIVED: 15

4. WERE THE SAMPLES RECEIVED ON ICE/OTHER ACCEPTABLE REFRIGERANT? YES ☑ NO ☐

IF NO, EXPLAIN: _____

5. RECEIVING TEMP: 5.4 °C TEMP CONTROL(S) PRESENT YES ☐ NO ☐ BOTTLE(S) TEMPED: _____

6. WERE THE SAMPLES PROPERLY PRESERVED? YES ☑ NO ☐

IF NO, EXPLAIN: _____

7. WERE THE SAMPLES COLLECTED IN THE CORRECT CONTAINERS? YES ☑ NO ☐

IF NO, EXPLAIN: _____

8. IS THERE HEADSPACE PRESENT FOR VOLATILES/ODOR SAMPLES? YES ☐ NO ☐ N/A ☑

9. WAS THE COC FILLED OUT PROPERLY? YES ☑ NO ☐

IF NO, EXPLAIN: _____

10. DID THE SAMPLE LABEL(S) CONTAIN ADEQUATE INFO? (CLIENT/DATE/TIME/PRESERVATIVE) YES ☑ NO ☐

IF NO, EXPLAIN: _____

11. WERE ANY OF THE SAMPLES RECEIVED OUTSIDE OF HOLDING TIME? YES ☐ NO ☑

IF YES, EXPLAIN: _____

12. DO THE SAMPLES REQUIRE ANALYSES THAT HAVE A SHORT HOLDING TIME? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____ **PLEASE NOTIFY LABORATORY ANALYSTS!**

13. IS SUBCONTRACTING REQUIRED? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____

14. WAS THE CLIENT CONTACTED? YES ☐ NO ☑ IF YES, FILL OUT THE FOLLOWING:

MR EMPLOYEE INITIALS: CLIENT SPOKEN TO: DATE/TIME:

OUTCOME:

SIGNATURE: K Dorr

L60.30.A r2 Sample Receipt Form

For MR Use Only

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25 July 2018

Lab ID #: 8070363

Dave Panasiti
Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland, PA 16881

RE: Woodland, PA

Enclosed are the results of analyses for samples received by the laboratory on 07/11/18 15:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stephen Gampe

Stephen Gampe
Assistant Laboratory Manager

Authorized Reviewer

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8070363 **Reported:** 07/25/18 15:02

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
SB-10 (2.0)	8070363-01	Solid	Grab	07/11/18 13:00	07/11/18 15:15
SB-10 (6.0)	8070363-02	Solid	Grab	07/11/18 13:00	07/11/18 15:15
SB-11 (2.0)	8070363-03	Solid	Grab	07/11/18 12:15	07/11/18 15:15
SB-11 (6.0)	8070363-04	Solid	Grab	07/11/18 12:15	07/11/18 15:15

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8070363 **Reported:** 07/25/18 15:02

SB-10 (2.0)

8070363-01 (Solid) Sampled: 07/11/18 13:00

Mountain Research, LLC

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
General Chemistry										
Total Solids	93.8	1.00	wt%	07/13/18 15:30	07/13/18 15:30		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										O1
1,2,4-Trimethylbenzene	<2.13	2.13	µg/Kg dry	07/13/18 16:45	07/13/18 16:45	EPA 5035	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.13	2.13	µg/Kg dry	07/13/18 16:45	07/13/18 16:45	EPA 5035	EPA 8260 B	A	JMG	
Benzene	<2.13	2.13	µg/Kg dry	07/13/18 16:45	07/13/18 16:45	EPA 5035	EPA 8260 B	A	JMG	
Ethylbenzene	<2.13	2.13	µg/Kg dry	07/13/18 16:45	07/13/18 16:45	EPA 5035	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.13	2.13	µg/Kg dry	07/13/18 16:45	07/13/18 16:45	EPA 5035	EPA 8260 B	A	JMG	
MTBE	<2.13	2.13	µg/Kg dry	07/13/18 16:45	07/13/18 16:45	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	<2.13	2.13	µg/Kg dry	07/13/18 16:45	07/13/18 16:45	EPA 5035	EPA 8260 B	A	JMG	
Toluene	<2.13	2.13	µg/Kg dry	07/13/18 16:45	07/13/18 16:45	EPA 5035	EPA 8260 B	A	JMG	
Xylene o	<2.13	2.13	µg/Kg dry	07/13/18 16:45	07/13/18 16:45	EPA 5035	EPA 8260 B	A	JMG	
Xylene p/m	<4.26	4.26	µg/Kg dry	07/13/18 16:45	07/13/18 16:45	EPA 5035	EPA 8260 B	A	JMG	
Xylenes, Total	<6.40	6.40	µg/Kg dry	07/13/18 16:45	07/13/18 16:45	EPA 5035	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*109 %*	*80-120*	*07/13/18 16:45*	*07/13/18 16:45*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*97.7 %*	*80-120*	*07/13/18 16:45*	*07/13/18 16:45*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*105 %*	*80-120*	*07/13/18 16:45*	*07/13/18 16:45*	*EPA 8260 B*				
Surrogate: Toluene-d8		*101 %*	*80-120*	*07/13/18 16:45*	*07/13/18 16:45*	*EPA 8260 B*				

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8070363 **Reported:** 07/25/18 15:02

SB-10 (6.0)

8070363-02 (Solid) Sampled: 07/11/18 13:00

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	**91.0**	1.00	wt%	07/13/18 15:30	07/13/18 15:30		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	<2.20	2.20	µg/Kg dry	07/13/18 17:12	07/13/18 17:12	EPA 5035	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.20	2.20	µg/Kg dry	07/13/18 17:12	07/13/18 17:12	EPA 5035	EPA 8260 B	A	JMG	
Benzene	**4.40**	2.20	µg/Kg dry	07/13/18 17:12	07/13/18 17:12	EPA 5035	EPA 8260 B	A	JMG	
Ethylbenzene	<2.20	2.20	µg/Kg dry	07/13/18 17:12	07/13/18 17:12	EPA 5035	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.20	2.20	µg/Kg dry	07/13/18 17:12	07/13/18 17:12	EPA 5035	EPA 8260 B	A	JMG	
MTBE	<2.20	2.20	µg/Kg dry	07/13/18 17:12	07/13/18 17:12	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	<2.20	2.20	µg/Kg dry	07/13/18 17:12	07/13/18 17:12	EPA 5035	EPA 8260 B	A	JMG	
Toluene	**31.6**	2.20	µg/Kg dry	07/13/18 17:12	07/13/18 17:12	EPA 5035	EPA 8260 B	A	JMG	
Xylene o	<2.20	2.20	µg/Kg dry	07/13/18 17:12	07/13/18 17:12	EPA 5035	EPA 8260 B	A	JMG	
Xylene p/m	**6.71**	4.40	µg/Kg dry	07/13/18 17:12	07/13/18 17:12	EPA 5035	EPA 8260 B	A	JMG	
Xylenes, Total	**6.71**	6.60	µg/Kg dry	07/13/18 17:12	07/13/18 17:12	EPA 5035	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*110 %*	*80-120*	*07/13/18 17:12*	*07/13/18 17:12*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*97.2 %*	*80-120*	*07/13/18 17:12*	*07/13/18 17:12*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*100 %*	*80-120*	*07/13/18 17:12*	*07/13/18 17:12*	*EPA 8260 B*				
Surrogate: Toluene-d8		*101 %*	*80-120*	*07/13/18 17:12*	*07/13/18 17:12*	*EPA 8260 B*				

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Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8070363 **Reported:** 07/25/18 15:02

SB-11 (2.0)

8070363-03 (Solid) Sampled: 07/11/18 12:15

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	**88.6**	1.00	wt%	07/13/18 15:30	07/13/18 15:30		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										**O1**
1,2,4-Trimethylbenzene	<2.26	2.26	µg/Kg dry	07/13/18 17:40	07/13/18 17:40	EPA 5035	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.26	2.26	µg/Kg dry	07/13/18 17:40	07/13/18 17:40	EPA 5035	EPA 8260 B	A	JMG	
Benzene	<2.26	2.26	µg/Kg dry	07/13/18 17:40	07/13/18 17:40	EPA 5035	EPA 8260 B	A	JMG	
Ethylbenzene	<2.26	2.26	µg/Kg dry	07/13/18 17:40	07/13/18 17:40	EPA 5035	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.26	2.26	µg/Kg dry	07/13/18 17:40	07/13/18 17:40	EPA 5035	EPA 8260 B	A	JMG	
MTBE	<2.26	2.26	µg/Kg dry	07/13/18 17:40	07/13/18 17:40	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	<2.26	2.26	µg/Kg dry	07/13/18 17:40	07/13/18 17:40	EPA 5035	EPA 8260 B	A	JMG	
Toluene	**5.54**	2.26	µg/Kg dry	07/13/18 17:40	07/13/18 17:40	EPA 5035	EPA 8260 B	A	JMG	
Xylene o	<2.26	2.26	µg/Kg dry	07/13/18 17:40	07/13/18 17:40	EPA 5035	EPA 8260 B	A	JMG	
Xylene p/m	<4.51	4.51	µg/Kg dry	07/13/18 17:40	07/13/18 17:40	EPA 5035	EPA 8260 B	A	JMG	
Xylenes, Total	<6.77	6.77	µg/Kg dry	07/13/18 17:40	07/13/18 17:40	EPA 5035	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*95.2 %*	*80-120*	*07/13/18 17:40*	*07/13/18 17:40*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*95.0 %*	*80-120*	*07/13/18 17:40*	*07/13/18 17:40*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*103 %*	*80-120*	*07/13/18 17:40*	*07/13/18 17:40*	*EPA 8260 B*				
Surrogate: Toluene-d8		*104 %*	*80-120*	*07/13/18 17:40*	*07/13/18 17:40*	*EPA 8260 B*				

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8070363 **Reported:** 07/25/18 15:02

SB-11 (6.0)

8070363-04 (Solid) Sampled: 07/11/18 12:15

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	94.0	1.00	wt%	07/13/18 15:30	07/13/18 15:30		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										O1
1,2,4-Trimethylbenzene	<2.13	2.13	µg/Kg dry	07/13/18 18:08	07/13/18 18:08	EPA 5035	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.13	2.13	µg/Kg dry	07/13/18 18:08	07/13/18 18:08	EPA 5035	EPA 8260 B	A	JMG	
Benzene	36.2	2.13	µg/Kg dry	07/13/18 18:08	07/13/18 18:08	EPA 5035	EPA 8260 B	A	JMG	
Ethylbenzene	7.22	2.13	µg/Kg dry	07/13/18 18:08	07/13/18 18:08	EPA 5035	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.13	2.13	µg/Kg dry	07/13/18 18:08	07/13/18 18:08	EPA 5035	EPA 8260 B	A	JMG	
MTBE	<2.13	2.13	µg/Kg dry	07/13/18 18:08	07/13/18 18:08	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	<2.13	2.13	µg/Kg dry	07/13/18 18:08	07/13/18 18:08	EPA 5035	EPA 8260 B	A	JMG	
Toluene	104	2.13	µg/Kg dry	07/13/18 18:08	07/13/18 18:08	EPA 5035	EPA 8260 B	A	JMG	
Xylene o	8.90	2.13	µg/Kg dry	07/13/18 18:08	07/13/18 18:08	EPA 5035	EPA 8260 B	A	JMG	
Xylene p/m	26.5	4.25	µg/Kg dry	07/13/18 18:08	07/13/18 18:08	EPA 5035	EPA 8260 B	A	JMG	
Xylenes, Total	35.4	6.38	µg/Kg dry	07/13/18 18:08	07/13/18 18:08	EPA 5035	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*106 %*	*80-120*	*07/13/18 18:08*	*07/13/18 18:08*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*97.0 %*	*80-120*	*07/13/18 18:08*	*07/13/18 18:08*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*99.3 %*	*80-120*	*07/13/18 18:08*	*07/13/18 18:08*	*EPA 8260 B*				
Surrogate: Toluene-d8		*99.6 %*	*80-120*	*07/13/18 18:08*	*07/13/18 18:08*	*EPA 8260 B*				

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8070363 **Reported:** 07/25/18 15:02

Certifications

Code	Description	Number	Expires
MDDOE	Maryland Department of the Environment	257	06/30/2018
PADEP-Altoona	Pennsylvania Department of Environmental Protection	009	03/31/2019
WVDEP-Altoona	West Virginia Department of Environmental Protection	225	12/31/2018
PADEP-DuBois	Pennsylvania Department of Environmental Protection	008	09/30/2018
WVDEP-HydroChem	West Virginia Department of Environmental Protection	038	11/01/2018

Notes and Definitions

O1	The VOC vial contained an amount of soil outside the EPA recommendation.
CC	Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
RL	Reporting Limit - either the practical quantitation limit or the method detection limit
dry	Sample results reported on a dry weight basis
A	Analysis Performed by Mountain Research Altoona Laboratory - PADEP #07-00418, WVDEP #225
D	Analysis Performed by Mountain Research DuBois Laboratory - PADEP # 33-00258
W	Analysis Performed by Mountain Research - HydroChem Laboratory - WVDEP #038

BALL POINT PEN ONLY

Billing Group:	Phase: SCR Drilling	PROJECT NAME Drilling
MR Project # 4923.18.01		SITE LOCATION Woodland, PA
CLIENT Woodland Food & Fuel		SAMPLER(S) AB

NOTES:
Received On Ice: (Y) N
Sample Temp: 4.8°C
PWSID #:
Seal In Pack: Y / N
Other:
Comments:

MOUNTAIN RESEARCH LLC
825 25th Street, Altoona, PA 16601 (814) 949-2034 (800)
110 McCracken Run Road, Dubois, PA 15801 (814) 371-6030 Fax (

CHAIN OF CUSTODY RECORD

MR PROJ. MGR. GL

Shipping Carrier:

Turn Around Time:
10 Day X
3 Day
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	8260B Low Levels	Total Solids					Preserve	LAB NUMBER
SB-10(2')	7/11/18	1300	X		Soil	1 40 mL VOA	2A	X							MeOH	01
						3 40 mL VOA	2A		X						NaHSO4	
						1 4 oz Jar				X					None	
SB-10(6')						1 40 mL VOA	2A	X							MeOH	02
						3 40 mL VOA	2A		X						NaHSO4	
						1 4 oz Jar				X					None	
SB-11(2')		1215				1 40 mL VOA	2A	X							MeOH	03
						3 40 mL VOA	2A		X						NaHSO4	
						1 4 oz Jar				X					None	
SB-11(6')						1 40 mL VOA	2A	X							MeOH	04
						3 40 mL VOA	2A		X						NaHSO4	
						1 4 oz Jar				X					None	

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #:	Log In Time: 1639
[signature]	7/11/18	1510	[signature]	7-12-18	1515	8070363	Staff: KC
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Date: 7-13-18

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

MOUNTAIN RESEARCH SAMPLE RECEIPT PROTOCOL

WORK ORDER: 8070363

CLIENT: WOODLAND Fuel

DATE SAMPLED: 7/11/18 DATE RECEIVED: 7/14/18 TIME RECEIVED: 1515

1. CHECK ALL THAT APPLY: PA ☑ WV ☐ MD ☐ P W S ☐ NPDES/COMPLIANCE ☐ DAIRY ☐ RUSH ☐

2. WERE ANY OF THE SAMPLE CONTAINERS DAMAGED/LEAKING? (ARE CUSTODY SEALS BROKEN?) YES ☐ NO ☐

IF YES, EXPLAIN: _____

3. NUMBER OF CONTAINERS RECEIVED: 28

4. WERE THE SAMPLES RECEIVED ON ICE/OTHER ACCEPTABLE REFRIGERANT? YES ☑ NO ☐

IF NO, EXPLAIN: _____

5. RECEIVING TEMP: 4.8 °C TEMP CONTROL(S) PRESENT YES ☐ NO ☐ BOTTLE(S) TEMPED: _____

6. WERE THE SAMPLES PROPERLY PRESERVED? YES ☑ NO ☐

IF NO, EXPLAIN: _____

7. WERE THE SAMPLES COLLECTED IN THE CORRECT CONTAINERS? YES ☑ NO ☐

IF NO, EXPLAIN: _____

8. IS THERE HEADSPACE PRESENT FOR VOLATILES/ODOR SAMPLES? YES ☐ NO ☐ N/A ☑

9. WAS THE COC FILLED OUT PROPERLY? YES ☑ NO ☐

IF NO, EXPLAIN: _____

10. DID THE SAMPLE LABEL(S) CONTAIN ADEQUATE INFO? (CLIENT/DATE/TIME/PRESERVATIVE) YES ☑ NO ☐

IF NO, EXPLAIN: _____

11. WERE ANY OF THE SAMPLES RECEIVED OUTSIDE OF HOLDING TIME? YES ☐ NO ☑

IF YES, EXPLAIN: _____

12. DO THE SAMPLES REQUIRE ANALYSES THAT HAVE A SHORT HOLDING TIME? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____ **PLEASE NOTIFY LABORATORY ANALYSTS!**

13. IS SUBCONTRACTING REQUIRED? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____

14. WAS THE CLIENT CONTACTED? YES ☐ NO ☑ IF YES, FILL OUT THE FOLLOWING:

MR EMPLOYEE INITIALS: CLIENT SPOKEN TO: DATE/TIME:

OUTCOME:

SIGNATURE: K DeRose

L60.30.A r2 Sample Receipt Form

For MR Use Only

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27 July 2018

Lab ID #: 8070404

Dave Panasiti
Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland, PA 16881

RE: Woodland, PA

Enclosed are the results of analyses for samples received by the laboratory on 07/13/18 16:01. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stephen Gampe

Stephen Gampe
Assistant Laboratory Manager

Authorized Reviewer

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8070404 **Reported:** 07/27/18 11:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
SB-5 (2.0) U	8070404-01	Solid	Grab	07/12/18 12:00	07/13/18 16:01
SB-5 (13.0) U	8070404-02	Solid	Grab	07/12/18 14:25	07/13/18 16:01
SB-12 (9.0) U	8070404-03	Solid	Grab	07/13/18 09:30	07/13/18 16:01

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8070404 **Reported:** 07/27/18 11:45

SB-5 (2.0) U

8070404-01 (Solid) Sampled: 07/12/18 12:00

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	**83.2**	1.00	wt%	07/18/18 12:00	07/18/18 12:00		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										**O1**
1,2,4-Trimethylbenzene	<2.96	2.96	µg/Kg dry	07/19/18 08:34	07/19/18 08:34	EPA 5035	EPA 8260 B	A	JSA	
1,3,5-Trimethylbenzene	<2.96	2.96	µg/Kg dry	07/19/18 08:34	07/19/18 08:34	EPA 5035	EPA 8260 B	A	JSA	
Benzene	<2.96	2.96	µg/Kg dry	07/19/18 08:34	07/19/18 08:34	EPA 5035	EPA 8260 B	A	JSA	
Ethylbenzene	<2.96	2.96	µg/Kg dry	07/19/18 08:34	07/19/18 08:34	EPA 5035	EPA 8260 B	A	JSA	
Isopropylbenzene (Cumene)	<2.96	2.96	µg/Kg dry	07/19/18 08:34	07/19/18 08:34	EPA 5035	EPA 8260 B	A	JSA	
MTBE	<2.96	2.96	µg/Kg dry	07/19/18 08:34	07/19/18 08:34	EPA 5035	EPA 8260 B	A	JSA	
Naphthalene	<2.96	2.96	µg/Kg dry	07/19/18 08:34	07/19/18 08:34	EPA 5035	EPA 8260 B	A	JSA	
Toluene	<2.96	2.96	µg/Kg dry	07/19/18 08:34	07/19/18 08:34	EPA 5035	EPA 8260 B	A	JSA	
Xylene o	<2.96	2.96	µg/Kg dry	07/19/18 08:34	07/19/18 08:34	EPA 5035	EPA 8260 B	A	JSA	
Xylene p/m	<5.91	5.91	µg/Kg dry	07/19/18 08:34	07/19/18 08:34	EPA 5035	EPA 8260 B	A	JSA	
Xylenes, Total	<8.87	8.87	µg/Kg dry	07/19/18 08:34	07/19/18 08:34	EPA 5035	EPA 8260 B	A	JSA	CC
Surrogate: 1,2-Dichloroethane-d4		*108 %*	*80-120*	*07/19/18 08:34*	*07/19/18 08:34*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*96.9 %*	*80-120*	*07/19/18 08:34*	*07/19/18 08:34*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*102 %*	*80-120*	*07/19/18 08:34*	*07/19/18 08:34*	*EPA 8260 B*				
Surrogate: Toluene-d8		*102 %*	*80-120*	*07/19/18 08:34*	*07/19/18 08:34*	*EPA 8260 B*				

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8070404 **Reported:** 07/27/18 11:45

SB-5 (13.0) U

8070404-02 (Solid) Sampled: 07/12/18 14:25

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	**81.9**	1.00	wt%	07/18/18 12:00	07/18/18 12:00		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	<2.42	2.42	µg/Kg dry	07/19/18 09:01	07/19/18 09:01	EPA 5035	EPA 8260 B	A	JSA	
1,3,5-Trimethylbenzene	<2.42	2.42	µg/Kg dry	07/19/18 09:01	07/19/18 09:01	EPA 5035	EPA 8260 B	A	JSA	
Benzene	<2.42	2.42	µg/Kg dry	07/19/18 09:01	07/19/18 09:01	EPA 5035	EPA 8260 B	A	JSA	
Ethylbenzene	<2.42	2.42	µg/Kg dry	07/19/18 09:01	07/19/18 09:01	EPA 5035	EPA 8260 B	A	JSA	
Isopropylbenzene (Cumene)	<2.42	2.42	µg/Kg dry	07/19/18 09:01	07/19/18 09:01	EPA 5035	EPA 8260 B	A	JSA	
MTBE	<2.42	2.42	µg/Kg dry	07/19/18 09:01	07/19/18 09:01	EPA 5035	EPA 8260 B	A	JSA	
Naphthalene	<2.42	2.42	µg/Kg dry	07/19/18 09:01	07/19/18 09:01	EPA 5035	EPA 8260 B	A	JSA	
Toluene	<2.42	2.42	µg/Kg dry	07/19/18 09:01	07/19/18 09:01	EPA 5035	EPA 8260 B	A	JSA	
Xylene o	<2.42	2.42	µg/Kg dry	07/19/18 09:01	07/19/18 09:01	EPA 5035	EPA 8260 B	A	JSA	
Xylene p/m	<4.84	4.84	µg/Kg dry	07/19/18 09:01	07/19/18 09:01	EPA 5035	EPA 8260 B	A	JSA	
Xylenes, Total	<7.27	7.27	µg/Kg dry	07/19/18 09:01	07/19/18 09:01	EPA 5035	EPA 8260 B	A	JSA	CC
Surrogate: 1,2-Dichloroethane-d4		*106 %*	*80-120*	*07/19/18 09:01*	*07/19/18 09:01*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*98.6 %*	*80-120*	*07/19/18 09:01*	*07/19/18 09:01*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*98.6 %*	*80-120*	*07/19/18 09:01*	*07/19/18 09:01*	*EPA 8260 B*				
Surrogate: Toluene-d8		*101 %*	*80-120*	*07/19/18 09:01*	*07/19/18 09:01*	*EPA 8260 B*				

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8070404 **Reported:** 07/27/18 11:45

SB-12 (9.0) U

8070404-03 (Solid) Sampled: 07/13/18 09:30

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	91.7	1.00	wt%	07/18/18 12:00	07/18/18 12:00		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	<2.16	2.16	µg/Kg dry	07/19/18 09:29	07/19/18 09:29	EPA 5035	EPA 8260 B	A	JSA	
1,3,5-Trimethylbenzene	<2.16	2.16	µg/Kg dry	07/19/18 09:29	07/19/18 09:29	EPA 5035	EPA 8260 B	A	JSA	
Benzene	<2.16	2.16	µg/Kg dry	07/19/18 09:29	07/19/18 09:29	EPA 5035	EPA 8260 B	A	JSA	
Ethylbenzene	<2.16	2.16	µg/Kg dry	07/19/18 09:29	07/19/18 09:29	EPA 5035	EPA 8260 B	A	JSA	
Isopropylbenzene (Cumene)	<2.16	2.16	µg/Kg dry	07/19/18 09:29	07/19/18 09:29	EPA 5035	EPA 8260 B	A	JSA	
MTBE	<2.16	2.16	µg/Kg dry	07/19/18 09:29	07/19/18 09:29	EPA 5035	EPA 8260 B	A	JSA	
Naphthalene	<2.16	2.16	µg/Kg dry	07/19/18 09:29	07/19/18 09:29	EPA 5035	EPA 8260 B	A	JSA	
Toluene	<2.16	2.16	µg/Kg dry	07/19/18 09:29	07/19/18 09:29	EPA 5035	EPA 8260 B	A	JSA	
Xylene o	<2.16	2.16	µg/Kg dry	07/19/18 09:29	07/19/18 09:29	EPA 5035	EPA 8260 B	A	JSA	
Xylene p/m	<4.32	4.32	µg/Kg dry	07/19/18 09:29	07/19/18 09:29	EPA 5035	EPA 8260 B	A	JSA	
Xylenes, Total	<6.48	6.48	µg/Kg dry	07/19/18 09:29	07/19/18 09:29	EPA 5035	EPA 8260 B	A	JSA	CC
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*80-120*	*07/19/18 09:29*	*07/19/18 09:29*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*100 %*	*80-120*	*07/19/18 09:29*	*07/19/18 09:29*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*103 %*	*80-120*	*07/19/18 09:29*	*07/19/18 09:29*	*EPA 8260 B*				
Surrogate: Toluene-d8		*98.7 %*	*80-120*	*07/19/18 09:29*	*07/19/18 09:29*	*EPA 8260 B*				

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8070404 **Reported:** 07/27/18 11:45

Certifications

Code	Description	Number	Expires
MDDOE	Maryland Department of the Environment	257	06/30/2018
PADEP-Altoona	Pennsylvania Department of Environmental Protection	009	03/31/2019
WVDEP-Altoona	West Virginia Department of Environmental Protection	225	12/31/2018
PADEP-DuBois	Pennsylvania Department of Environmental Protection	008	09/30/2018
WVDEP-HydroChem	West Virginia Department of Environmental Protection	038	11/01/2018

Notes and Definitions

R2	Sample received at a temperature outside designated range.
O1	The VOC vial contained an amount of soil outside the EPA recommendation.
CC	Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
RL	Reporting Limit - either the practical quantitation limit or the method detection limit
dry	Sample results reported on a dry weight basis
A	Analysis Performed by Mountain Research Altoona Laboratory - PADEP #07-00418, WVDEP #225
D	Analysis Performed by Mountain Research DuBois Laboratory - PADEP # 33-00258
W	Analysis Performed by Mountain Research - HydroChem Laboratory - WVDEP #038

BALL POINT PEN ONLY

Billing Group:	Phase:	PROJECT NAME
	SCR Drilling	Drilling

MR Project #: 4923.18.01

SITE LOCATION: Woodland, PA

CLIENT: Woodland Food & fuel

SAMPLER(S): AB

NOTES:
Received On Ice: (Y) / N
Sample Temp: 7.3°C
PWSID #:
Seal In Tack: Y / N
Other:
Comments:

MOUNTAIN RESEARCH LLC
825 25th Street, Altoona, PA 16601 (814) 949-2034 (800) 8
110 McCracken Run Road, Dubois, PA 15801 (814) 371-6030 Fax (8

CHAIN OF CUSTODY RECORD

MR PROJ. MGR. GL

Shipping Carrier:

Turn Around Time:
10 Day X
3 Day
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	8260B Low Levels	Total Solids					Preserve	LAB NUMBER
SB-5(2)U	~~7/12/18~~	1200	X		Soil	1 40 mL VOA	2A	X							MeOH	01
	7/12/18					3 40 mL VOA	2A		X						NaHSO4	
						1 4 oz Jar				X					None	
SB-5(13)U		1425				1 40 mL VOA	2A	X							MeOH	02
						3 40 mL VOA	2A		X						NaHSO4	
						1 4 oz Jar				X					None	
SB-12(9')U	7/13/18	0930				1 40 mL VOA	2A	X							MeOH	03
						3 40 mL VOA	2A		X						NaHSO4	
						1 4 oz Jar				X					None	
SB-12						1 40 mL VOA	2A	X							MeOH	
						3 40 mL VOA	2A		X						NaHSO4	
						1 4 oz Jar				X					None	

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #:
[signature]	7/13/18	1610	[signature]	7/13/18	1601	8070404
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:

Log In Time: 1511
Staff: KL
Date: 7/14/18

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

H:\H\HYDRO\Field Forms\C-O-C\Blank COC v1 04 08

MOUNTAIN RESEARCH SAMPLE RECEIPT PROTOCOL

WORK ORDER: 8070404

CLIENT: Woodland Food & Fuel

DATE SAMPLED: 7/13/18 DATE RECEIVED: 7/13/18 TIME RECEIVED: 1610

1. CHECK ALL THAT APPLY: PA ☐ WV ☐ MD ☐ P W S ☐ NPDES/COMPLIANCE ☐ DAIRY ☐ RUSH ☐

2. WERE ANY OF THE SAMPLE CONTAINERS DAMAGED/LEAKING? (ARE CUSTODY SEALS BROKEN?) YES ☐ NO ☑

IF YES, EXPLAIN: _____

3. NUMBER OF CONTAINERS RECEIVED: 15

4. WERE THE SAMPLES RECEIVED ON ICE/OTHER ACCEPTABLE REFRIGERANT? YES ☑ NO ☐

IF NO, EXPLAIN: _____

5. RECEIVING TEMP: 7.3 °C TEMP CONTROL(S) PRESENT YES ☐ NO ☐ BOTTLE(S) TEMPED: _____

6. WERE THE SAMPLES PROPERLY PRESERVED? YES ☑ NO ☐

IF NO, EXPLAIN: _____

7. WERE THE SAMPLES COLLECTED IN THE CORRECT CONTAINERS? YES ☑ NO ☐

IF NO, EXPLAIN: _____

8. IS THERE HEADSPACE PRESENT FOR VOLATILES/ODOR SAMPLES? YES ☐ NO ☐ N/A ☑

9. WAS THE COC FILLED OUT PROPERLY? YES ☑ NO ☐

IF NO, EXPLAIN: _____

10. DID THE SAMPLE LABEL(S) CONTAIN ADEQUATE INFO? (CLIENT/DATE/TIME/PRESERVATIVE) YES ☑ NO ☐

IF NO, EXPLAIN: _____

11. WERE ANY OF THE SAMPLES RECEIVED OUTSIDE OF HOLDING TIME? YES ☐ NO ☑

IF YES, EXPLAIN: _____

12. DO THE SAMPLES REQUIRE ANALYSES THAT HAVE A SHORT HOLDING TIME? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____ **PLEASE NOTIFY LABORATORY ANALYSTS!**

13. IS SUBCONTRACTING REQUIRED? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____

14. WAS THE CLIENT CONTACTED? YES ☐ NO ☑ IF YES, FILL OUT THE FOLLOWING:

MR EMPLOYEE INITIALS: CLIENT SPOKEN TO: DATE/TIME:

OUTCOME:

SIGNATURE: [signature]

L60.30.A r2 Sample Receipt Form

For MR Use Only

MOUNTAIN RESEARCH, LLC

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814.949.9591 Fax
EPA Lab# PA00165

DuBois Office and Laboratory
110 McCracken Run Road
DuBois, PA 15801
814.371.6030 Phone
814.375.0823 Fax
EPA Lab# PA00155

13 November 2018

Lab ID #: 8100889

Dave Panasiti
Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland, PA 16881

RE: Woodland, PA

Enclosed are the results of analyses for samples received by the laboratory on 10/26/18 16:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stephen Gampe

Stephen Gampe
Assistant Laboratory Manager

Authorized Reviewer

MOUNTAIN RESEARCH, LLC

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8100889 **Reported:** 11/13/18 14:48

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
SB-13	8100889-01	Solid	Grab	10/26/18 14:30	10/26/18 16:45
SB-14	8100889-02	Solid	Grab	10/26/18 12:21	10/26/18 16:45
SB-18	8100889-03	Solid	Grab	10/25/18 13:57	10/26/18 16:45
SB-17	8100889-04	Solid	Grab	10/25/18 13:57	10/26/18 16:45

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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814.375.0823 Fax
EPA Lab# PA00155

Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	**Lab ID#:** 8100889
2829 Woodland Bigler Highway	Project Number: 4923.18.01	**Reported:**
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	11/13/18 14:48

SB-13

8100889-01 (Solid) Sampled: 10/26/18 14:30

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
				Mountain Research, LLC						
General Chemistry										
Total Solids	**82.2**	1.00	wt%	10/29/18 15:30	10/29/18 15:30		SM(22) 2540 G-1997	A	LRB	
Volatile Organic Compounds by GC/MS										**O1**
1,2,4-Trimethylbenzene	**29100**	2430	µg/Kg dry	11/03/18 13:35	11/03/18 13:35	EPA 5035	EPA 8260 B	A	JMG	D1
1,3,5-Trimethylbenzene	**8470**	2430	µg/Kg dry	11/03/18 13:35	11/03/18 13:35	EPA 5035	EPA 8260 B	A	JMG	D1
Benzene	<2430	2430	µg/Kg dry	11/03/18 13:35	11/03/18 13:35	EPA 5035	EPA 8260 B	A	JMG	D1
Ethylbenzene	**13300**	2430	µg/Kg dry	11/03/18 13:35	11/03/18 13:35	EPA 5035	EPA 8260 B	A	JMG	D1
Isopropylbenzene (Cumene)	**2940**	2430	µg/Kg dry	11/03/18 13:35	11/03/18 13:35	EPA 5035	EPA 8260 B	A	JMG	D1
MTBE	<2430	2430	µg/Kg dry	11/03/18 13:35	11/03/18 13:35	EPA 5035	EPA 8260 B	A	JMG	D1
Naphthalene	**2740**	2430	µg/Kg dry	11/03/18 13:35	11/03/18 13:35	EPA 5035	EPA 8260 B	A	JMG	D1, L
Toluene	**38100**	2430	µg/Kg dry	11/03/18 13:35	11/03/18 13:35	EPA 5035	EPA 8260 B	A	JMG	D1
Xylene o	**23700**	2430	µg/Kg dry	11/03/18 13:35	11/03/18 13:35	EPA 5035	EPA 8260 B	A	JMG	D1
Xylene p/m	**62700**	4870	µg/Kg dry	11/03/18 13:35	11/03/18 13:35	EPA 5035	EPA 8260 B	A	JMG	D1
Xylenes, Total	**86400**	7300	µg/Kg dry	11/03/18 13:35	11/03/18 13:35	EPA 5035	EPA 8260 B	A	JMG	CC, D1
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*80-120*	*11/03/18 13:35*	*11/03/18 13:35*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*108 %*	*80-120*	*11/03/18 13:35*	*11/03/18 13:35*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*100 %*	*80-120*	*11/03/18 13:35*	*11/03/18 13:35*	*EPA 8260 B*				
Surrogate: Toluene-d8		*100 %*	*80-120*	*11/03/18 13:35*	*11/03/18 13:35*	*EPA 8260 B*				

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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EPA Lab# PA00155

Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	**Lab ID#:** 8100889
2829 Woodland Bigler Highway	Project Number: 4923.18.01	**Reported:**
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	11/13/18 14:48

SB-14

8100889-02 (Solid) Sampled: 10/26/18 12:21

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
				Mountain Research, LLC						
General Chemistry										
Total Solids	**94.2**	1.00	wt%	10/29/18 15:30	10/29/18 15:30		SM(22) 2540 G-1997	A	LRB	
Volatile Organic Compounds by GC/MS										**O1**
1,2,4-Trimethylbenzene	<3.06	3.06	µg/Kg dry	11/07/18 04:09	11/07/18 04:09	EPA 5035	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<3.06	3.06	µg/Kg dry	11/07/18 04:09	11/07/18 04:09	EPA 5035	EPA 8260 B	A	JMG	
Benzene	<3.06	3.06	µg/Kg dry	11/07/18 04:09	11/07/18 04:09	EPA 5035	EPA 8260 B	A	JMG	
Ethylbenzene	<3.06	3.06	µg/Kg dry	11/07/18 04:09	11/07/18 04:09	EPA 5035	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<3.06	3.06	µg/Kg dry	11/07/18 04:09	11/07/18 04:09	EPA 5035	EPA 8260 B	A	JMG	
MTBE	<3.06	3.06	µg/Kg dry	11/07/18 04:09	11/07/18 04:09	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	**5.83**	3.06	µg/Kg dry	11/07/18 04:09	11/07/18 04:09	EPA 5035	EPA 8260 B	A	JMG	
Toluene	<3.06	3.06	µg/Kg dry	11/07/18 04:09	11/07/18 04:09	EPA 5035	EPA 8260 B	A	JMG	
Xylene o	<3.06	3.06	µg/Kg dry	11/07/18 04:09	11/07/18 04:09	EPA 5035	EPA 8260 B	A	JMG	
Xylene p/m	<6.11	6.11	µg/Kg dry	11/07/18 04:09	11/07/18 04:09	EPA 5035	EPA 8260 B	A	JMG	
Xylenes, Total	<9.17	9.17	µg/Kg dry	11/07/18 04:09	11/07/18 04:09	EPA 5035	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*80-120*	*11/07/18 04:09*	*11/07/18 04:09*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*103 %*	*80-120*	*11/07/18 04:09*	*11/07/18 04:09*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*98.7 %*	*80-120*	*11/07/18 04:09*	*11/07/18 04:09*	*EPA 8260 B*				
Surrogate: Toluene-d8		*100 %*	*80-120*	*11/07/18 04:09*	*11/07/18 04:09*	*EPA 8260 B*				

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8100889 **Reported:** 11/13/18 14:48

SB-18

8100889-03 (Solid) Sampled: 10/25/18 13:57

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	**89.1**	1.00	wt%	11/01/18 16:20	11/01/18 16:20		SM(22) 2540 G-1997	A	LRB	
Volatile Organic Compounds by GC/MS										**O1**
1,2,4-Trimethylbenzene	**12200**	225	µg/Kg dry	11/03/18 01:27	11/07/18 20:50	EPA 5035	EPA 8260 B	A	JMG	D1, X
1,3,5-Trimethylbenzene	**48.8**	1.81	µg/Kg dry	11/03/18 01:27	11/03/18 01:27	EPA 5035	EPA 8260 B	A	JMG	
Benzene	**462**	225	µg/Kg dry	11/03/18 01:27	11/07/18 20:50	EPA 5035	EPA 8260 B	A	JMG	D1
Ethylbenzene	**6130**	225	µg/Kg dry	11/03/18 01:27	11/07/18 20:50	EPA 5035	EPA 8260 B	A	JMG	D1
Isopropylbenzene (Cumene)	**32.9**	1.81	µg/Kg dry	11/03/18 01:27	11/03/18 01:27	EPA 5035	EPA 8260 B	A	JMG	
MTBE	**4.21**	1.81	µg/Kg dry	11/03/18 01:27	11/03/18 01:27	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	**6.31**	1.81	µg/Kg dry	11/03/18 01:27	11/03/18 01:27	EPA 5035	EPA 8260 B	A	JMG	
Toluene	**18200**	225	µg/Kg dry	11/03/18 01:27	11/07/18 20:50	EPA 5035	EPA 8260 B	A	JMG	D1, X
Xylene o	**10500**	225	µg/Kg dry	11/03/18 01:27	11/07/18 20:50	EPA 5035	EPA 8260 B	A	JMG	D1
Xylene p/m	**24600**	449	µg/Kg dry	11/03/18 01:27	11/07/18 20:50	EPA 5035	EPA 8260 B	A	JMG	D1, X
Xylenes, Total	**35100**	674	µg/Kg dry	11/03/18 01:27	11/07/18 20:50	EPA 5035	EPA 8260 B	A	JMG	CC, D1, X
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*80-120*	*11/03/18 01:27*	*11/03/18 01:27*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*108 %*	*80-120*	*11/03/18 01:27*	*11/03/18 01:27*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*102 %*	*80-120*	*11/03/18 01:27*	*11/03/18 01:27*	*EPA 8260 B*				
Surrogate: Toluene-d8		*95.4 %*	*80-120*	*11/03/18 01:27*	*11/03/18 01:27*	*EPA 8260 B*				

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8100889 **Reported:** 11/13/18 14:48

SB-17

8100889-04 (Solid) Sampled: 10/25/18 13:57

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
				Mountain Research, LLC						
General Chemistry										
Total Solids	**88.0**	1.00	wt%	10/29/18 15:30	10/29/18 15:30		SM(22) 2540 G-1997	A	LRB	
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	**81.5**	2.26	µg/Kg dry	11/03/18 01:55	11/03/18 01:55	EPA 5035	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	**25.1**	2.26	µg/Kg dry	11/03/18 01:55	11/03/18 01:55	EPA 5035	EPA 8260 B	A	JMG	
Benzene	<227	227	µg/Kg dry	11/03/18 01:55	11/07/18 21:16	EPA 5035	EPA 8260 B	A	JMG	D1
Ethylbenzene	**1900**	227	µg/Kg dry	11/03/18 01:55	11/07/18 21:16	EPA 5035	EPA 8260 B	A	JMG	D1
Isopropylbenzene (Cumene)	**18.3**	2.26	µg/Kg dry	11/03/18 01:55	11/03/18 01:55	EPA 5035	EPA 8260 B	A	JMG	
MTBE	**3.27**	2.26	µg/Kg dry	11/03/18 01:55	11/03/18 01:55	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	**3.67**	2.26	µg/Kg dry	11/03/18 01:55	11/03/18 01:55	EPA 5035	EPA 8260 B	A	JMG	
Toluene	**4110**	227	µg/Kg dry	11/03/18 01:55	11/07/18 21:16	EPA 5035	EPA 8260 B	A	JMG	D1
Xylene o	**2860**	227	µg/Kg dry	11/03/18 01:55	11/07/18 21:16	EPA 5035	EPA 8260 B	A	JMG	D1
Xylene p/m	**7320**	455	µg/Kg dry	11/03/18 01:55	11/07/18 21:16	EPA 5035	EPA 8260 B	A	JMG	D1
Xylenes, Total	**10200**	682	µg/Kg dry	11/03/18 01:55	11/07/18 21:16	EPA 5035	EPA 8260 B	A	JMG	CC, D1
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*80-120*	*11/03/18 01:55*	*11/03/18 01:55*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*106 %*	*80-120*	*11/03/18 01:55*	*11/03/18 01:55*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*100 %*	*80-120*	*11/03/18 01:55*	*11/03/18 01:55*	*EPA 8260 B*				
Surrogate: Toluene-d8		*98.8 %*	*80-120*	*11/03/18 01:55*	*11/03/18 01:55*	*EPA 8260 B*				

Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

MOUNTAIN RESEARCH, LLC

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8100889 **Reported:** 11/13/18 14:48

Certifications

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PADEP-DuBois	Pennsylvania Department of Environmental Protection	008	09/30/2018
WVDEP-HydroChem	West Virginia Department of Environmental Protection	038	11/01/2018

Notes and Definitions

X	The result is estimated because it was over the analysis calibration range.
O1	The VOC vial contained an amount of soil outside the EPA recommendation.
L	The laboratory control spike did not meet laboratory acceptance criteria. The associated analytical results may be biased high.
D1	The sample was analyzed at a dilution.
CC	Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
RL	Reporting Limit - either the practical quantitation limit or the method detection limit
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D	Analysis Performed by Mountain Research DuBois Laboratory - PADEP # 33-00258
W	Analysis Performed by Mountain Research - HydroChem Laboratory - WVDEP #038

BALL POINT PEN ONLY

Billing Group:	Phase:	PROJECT NAME: Woodland Food & Fuel
MR Project #: 4923.18.01		SITE LOCATION: Woodland, PA
CLIENT: Woodland Food & Fuel		SAMPLER(S): JPD

NOTES:
Received On Ice: (Y) / N
Sample Temp: 5.3°C
PWSID #:
Seal In Tack: Y / N
Other:
Comments:

MOUNTAIN RESEARCH LLC
825 25th Street, Altoona, PA 16601 (814) 949-2034 (800) 837-
110 McCracken Run Road, Dubois, PA 15801 (814) 371-6030 Fax (814)

CHAIN OF CUSTODY RECORD

MR PROJ. MGR. JH

Shipping Carrier:

Turn Around Time:
10 Day ✓
5 Day
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	% Solids						Preserve	LAB NUMBER
SB-13	10/26/18	1430	X		Soil	3-40mL vol	2A	X							Na_2SO_4	01
	↓	↓	↓		↓	1-40mL vol	2A	X							MeOH	
						1-4oz. glass			X						None	

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO#: 8100889	Log In Time: 1012
RELINQUISHED BY:	DATE 10-26-18	TIME 16:45	ACCEPTED BY:	DATE 102618	TIME 16:45	Labeled By:	Staff: KS
							Date: 10/31/18

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

C:\Users\jhaney\Desktop\Chain of Custody

BALL POINT PEN ONLY

00001

Billing Group:	Phase:	PROJECT NAME: Woodland Food & Fuel
MR Project #: 4923-18.01		SITE LOCATION: Woodland, PA
CLIENT: Woodland Food & Fuel		SAMPLER(S):

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110 McCracken Run Road, Dubois, PA 15801 (814) 371-6030 Fax (814) 375-0823

CHAIN OF CUSTODY RECORD

NOTES:

Received On Ice: (Y) / N

Sample Temp: 5.3°C

PWSID #:

Seal In Tack: Y / N

Other:

Comments:

MR PROJ. MGR. JH

Shipping Carrier:

Turn Around Time:
10 Day ✓
5 Day
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	% Solids						Preserve	LAB NUMBER
SB-14	10/26/18	1221	X		Soil	3-40mL vol	2A	X							Na_2SO_4	02
	↓	↓	↓		↓	1-40mL vol	2A	X							MeOH	↓
						1-4oz. glass			X						None	

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #: 8100889	Log In Time: 1012
RELINQUISHED BY:	DATE 10/26/18	TIME 16:45	ACCEPTED BY:	DATE 10/26/18	TIME 16:45	Labeled By:	Staff: Date: 10/31/18

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

C:\Users\jhaney\Desktop\Chain of Custody

BALL POINT PEN ONLY

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CHAIN OF CUSTODY RECORD

Billing Group:
Phase:
PROJECT NAME: Woodlawn Food & Fuel
MR Project #: 4923.18.10
SITE LOCATION: Woodlawn PA
CLIENT: Woodlawn Food & Fuel
SAMPLER(S): JPD

NOTES:
Received On Ice: (Y) / N
Sample Temp:
PWSID #:
Seal In Tack: Y / N
Other:
Comments: Corrected ID / Date / Time w/ JH 10/31/18 KL

MR PROJ. MGR. JH
Shipping Carrier:
Turn Around Time:
10 Day ✓
3 Day
1 Day
Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	8015B GRO	Preserve	LAB NUMBER
~~SB-15~~	~~6/25/18~~	~~0546~~	X		soil	3-40mL VOA	2A	X		Na_2SO_4	03
SB-18	6/25/18	1357	↓		↓	1-40mL VOA	2A	X		MeOH	↓
						1-4oz glass			X	None	↓

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #: 8100889	Log In Time: 1012
	10/26/18	1645		10/26/18	1645		Staff: KL
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Date: 10/31/18

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

BALL POINT PEN ONLY

00001

Billing Group:	Phase:	PROJECT NAME: Woodland Food & Fuel
MR Project #		SITE LOCATION: Woodland, PA
CLIENT: Woodland Food & Fuel		SAMPLER(S)

NOTES:
Received On Ice: Y / N
Sample Temp: 5.3°C
PWSID #:
Seal In Tack: Y / N
Other:
Comments:

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CHAIN OF CUSTODY RECORD

MR PROJ. MGR. JH

Shipping Carrier:

Turn Around Time:
10 Day ✓
5 Day
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	% Solids						Preserve	LAB NUMBER
SB-17	10-25-18	13:57	X		Soil	3-40mL vial	2A	X							Na_2SO_4	04
	↓	↓	↓		↓	1-40mL vial	2A	X							MeOH	↓
						1-4oz. glass			X						None	

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #: 8100889	Log In Time: 1012
	10/26/18						Staff: KL
RELINQUISHED BY:	DATE 10-26-18	TIME 16:45	ACCEPTED BY:	DATE 10-26-18	TIME 16:45	Labeled By:	Date: 10/31/18

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

C:\Users\jhaney\Desktop\Chain of Custody

MOUNTAIN RESEARCH SAMPLE RECEIPT PROTOCOL

WORK ORDER: 8100889

CLIENT: Woodland Food & Fuel

DATE SAMPLED: 10-26-18 DATE RECEIVED: 10-26-18 TIME RECEIVED: 16:45

1. CHECK ALL THAT APPLY: PA ☑ WV ☐ MD ☐ P W S ☐ NPDES/COMPLIANCE ☐ DAIRY ☐ RUSH ☐

2. WERE ANY OF THE SAMPLE CONTAINERS DAMAGED/LEAKING? (ARE CUSTODY SEALS BROKEN?) YES ☐ NO ✓

IF YES, EXPLAIN: _____

3. NUMBER OF CONTAINERS RECEIVED: 20

4. WERE THE SAMPLES RECEIVED ON ICE/OTHER ACCEPTABLE REFRIGERANT? YES ☑ NO ☐

IF NO, EXPLAIN: _____

5. RECEIVING TEMP: 5.3 °C TEMP CONTROL(S) PRESENT YES ☐ NO ☑ BOTTLE(S) TEMPED: /

6. WERE THE SAMPLES PROPERLY PRESERVED? YES ☑ NO ☐

IF NO, EXPLAIN: _____

7. WERE THE SAMPLES COLLECTED IN THE CORRECT CONTAINERS? YES ☑ NO ☐

IF NO, EXPLAIN: _____

8. IS THERE HEADSPACE PRESENT FOR VOLATILES/ODOR SAMPLES? YES ☐ NO ☐ N/A ✓

9. WAS THE COC FILLED OUT PROPERLY? YES ☑ NO ☐

IF NO, EXPLAIN: _____

10. DID THE SAMPLE LABEL(S) CONTAIN ADEQUATE INFO? (CLIENT/DATE/TIME/PRESERVATIVE) YES ✓ NO ☐

IF NO, EXPLAIN: _____

11. WERE ANY OF THE SAMPLES RECEIVED OUTSIDE OF HOLDING TIME? YES ☐ NO ✓

IF YES, EXPLAIN: _____

12. DO THE SAMPLES REQUIRE ANALYSES THAT HAVE A SHORT HOLDING TIME? YES ☐ NO ✓

IF YES, WHAT ANALYSES? _____ **PLEASE NOTIFY LABORATORY ANALYSTS!**

13. IS SUBCONTRACTING REQUIRED? YES ☐ NO ✓

IF YES, WHAT ANALYSES? _____

14. WAS THE CLIENT CONTACTED? YES ☐ NO ✓ IF YES, FILL OUT THE FOLLOWING:

MR EMPLOYEE INITIALS: _____ CLIENT SPOKEN TO: _____ DATE/TIME: _____

OUTCOME: _____

SIGNATURE: _____

L60.30.A r2 Sample Receipt Form

For MR Use Only

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DuBois, PA 15801
814.371.6030 Phone
814.375.0823 Fax
EPA Lab# PA00155

13 November 2018

Lab ID #: 8100888

Dave Panasiti
Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland, PA 16881

RE: Woodland, PA

Enclosed are the results of analyses for samples received by the laboratory on 10/30/18 16:56. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stephen Gampe

Stephen Gampe
Assistant Laboratory Manager

Authorized Reviewer

MOUNTAIN RESEARCH, LLC

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814.371.6030 Phone
814.375.0823 Fax
EPA Lab# PA00155

Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	**Lab ID#:** 8100888
2829 Woodland Bigler Highway	Project Number: 4923.18.01	**Reported:**
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	11/13/18 14:36

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
SB-16	8100888-01	Solid	Grab	10/29/18 16:04	10/30/18 16:56
SB-15	8100888-02	Solid	Grab	10/30/18 08:46	10/30/18 16:56

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

MOUNTAIN RESEARCH, LLC

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814.375.0823 Fax
EPA Lab# PA00155

Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	**Lab ID#:** 8100888
2829 Woodland Bigler Highway	Project Number: 4923.18.01	**Reported:**
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	11/13/18 14:36

SB-16

8100888-01 (Solid) Sampled: 10/29/18 16:04

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
				Mountain Research, LLC						
General Chemistry										
Total Solids	**84.9**	1.00	wt%	11/01/18 16:20	11/01/18 16:20		SM(22) 2540 G-1997	A	LRB	
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	**487**	235	µg/Kg dry	11/07/18 19:56	11/07/18 19:56	EPA 5035	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<235	235	µg/Kg dry	11/07/18 19:56	11/07/18 19:56	EPA 5035	EPA 8260 B	A	JMG	
Benzene	<235	235	µg/Kg dry	11/07/18 19:56	11/07/18 19:56	EPA 5035	EPA 8260 B	A	JMG	
Ethylbenzene	<235	235	µg/Kg dry	11/07/18 19:56	11/07/18 19:56	EPA 5035	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<235	235	µg/Kg dry	11/07/18 19:56	11/07/18 19:56	EPA 5035	EPA 8260 B	A	JMG	
MTBE	<235	235	µg/Kg dry	11/07/18 19:56	11/07/18 19:56	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	**563**	235	µg/Kg dry	11/07/18 19:56	11/07/18 19:56	EPA 5035	EPA 8260 B	A	JMG	
Toluene	**2080**	235	µg/Kg dry	11/07/18 19:56	11/07/18 19:56	EPA 5035	EPA 8260 B	A	JMG	
Xylene o	<235	235	µg/Kg dry	11/07/18 19:56	11/07/18 19:56	EPA 5035	EPA 8260 B	A	JMG	
Xylene p/m	<471	471	µg/Kg dry	11/07/18 19:56	11/07/18 19:56	EPA 5035	EPA 8260 B	A	JMG	
Xylenes, Total	<706	706	µg/Kg dry	11/07/18 19:56	11/07/18 19:56	EPA 5035	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*97.1 %*	*80-120*	*11/07/18 19:56*	*11/07/18 19:56*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*107 %*	*80-120*	*11/07/18 19:56*	*11/07/18 19:56*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*99.6 %*	*80-120*	*11/07/18 19:56*	*11/07/18 19:56*	*EPA 8260 B*				
Surrogate: Toluene-d8		*100 %*	*80-120*	*11/07/18 19:56*	*11/07/18 19:56*	*EPA 8260 B*				

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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814.371.6030 Phone
814.375.0823 Fax
EPA Lab# PA00155

Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	**Lab ID#:** 8100888
2829 Woodland Bigler Highway	Project Number: 4923.18.01	**Reported:**
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	11/13/18 14:36

SB-15

8100888-02 (Solid) Sampled: 10/30/18 08:46

Mountain Research, LLC

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
General Chemistry										
Total Solids	**93.0**	1.00	wt%	11/01/18 16:20	11/01/18 16:20		SM(22) 2540 G-1997	A	LRB	
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	**373**	215	µg/Kg dry	11/03/18 00:59	11/07/18 20:23	EPA 5035	EPA 8260 B	A	JMG	D1
1,3,5-Trimethylbenzene	**35.1**	1.96	µg/Kg dry	11/03/18 00:59	11/03/18 00:59	EPA 5035	EPA 8260 B	A	JMG	
Benzene	**354**	215	µg/Kg dry	11/03/18 00:59	11/07/18 20:23	EPA 5035	EPA 8260 B	A	JMG	D1
Ethylbenzene	**386**	215	µg/Kg dry	11/03/18 00:59	11/07/18 20:23	EPA 5035	EPA 8260 B	A	JMG	D1
Isopropylbenzene (Cumene)	**15.9**	1.96	µg/Kg dry	11/03/18 00:59	11/03/18 00:59	EPA 5035	EPA 8260 B	A	JMG	
MTBE	<1.96	1.96	µg/Kg dry	11/03/18 00:59	11/03/18 00:59	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	**19.8**	1.96	µg/Kg dry	11/03/18 00:59	11/03/18 00:59	EPA 5035	EPA 8260 B	A	JMG	
Toluene	**3610**	215	µg/Kg dry	11/03/18 00:59	11/07/18 20:23	EPA 5035	EPA 8260 B	A	JMG	D1
Xylene o	**715**	215	µg/Kg dry	11/03/18 00:59	11/07/18 20:23	EPA 5035	EPA 8260 B	A	JMG	D1
Xylene p/m	**1730**	430	µg/Kg dry	11/03/18 00:59	11/07/18 20:23	EPA 5035	EPA 8260 B	A	JMG	D1
Xylenes, Total	**2440**	645	µg/Kg dry	11/03/18 00:59	11/07/18 20:23	EPA 5035	EPA 8260 B	A	JMG	CC, D1
Surrogate: 1,2-Dichloroethane-d4		*107 %*	*80-120*	*11/03/18 00:59*	*11/03/18 00:59*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*109 %*	*80-120*	*11/03/18 00:59*	*11/03/18 00:59*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*106 %*	*80-120*	*11/03/18 00:59*	*11/03/18 00:59*	*EPA 8260 B*				
Surrogate: Toluene-d8		*93.5 %*	*80-120*	*11/03/18 00:59*	*11/03/18 00:59*	*EPA 8260 B*				

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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EPA Lab# PA00155

Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8100888 **Reported:** 11/13/18 14:36

Certifications

Code	Description	Number	Expires
MDDOE	Maryland Department of the Environment	257	06/30/2018
PADEP-Altoona	Pennsylvania Department of Environmental Protection	009	03/31/2019
WVDEP-Altoona	West Virginia Department of Environmental Protection	225	12/31/2018
PADEP-DuBois	Pennsylvania Department of Environmental Protection	008	09/30/2018
WVDEP-HydroChem	West Virginia Department of Environmental Protection	038	11/01/2018

Notes and Definitions

D1	The sample was analyzed at a dilution.
CC	Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
RL	Reporting Limit - either the practical quantitation limit or the method detection limit
dry	Sample results reported on a dry weight basis
A	Analysis Performed by Mountain Research Altoona Laboratory - PADEP #07-00418, WVDEP #225
D	Analysis Performed by Mountain Research DuBois Laboratory - PADEP # 33-00258
W	Analysis Performed by Mountain Research - HydroChem Laboratory - WVDEP #038

BALL POINT PEN ONLY

Billing Group:	Phase:	PROJECT NAME
		Woodlark Food & Fuel
MR Project #		SITE LOCATION
4923.18.10		Woodlark PA

CLIENT: Woodlark Food & Fuel

SAMPLER(S): JPD

NOTES:
Received On Ice: (Y) / N
Sample Temp: 7.3°C
PWSID #:
Seal In Pack: Y / N
Other:
Comments:

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CHAIN OF CUSTODY RECORD

MR PROJ. MGR. JH

Shipping Carrier:

Turn Around Time:
10 Day ✓
3 Day
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	8015 GRO/DRO						Preserve	LAB NUMBER
SB-16	10/29/18	1604	X		soil	3-40mL VOA	ZA	X							Na_2SO_4	01
			↓		↓	1-40mL VOA	ZA	X							MeOH	↓
						1-40z glass			X						None	↓

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #: 8100888	Log In Time: 1020
[signature]	10/30/18	1656	[signature]	10/30/18	1654		Staff: [signature]
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Date: 10/31/18

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

BALL POINT PEN ONLY

00001

Billing Group:	Phase:	PROJECT NAME: Woodlawn Food & Fuel
MR Project #: 4923118110		SITE LOCATION: Woodlawn PA
CLIENT: Woodlawn Food & Fuel		SAMPLER(S): JPD

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CHAIN OF CUSTODY RECORD

NOTES:

Received On Ice: Y / N

Sample Temp: 7.3°C

PWSID #:

Seal In Tack: Y / N

Other:

Comments:

MR PROJ. MGR. JH

Shipping Carrier:

Turn Around Time:
10 Day ✓
3 Day
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	8015 GRO/DRO							Preserve	LAB NUMBER
SB-15	10/30/18	0846	X		soil	3-40mL VOA	2A	X								Na_2SO_4	02
			↓		↓	1-40mL VOA	2A	X								MeOH	↓
						1-4oz glass			X							None	↓

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO#:	Log In Time:
[signature]	10/30/18	1646	[signature]	10/30/18	1646	[signature]	~~10:00~~ 1000 KL
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By: 8100888	Staff: KL
							Date: 10/31/18

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

MOUNTAIN RESEARCH SAMPLE RECEIPT PROTOCOL

WORK ORDER:

CLIENT: WOOD/And Food o Fuel

DATE SAMPLED: 10/30/18 DATE RECEIVED: 10/30/18 TIME RECEIVED: 1654

1. CHECK ALL THAT APPLY: PA ☑ WV ☐ MD ☐ P W S ☐ NPDES/COMPLIANCE ☐ DAIRY ☐ RUSH ☐

2. WERE ANY OF THE SAMPLE CONTAINERS DAMAGED/LEAKING? (ARE CUSTODY SEALS BROKEN?) YES ☐ NO ☑

IF YES, EXPLAIN: n

3. NUMBER OF CONTAINERS RECEIVED: 5+5-10

4. WERE THE SAMPLES RECEIVED ON ICE/OTHER ACCEPTABLE REFRIGERANT? YES ☑ NO ☐

IF NO, EXPLAIN:

5. RECEIVING TEMP: 7.3 °C TEMP CONTROL(S) PRESENT YES ☐ NO ☐ BOTTLE(S) TEMPED:

6. WERE THE SAMPLES PROPERLY PRESERVED? YES ☑ NO ☐

IF NO, EXPLAIN:

7. WERE THE SAMPLES COLLECTED IN THE CORRECT CONTAINERS? YES ☑ NO ☐

IF NO, EXPLAIN:

8. IS THERE HEADSPACE PRESENT FOR VOLATILES/ODOR SAMPLES? YES ☐ NO ☐ N/A ☑

9. WAS THE COC FILLED OUT PROPERLY? YES ☑ NO ☐

IF NO, EXPLAIN:

10. DID THE SAMPLE LABEL(S) CONTAIN ADEQUATE INFO? (CLIENT/DATE/TIME/PRESERVATIVE) YES ☑ NO ☐

IF NO, EXPLAIN:

11. WERE ANY OF THE SAMPLES RECEIVED OUTSIDE OF HOLDING TIME? YES ☐ NO ☑

IF YES, EXPLAIN:

12. DO THE SAMPLES REQUIRE ANALYSES THAT HAVE A SHORT HOLDING TIME? YES ☐ NO ☑

IF YES, WHAT ANALYSES? PLEASE NOTIFY LABORATORY ANALYSTS!

13. IS SUBCONTRACTING REQUIRED? YES ☐ NO ☑

IF YES, WHAT ANALYSES?

14. WAS THE CLIENT CONTACTED? YES ☐ NO ☑ IF YES, FILL OUT THE FOLLOWING:

MR EMPLOYEE INITIALS: CLIENT SPOKEN TO: DATE/TIME:

OUTCOME:

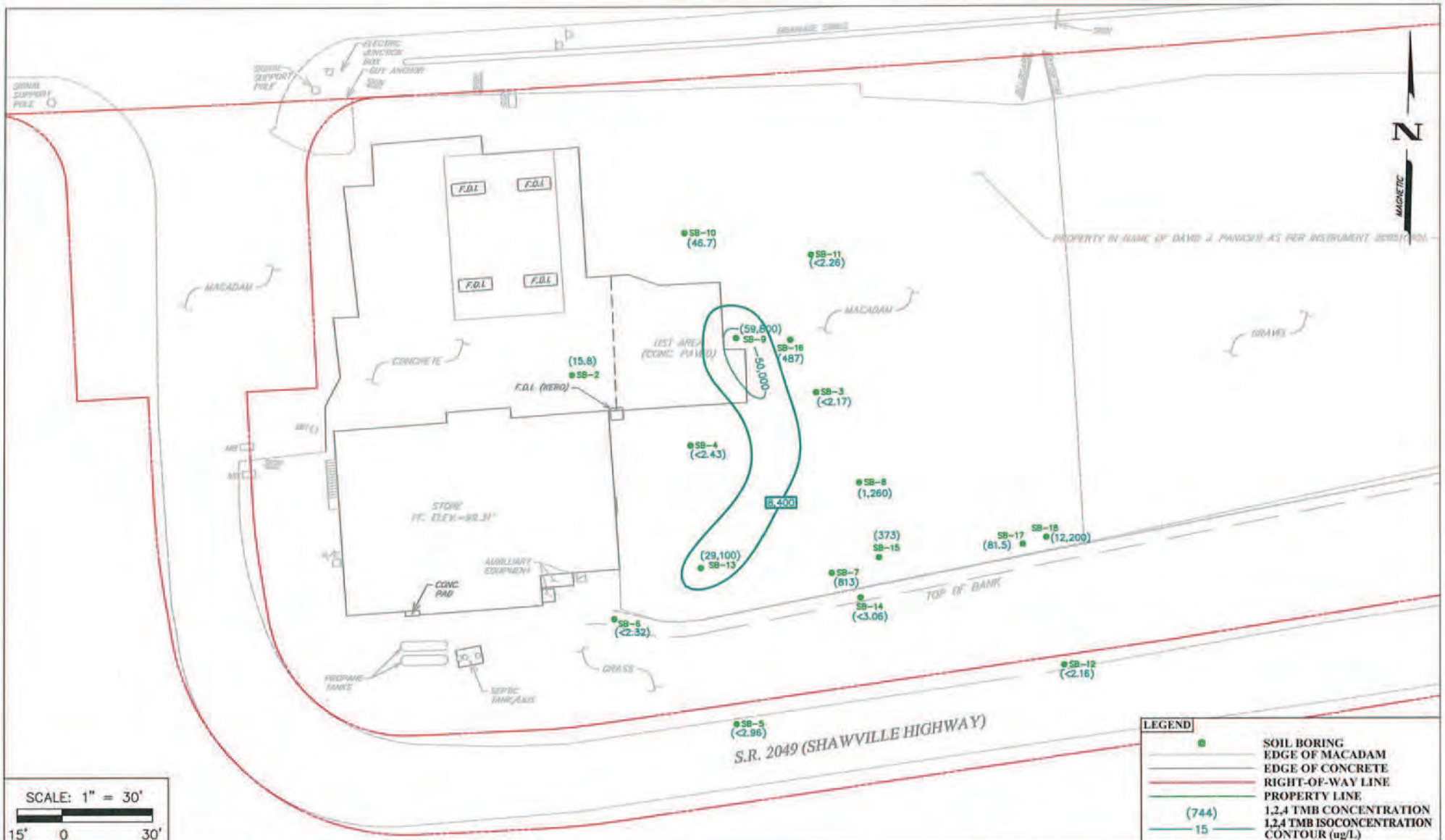
SIGNATURE:

L60.30.A r2 Sample Receipt Form

For MR Use Only

APPENDIX O

ISOCONCENTRATION MAPS - SOIL



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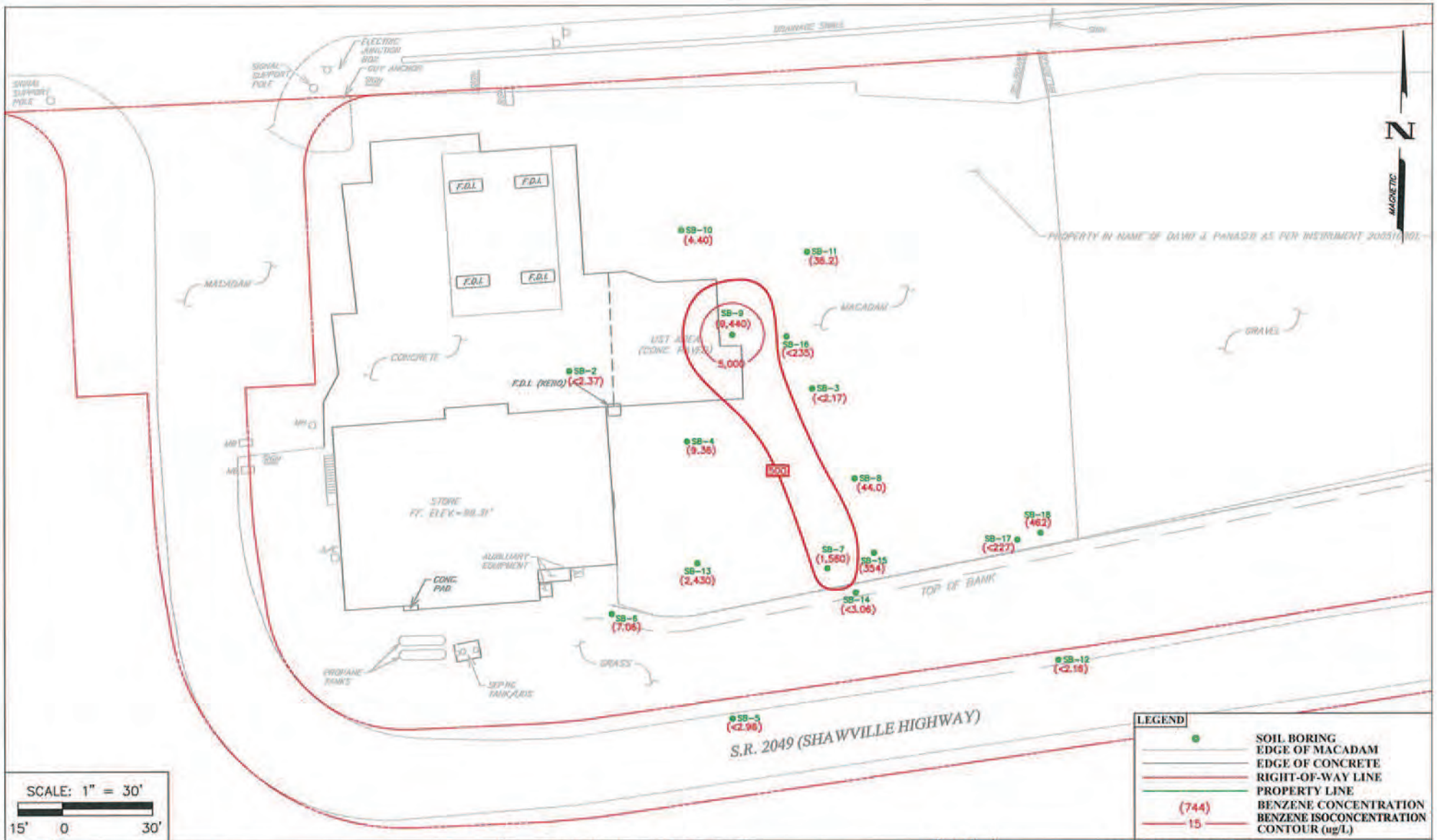
Drawn By: JMB 12/17/18 Last Saved By: JHANEY 4923.18.01
Submitted By: JH
Project Manager: JH
Checked By: JH

H:\W\WOODLAND FOOD & FUEL, INC\4923.18.01 - WOODLAND, PA\AUTO CAD\SITE CHARACTERIZATION\DECEMBER 2018\SOIL 124 TMB.DWG

WOODLAND FOOD AND FUEL

2829 Woodland Bigler Highway
Woodland, PA 16881, Clearfield County

1,2,4 TMB SOIL ISOCONCENTRATION MAP



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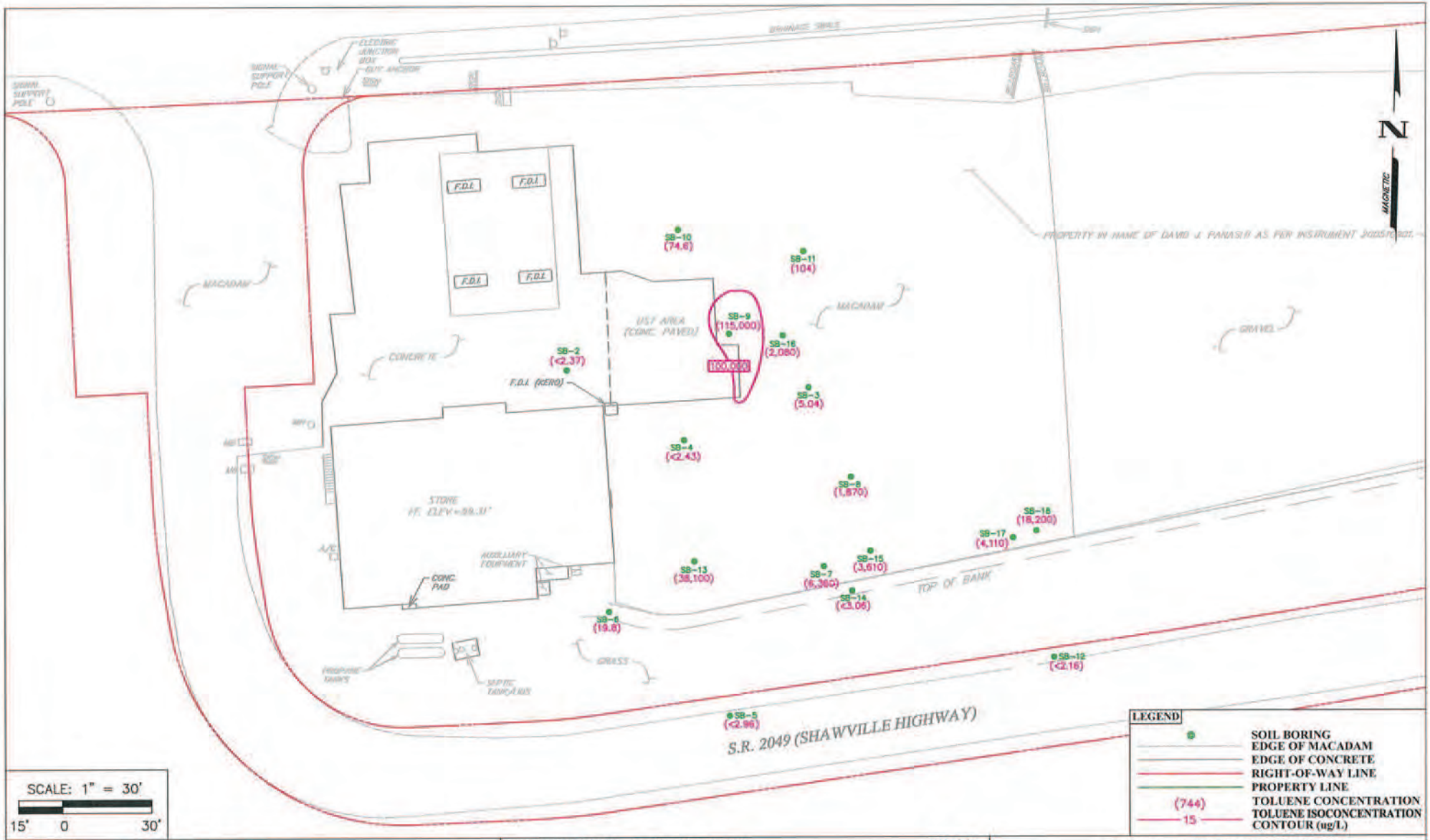
Drawn By: JMB 12/20/18 Last Saved By: JHANEY 4923.18.01
Submitted By: JH
Project Manager: JH
Checked By: JH

H:\W\WOODLAND FOOD & FUEL, INC\4923.18.01 - WOODLAND, PA\AUTO CAD\SITE CHARACTERIZATION\DECEMBER 2018\SOIL BENZENE.DWG

WOODLAND FOOD AND FUEL

2829 Woodland Bigler Highway
Woodland, PA 16881, Clearfield County

BENZENE SOIL ISOCONCENTRATION MAP



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Drawn By: JMB 12/20/18 Last Saved By: JHANEY 4923.18.01
Submitted By: JH
Project Manager: JH
Checked By: JH

H:\W\WOODLAND FOOD & FUEL, INC\4923.18.01 - WOODLAND, PA\AUTO CAD\SITE CHARACTERIZATION\DECEMBER 2018\SOIL TOLUENE.DWG

WOODLAND FOOD AND FUEL

2829 Woodland Bigler Highway
Woodland, PA 16881, Clearfield County

TOLUENE SOIL ISOCONCENTRATION MAP

APPENDIX P

LABORATORY ANALYTICAL REPORTS - GROUNDWATER

MOUNTAIN RESEARCH, LLC

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(304) 930-1972
Fax (304) 930-1975

21 March 2018

Lab ID #: 8030232

Dave Panasiti
Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland, PA 16881

RE: Woodland, PA

Enclosed are the results of analyses for samples received by the laboratory on 03/08/18 07:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stephen Gampe

Stephen Gampe
Assistant Laboratory Manager

Authorized Reviewer

MOUNTAIN RESEARCH, LLC

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Fax (304) 930-1975

Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030232 **Reported:** 03/21/18 10:24

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
MW-4/SB-4	8030232-01	Solid	Grab	03/07/18 13:55	03/08/18 07:00

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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Fax (304) 930-1975

Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030232 **Reported:** 03/21/18 10:24

MW-4/SB-4

8030232-01 (Solid) Sampled: 03/07/18 13:55

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
General Chemistry										
Total Solids	**82.3**	1.00	wt%	03/15/18 18:00	03/15/18 18:00		SM(22) 2540 G-1997	A	STG	
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	<2.43	2.43	µg/Kg dry	03/12/18 17:17	03/12/18 17:17	EPA 5035	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.43	2.43	µg/Kg dry	03/12/18 17:17	03/12/18 17:17	EPA 5035	EPA 8260 B	A	JMG	
Benzene	**9.36**	2.43	µg/Kg dry	03/12/18 17:17	03/12/18 17:17	EPA 5035	EPA 8260 B	A	JMG	
Ethylbenzene	<2.43	2.43	µg/Kg dry	03/12/18 17:17	03/12/18 17:17	EPA 5035	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.43	2.43	µg/Kg dry	03/12/18 17:17	03/12/18 17:17	EPA 5035	EPA 8260 B	A	JMG	
MTBE	**6.35**	2.43	µg/Kg dry	03/12/18 17:17	03/12/18 17:17	EPA 5035	EPA 8260 B	A	JMG	
Naphthalene	**2.46**	2.43	µg/Kg dry	03/12/18 17:17	03/12/18 17:17	EPA 5035	EPA 8260 B	A	JMG	
Toluene	<2.43	2.43	µg/Kg dry	03/12/18 17:17	03/12/18 17:17	EPA 5035	EPA 8260 B	A	JMG	
Xylene o	<2.43	2.43	µg/Kg dry	03/12/18 17:17	03/12/18 17:17	EPA 5035	EPA 8260 B	A	JMG	
Xylene p/m	<4.86	4.86	µg/Kg dry	03/12/18 17:17	03/12/18 17:17	EPA 5035	EPA 8260 B	A	JMG	
Xylenes, Total	<7.29	7.29	µg/Kg dry	03/12/18 17:17	03/12/18 17:17	EPA 5035	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*80-120*	*03/12/18 17:17*	*03/12/18 17:17*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*99.2 %*	*80-120*	*03/12/18 17:17*	*03/12/18 17:17*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*116 %*	*80-120*	*03/12/18 17:17*	*03/12/18 17:17*	*EPA 8260 B*				
Surrogate: Toluene-d8		*98.0 %*	*80-120*	*03/12/18 17:17*	*03/12/18 17:17*	*EPA 8260 B*				

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030232 **Reported:** 03/21/18 10:24

Certifications

Code	Description	Number	Expires
MDDOE	Maryland Department of the Environment	257	06/30/2018
PADEP-Altoona	Pennsylvania Department of Environmental Protection	009	03/31/2018
WVDEP-Altoona	West Virginia Department of Environmental Protection	225	12/31/2018
PADEP-DuBois	Pennsylvania Department of Environmental Protection	008	09/30/2018
WVDEP-HydroChem	West Virginia Department of Environmental Protection	038	11/01/2018

Notes and Definitions

CC	Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
RL	Reporting Limit - either the practical quantitation limit or the method detection limit
dry	Sample results reported on a dry weight basis
A	Analysis Performed by Mountain Research Altoona Laboratory - PADEP #07-00418, WVDEP #225
D	Analysis Performed by Mountain Research DuBois Laboratory - PADEP # 33-00258
W	Analysis Performed by Mountain Research - HydroChem Laboratory - WVDEP #038

Billing Group:	Phase:	PROJECT NAME
	SCR	WOODLAND FOOD & FUEL
MR Project #		SITE LOCATION
4923.18.01		WOODLAND, PA
CLIENT		SAMPLER(S)
G10's Woodland		BA

MOUNTAIN RESEARCH LLC
825 25th Street, Altoona, PA 16601
110 McCracken Run Road, Dubois, PA 15801
(814) 949-2034 (800)
(814) 371-6030 Fax (

CHAIN OF CUSTODY RECORD

NOTES:
Received On Ice: (Y) / N
Sample Temp: 2.1
Comp Set
Comments:

MR PROJ. MGR. JH
Shipping Carrier:
Turn Around Time:
10 Day X
3 Day
1 Day
Comments:

SAMPLE ID	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	8260B LOW LEVEL	TOTAL SOLIDS	Preserve	LAB NUMBER
MW-4/SB-4	3/7/18	1355	X		SOIL	1 40mL VOA	2A	X			MEOH	01
						3 40mL VOA	2A		X		NAHSO4	
						1 4oz JAR				X	NONE	

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Lab Workorder #:	Log In Time:
[signature]	3/7/18	1915	[signature]	07:00 3-8-18	8030232	1486
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Labeled By:	Staff: KL
						Date: 3/8/18

MOUNTAIN RESEARCH SAMPLE RECEIPT PROTOCOL

WORK ORDER: 8036232

CLIENT: Woodland

DATE SAMPLED: 3/7/18 DATE RECEIVED: 3/8/18 TIME RECEIVED: 0700

1. CHECK ALL THAT APPLY: PA ☑ WV ☐ MD ☐ P W S ☐ NPDES/COMPLIANCE ☐ DAIRY ☐ RUSH ☐

2. WERE ANY OF THE SAMPLE CONTAINERS DAMAGED/LEAKING? (ARE CUSTODY SEALS BROKEN?) YES ☐ NO ☑

IF YES, EXPLAIN: _____

3. NUMBER OF CONTAINERS RECEIVED: 5

4. WERE THE SAMPLES RECEIVED ON ICE/OTHER ACCEPTABLE REFRIGERANT? YES ☑ NO ☐

IF NO, EXPLAIN: _____

5. RECEIVING TEMP: 2.1 °C TEMP CONTROL(S) PRESENT YES ☐ NO ☐ BOTTLE(S) TEMPED: _____

6. WERE THE SAMPLES PROPERLY PRESERVED? YES ☑ NO ☐

IF NO, EXPLAIN: _____

7. WERE THE SAMPLES COLLECTED IN THE CORRECT CONTAINERS? YES ☑ NO ☐

IF NO, EXPLAIN: _____

8. IS THERE HEADSPACE PRESENT FOR VOLATILES/ODOR SAMPLES? YES ☐ NO ☐ N/A ☑

9. WAS THE COC FILLED OUT PROPERLY? YES ☑ NO ☐

IF NO, EXPLAIN: _____

10. DID THE SAMPLE LABEL(S) CONTAIN ADEQUATE INFO? (CLIENT/DATE/TIME/PRESERVATIVE) YES ☑ NO ☐

IF NO, EXPLAIN: _____

11. WERE ANY OF THE SAMPLES RECEIVED OUTSIDE OF HOLDING TIME? YES ☐ NO ☑

IF YES, EXPLAIN: _____

12. DO THE SAMPLES REQUIRE ANALYSES THAT HAVE A SHORT HOLDING TIME? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____ **PLEASE NOTIFY LABORATORY ANALYSTS!**

13. IS SUBCONTRACTING REQUIRED? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____

14. WAS THE CLIENT CONTACTED? YES ☐ NO ☑ IF YES, FILL OUT THE FOLLOWING:

MR EMPLOYEE INITIALS: CLIENT SPOKEN TO: DATE/TIME:

OUTCOME:

SIGNATURE: [signature]

L60.30.A r2 Sample Receipt Form

For MR Use Only

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(304) 930-1972
Fax (304) 930-1975

06 April 2018

Lab ID #: 8030689

Dave Panasiti
Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland, PA 16881

RE: Woodland, PA

Enclosed are the results of analyses for samples received by the laboratory on 03/23/18 14:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stephen Gampe

Stephen Gampe
Assistant Laboratory Manager

Authorized Reviewer

MOUNTAIN RESEARCH, LLC

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030689 **Reported:** 04/06/18 10:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
MW-1	8030689-01	Aqueous	Grab	03/23/18 10:05	03/23/18 14:30
MW-2	8030689-02	Aqueous	Grab	03/23/18 09:35	03/23/18 14:30
MW-4	8030689-03	Aqueous	Grab	03/23/18 11:05	03/23/18 14:30
Trip Blank	8030689-04	Aqueous	Grab	03/23/18 07:30	03/23/18 14:30
MW-3	8030689-05	Aqueous	Grab	03/23/18 13:00	03/23/18 14:30

Mountain Research, LLC

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

MOUNTAIN RESEARCH, LLC

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Fax (304) 930-1975

Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	Lab ID#: 8030689
2829 Woodland Bigler Highway	Project Number: 4923.18.01	Reported:
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	04/06/18 10:11

MW-1

8030689-01 (Aqueous) Sampled: 03/23/18 10:05

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	**133**	20.0	µg/L	04/02/18 21:04	04/02/18 21:04	EPA 5030B	EPA 8260 B	A	JMG	D1
1,3,5-Trimethylbenzene	**37.9**	20.0	µg/L	04/02/18 21:04	04/02/18 21:04	EPA 5030B	EPA 8260 B	A	JMG	D1
Benzene	**76.2**	20.0	µg/L	04/02/18 21:04	04/02/18 21:04	EPA 5030B	EPA 8260 B	A	JMG	D1
Ethylbenzene	**77.5**	20.0	µg/L	04/02/18 21:04	04/02/18 21:04	EPA 5030B	EPA 8260 B	A	JMG	D1
Isopropylbenzene (Cumene)	<20.0	20.0	µg/L	04/02/18 21:04	04/02/18 21:04	EPA 5030B	EPA 8260 B	A	JMG	D1
MTBE	<20.0	20.0	µg/L	04/02/18 21:04	04/02/18 21:04	EPA 5030B	EPA 8260 B	A	JMG	D1
Naphthalene	**20.4**	20.0	µg/L	04/02/18 21:04	04/02/18 21:04	EPA 5030B	EPA 8260 B	A	JMG	D1, V
Toluene	**563**	20.0	µg/L	04/02/18 21:04	04/02/18 21:04	EPA 5030B	EPA 8260 B	A	JMG	D1
Xylene o	**148**	20.0	µg/L	04/02/18 21:04	04/02/18 21:04	EPA 5030B	EPA 8260 B	A	JMG	D1
Xylene p/m	**339**	40.0	µg/L	04/02/18 21:04	04/02/18 21:04	EPA 5030B	EPA 8260 B	A	JMG	D1
Xylenes, Total	**487**	60.0	µg/L	04/02/18 21:04	04/02/18 21:04	EPA 5030B	EPA 8260 B	A	JMG	CC, D1
Surrogate: 1,2-Dichloroethane-d4		*92.7 %*	*80-120*	*04/02/18 21:04*	*04/02/18 21:04*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*96.0 %*	*80-120*	*04/02/18 21:04*	*04/02/18 21:04*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*104 %*	*80-120*	*04/02/18 21:04*	*04/02/18 21:04*	*EPA 8260 B*				
Surrogate: Toluene-d8		*98.8 %*	*80-120*	*04/02/18 21:04*	*04/02/18 21:04*	*EPA 8260 B*				

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	Lab ID#: 8030689
2829 Woodland Bigler Highway	Project Number: 4923.18.01	Reported:
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	04/06/18 10:11

MW-2

8030689-02 (Aqueous) Sampled: 03/23/18 09:35

Mountain Research, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	<2.00	2.00	µg/L	04/02/18 21:30	04/02/18 21:30	EPA 5030B	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	µg/L	04/02/18 21:30	04/02/18 21:30	EPA 5030B	EPA 8260 B	A	JMG	
Benzene	**9.18**	2.00	µg/L	04/02/18 21:30	04/02/18 21:30	EPA 5030B	EPA 8260 B	A	JMG	
Ethylbenzene	<2.00	2.00	µg/L	04/02/18 21:30	04/02/18 21:30	EPA 5030B	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	µg/L	04/02/18 21:30	04/02/18 21:30	EPA 5030B	EPA 8260 B	A	JMG	
MTBE	**11.7**	2.00	µg/L	04/02/18 21:30	04/02/18 21:30	EPA 5030B	EPA 8260 B	A	JMG	
Naphthalene	<2.00	2.00	µg/L	04/02/18 21:30	04/02/18 21:30	EPA 5030B	EPA 8260 B	A	JMG	V
Toluene	**28.0**	2.00	µg/L	04/02/18 21:30	04/02/18 21:30	EPA 5030B	EPA 8260 B	A	JMG	
Xylene o	<2.00	2.00	µg/L	04/02/18 21:30	04/02/18 21:30	EPA 5030B	EPA 8260 B	A	JMG	
Xylene p/m	<4.00	4.00	µg/L	04/02/18 21:30	04/02/18 21:30	EPA 5030B	EPA 8260 B	A	JMG	
Xylenes, Total	<6.00	6.00	µg/L	04/02/18 21:30	04/02/18 21:30	EPA 5030B	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*89.8 %*	*80-120*	*04/02/18 21:30*	*04/02/18 21:30*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*96.6 %*	*80-120*	*04/02/18 21:30*	*04/02/18 21:30*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*106 %*	*80-120*	*04/02/18 21:30*	*04/02/18 21:30*	*EPA 8260 B*				
Surrogate: Toluene-d8		*100 %*	*80-120*	*04/02/18 21:30*	*04/02/18 21:30*	*EPA 8260 B*				

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

MOUNTAIN RESEARCH, LLC

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Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	Lab ID#: 8030689
2829 Woodland Bigler Highway	Project Number: 4923.18.01	Reported:
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	04/06/18 10:11

MW-4

8030689-03 (Aqueous) Sampled: 03/23/18 11:05

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	<2.00	2.00	µg/L	04/02/18 21:56	04/02/18 21:56	EPA 5030B	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	µg/L	04/02/18 21:56	04/02/18 21:56	EPA 5030B	EPA 8260 B	A	JMG	
Benzene	**2.89**	2.00	µg/L	04/02/18 21:56	04/02/18 21:56	EPA 5030B	EPA 8260 B	A	JMG	
Ethylbenzene	<2.00	2.00	µg/L	04/02/18 21:56	04/02/18 21:56	EPA 5030B	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	µg/L	04/02/18 21:56	04/02/18 21:56	EPA 5030B	EPA 8260 B	A	JMG	
MTBE	**4.70**	2.00	µg/L	04/02/18 21:56	04/02/18 21:56	EPA 5030B	EPA 8260 B	A	JMG	
Naphthalene	<2.00	2.00	µg/L	04/02/18 21:56	04/02/18 21:56	EPA 5030B	EPA 8260 B	A	JMG	V
Toluene	**7.51**	2.00	µg/L	04/02/18 21:56	04/02/18 21:56	EPA 5030B	EPA 8260 B	A	JMG	
Xylene o	<2.00	2.00	µg/L	04/02/18 21:56	04/02/18 21:56	EPA 5030B	EPA 8260 B	A	JMG	
Xylene p/m	<4.00	4.00	µg/L	04/02/18 21:56	04/02/18 21:56	EPA 5030B	EPA 8260 B	A	JMG	
Xylenes, Total	<6.00	6.00	µg/L	04/02/18 21:56	04/02/18 21:56	EPA 5030B	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*80-120*	*04/02/18 21:56*	*04/02/18 21:56*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*95.7 %*	*80-120*	*04/02/18 21:56*	*04/02/18 21:56*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*104 %*	*80-120*	*04/02/18 21:56*	*04/02/18 21:56*	*EPA 8260 B*				
Surrogate: Toluene-d8		*98.1 %*	*80-120*	*04/02/18 21:56*	*04/02/18 21:56*	*EPA 8260 B*				

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	Lab ID#: 8030689
2829 Woodland Bigler Highway	Project Number: 4923.18.01	Reported:
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	04/06/18 10:11

Trip Blank

8030689-04 (Aqueous) Sampled: 03/23/18 07:30

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	<2.00	2.00	µg/L	04/02/18 22:22	04/02/18 22:22	EPA 5030B	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	µg/L	04/02/18 22:22	04/02/18 22:22	EPA 5030B	EPA 8260 B	A	JMG	
Benzene	<2.00	2.00	µg/L	04/02/18 22:22	04/02/18 22:22	EPA 5030B	EPA 8260 B	A	JMG	
Ethylbenzene	<2.00	2.00	µg/L	04/02/18 22:22	04/02/18 22:22	EPA 5030B	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	µg/L	04/02/18 22:22	04/02/18 22:22	EPA 5030B	EPA 8260 B	A	JMG	
MTBE	<2.00	2.00	µg/L	04/02/18 22:22	04/02/18 22:22	EPA 5030B	EPA 8260 B	A	JMG	
Naphthalene	<2.00	2.00	µg/L	04/02/18 22:22	04/02/18 22:22	EPA 5030B	EPA 8260 B	A	JMG	V
Toluene	<2.00	2.00	µg/L	04/02/18 22:22	04/02/18 22:22	EPA 5030B	EPA 8260 B	A	JMG	
Xylene o	<2.00	2.00	µg/L	04/02/18 22:22	04/02/18 22:22	EPA 5030B	EPA 8260 B	A	JMG	
Xylene p/m	<4.00	4.00	µg/L	04/02/18 22:22	04/02/18 22:22	EPA 5030B	EPA 8260 B	A	JMG	
Xylenes, Total	<6.00	6.00	µg/L	04/02/18 22:22	04/02/18 22:22	EPA 5030B	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*97.5 %*	*80-120*	*04/02/18 22:22*	*04/02/18 22:22*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*95.0 %*	*80-120*	*04/02/18 22:22*	*04/02/18 22:22*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*106 %*	*80-120*	*04/02/18 22:22*	*04/02/18 22:22*	*EPA 8260 B*				
Surrogate: Toluene-d8		*98.6 %*	*80-120*	*04/02/18 22:22*	*04/02/18 22:22*	*EPA 8260 B*				

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Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	Lab ID#: 8030689
2829 Woodland Bigler Highway	Project Number: 4923.18.01	Reported:
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	04/06/18 10:11

MW-3

8030689-05 (Aqueous) Sampled: 03/23/18 13:00

Mountain Research, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	<2.00	2.00	µg/L	04/02/18 22:48	04/02/18 22:48	EPA 5030B	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	µg/L	04/02/18 22:48	04/02/18 22:48	EPA 5030B	EPA 8260 B	A	JMG	
Benzene	<2.00	2.00	µg/L	04/02/18 22:48	04/02/18 22:48	EPA 5030B	EPA 8260 B	A	JMG	
Ethylbenzene	<2.00	2.00	µg/L	04/02/18 22:48	04/02/18 22:48	EPA 5030B	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	µg/L	04/02/18 22:48	04/02/18 22:48	EPA 5030B	EPA 8260 B	A	JMG	
MTBE	**3.51**	2.00	µg/L	04/02/18 22:48	04/02/18 22:48	EPA 5030B	EPA 8260 B	A	JMG	
Naphthalene	<2.00	2.00	µg/L	04/02/18 22:48	04/02/18 22:48	EPA 5030B	EPA 8260 B	A	JMG	V
Toluene	**3.57**	2.00	µg/L	04/02/18 22:48	04/02/18 22:48	EPA 5030B	EPA 8260 B	A	JMG	
Xylene o	<2.00	2.00	µg/L	04/02/18 22:48	04/02/18 22:48	EPA 5030B	EPA 8260 B	A	JMG	
Xylene p/m	<4.00	4.00	µg/L	04/02/18 22:48	04/02/18 22:48	EPA 5030B	EPA 8260 B	A	JMG	
Xylenes, Total	<6.00	6.00	µg/L	04/02/18 22:48	04/02/18 22:48	EPA 5030B	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*99.4 %*	*80-120*	*04/02/18 22:48*	*04/02/18 22:48*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*96.8 %*	*80-120*	*04/02/18 22:48*	*04/02/18 22:48*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*106 %*	*80-120*	*04/02/18 22:48*	*04/02/18 22:48*	*EPA 8260 B*				
Surrogate: Toluene-d8		*98.2 %*	*80-120*	*04/02/18 22:48*	*04/02/18 22:48*	*EPA 8260 B*				

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8030689 **Reported:** 04/06/18 10:11

Certifications

Code	Description	Number	Expires
MDDOE	Maryland Department of the Environment	257	06/30/2018
PADEP-Altoona	Pennsylvania Department of Environmental Protection	009	03/31/2018
WVDEP-Altoona	West Virginia Department of Environmental Protection	225	12/31/2018
PADEP-DuBois	Pennsylvania Department of Environmental Protection	008	09/30/2018
WVDEP-HydroChem	West Virginia Department of Environmental Protection	038	11/01/2018

Notes and Definitions

V	The calibration verification standard did not meet laboratory acceptance criteria. The associated analytical results may be biased low.
D1	The sample was analyzed at a dilution.
CC	Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
RL	Reporting Limit - either the practical quantitation limit or the method detection limit
dry	Sample results reported on a dry weight basis
A	Analysis Performed by Mountain Research Altoona Laboratory - PADEP #07-00418, WVDEP #225
D	Analysis Performed by Mountain Research DuBois Laboratory - PADEP # 33-00258
W	Analysis Performed by Mountain Research - HydroChem Laboratory - WVDEP #038

BALL POINT PEN ONLY

Billing Group:	Phase: SCR	PROJECT NAME Woodland Food & Fuel
MR Project # 4923.18.01		SITE LOCATION Woodland, PA
CLIENT Woodland Food & Fuel		SAMPLER(S) JC IS

NOTES:
Received On Ice: (Y) N
Sample Temp: 6.3°C
PWSID #:
Seal In Tack: Y / N
Other:
Comments:

MOUNTAIN RESEARCH LLC
825 25th Street, Altoona, PA 16601 (814) 949-2034 (800) 837
110 McCracken Run Road, Dubois, PA 15801 (814) 371-6030 Fax (814)

CHAIN OF CUSTODY RECORD

MR PROJ. MGR. JH

Shipping Carrier:

Turn Around Time:
10 Day ✓
5 Day
1 Day

Comments:

Analyses Requested: 8260B

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	Preserve	LAB NUMBER
MW 1	3/23/18	10:05	X		Aq	2-40mL VOA	2A	X	HCl	01
MW 2		9:35								02
MW 4		11:05								03
~~MW3~~										
trip blank		7:30								04
MW 3		1:00								05

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #:	Log In Time:
[signature]	3/23/18	14:30	[signature]	3/23/18	1430	8030689	1516
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Staff: KA
							Date: 3/26/18

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

C:\Users\jhaney\Desktop\Chain of Custody

MOUNTAIN RESEARCH SAMPLE RECEIPT PROTOCOL

WORK ORDER: 8030683

CLIENT: Woodland Food & Fuel

DATE SAMPLED: 3/23/18 DATE RECEIVED: 3/23/18 TIME RECEIVED: 1430

MOUNTAIN RESEARCH LLC

1. CHECK ALL THAT APPLY: PA ☑ WV ☐ MD ☐ P W S ☐ NPDES/COMPLIANCE ☐ DAIRY ☐ RUSH ☐

2. WERE ANY OF THE SAMPLE CONTAINERS DAMAGED/LEAKING? (ARE CUSTODY SEALS BROKEN?) YES ☐ NO ☑

IF YES, EXPLAIN: _____

3. NUMBER OF CONTAINERS RECEIVED: 12

4. WERE THE SAMPLES RECEIVED ON ICE/OTHER ACCEPTABLE REFRIGERANT? YES ☑ NO ☐

IF NO, EXPLAIN: _____

5. RECEIVING TEMP: 10-3 °C TEMP CONTROL(S) PRESENT YES ☐ NO ☐ BOTTLE(S) TEMPED: _____

6. WERE THE SAMPLES PROPERLY PRESERVED? YES ☑ NO ☐

IF NO, EXPLAIN: _____

7. WERE THE SAMPLES COLLECTED IN THE CORRECT CONTAINERS? YES ☑ NO ☐

IF NO, EXPLAIN: _____

8. IS THERE HEADSPACE PRESENT FOR VOLATILES/ODOR SAMPLES? YES ☐ NO ☑ N/A ☐

9. WAS THE COC FILLED OUT PROPERLY? YES ☑ NO ☐

IF NO, EXPLAIN: _____

10. DID THE SAMPLE LABEL(S) CONTAIN ADEQUATE INFO? (CLIENT/DATE/TIME/PRESERVATIVE) YES ☑ NO ☐

IF NO, EXPLAIN: _____

11. WERE ANY OF THE SAMPLES RECEIVED OUTSIDE OF HOLDING TIME? YES ☐ NO ☑

IF YES, EXPLAIN: _____

12. DO THE SAMPLES REQUIRE ANALYSES THAT HAVE A SHORT HOLDING TIME? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____ **PLEASE NOTIFY LABORATORY ANALYSTS!**

13. IS SUBCONTRACTING REQUIRED? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____

14. WAS THE CLIENT CONTACTED? YES ☐ NO ☑ IF YES, FILL OUT THE FOLLOWING:

MR EMPLOYEE INITIALS: CLIENT SPOKEN TO: DATE/TIME:

OUTCOME:

SIGNATURE: _____

L60.30.A r2 Sample Receipt Form

For MR Use Only

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19 April 2018

Lab ID #: 8040100

Dave Panasiti
Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland, PA 16881

RE: Woodland, PA

Enclosed are the results of analyses for samples received by the laboratory on 04/04/18 13:16. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stephen Gampe

Stephen Gampe
Assistant Laboratory Manager

Authorized Reviewer

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Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	**Lab ID#:** 8040100
2829 Woodland Bigler Highway	Project Number: 4923.18.01	**Reported:**
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	04/19/18 14:54

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
Trip Blank	8040100-01	Aqueous	Grab	04/04/18 07:00	04/04/18 13:16
MW-3	8040100-02	Aqueous	Grab	04/04/18 09:00	04/04/18 13:16
MW-4	8040100-03	Aqueous	Grab	04/04/18 09:25	04/04/18 13:16
MW-2	8040100-04	Aqueous	Grab	04/04/18 10:05	04/04/18 13:16
MW-1	8040100-05	Aqueous	Grab	04/04/18 10:35	04/04/18 13:16

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8040100 **Reported:** 04/19/18 14:54

Trip Blank

8040100-01 (Aqueous) Sampled: 04/04/18 07:00

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	<2.00	2.00	µg/L	04/13/18 15:54	04/13/18 15:54	EPA 5030B	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	µg/L	04/13/18 15:54	04/13/18 15:54	EPA 5030B	EPA 8260 B	A	JMG	
Benzene	<2.00	2.00	µg/L	04/13/18 15:54	04/13/18 15:54	EPA 5030B	EPA 8260 B	A	JMG	
Ethylbenzene	<2.00	2.00	µg/L	04/13/18 15:54	04/13/18 15:54	EPA 5030B	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	µg/L	04/13/18 15:54	04/13/18 15:54	EPA 5030B	EPA 8260 B	A	JMG	
MTBE	<2.00	2.00	µg/L	04/13/18 15:54	04/13/18 15:54	EPA 5030B	EPA 8260 B	A	JMG	
Naphthalene	<2.00	2.00	µg/L	04/13/18 15:54	04/13/18 15:54	EPA 5030B	EPA 8260 B	A	JMG	
Toluene	<2.00	2.00	µg/L	04/13/18 15:54	04/13/18 15:54	EPA 5030B	EPA 8260 B	A	JMG	
Xylene o	<2.00	2.00	µg/L	04/13/18 15:54	04/13/18 15:54	EPA 5030B	EPA 8260 B	A	JMG	
Xylene p/m	<4.00	4.00	µg/L	04/13/18 15:54	04/13/18 15:54	EPA 5030B	EPA 8260 B	A	JMG	
Xylenes, Total	<6.00	6.00	µg/L	04/13/18 15:54	04/13/18 15:54	EPA 5030B	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*80-120*	*04/13/18 15:54*	*04/13/18 15:54*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*92.8 %*	*80-120*	*04/13/18 15:54*	*04/13/18 15:54*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*116 %*	*80-120*	*04/13/18 15:54*	*04/13/18 15:54*	*EPA 8260 B*				
Surrogate: Toluene-d8		*100 %*	*80-120*	*04/13/18 15:54*	*04/13/18 15:54*	*EPA 8260 B*				

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Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	Lab ID#: 8040100
2829 Woodland Bigler Highway	Project Number: 4923.18.01	Reported:
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	04/19/18 14:54

MW-3

8040100-02 (Aqueous) Sampled: 04/04/18 09:00

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	**49.4**	2.00	µg/L	04/13/18 16:20	04/13/18 16:20	EPA 5030B	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	**22.3**	2.00	µg/L	04/13/18 16:20	04/13/18 16:20	EPA 5030B	EPA 8260 B	A	JMG	
Benzene	**8.67**	2.00	µg/L	04/13/18 16:20	04/13/18 16:20	EPA 5030B	EPA 8260 B	A	JMG	
Ethylbenzene	**25.5**	2.00	µg/L	04/13/18 16:20	04/13/18 16:20	EPA 5030B	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	**2.59**	2.00	µg/L	04/13/18 16:20	04/13/18 16:20	EPA 5030B	EPA 8260 B	A	JMG	
MTBE	**80.6**	2.00	µg/L	04/13/18 16:20	04/13/18 16:20	EPA 5030B	EPA 8260 B	A	JMG	
Naphthalene	**4.94**	2.00	µg/L	04/13/18 16:20	04/13/18 16:20	EPA 5030B	EPA 8260 B	A	JMG	
Toluene	**20.1**	2.00	µg/L	04/13/18 16:20	04/13/18 16:20	EPA 5030B	EPA 8260 B	A	JMG	
Xylene o	**17.2**	2.00	µg/L	04/13/18 16:20	04/13/18 16:20	EPA 5030B	EPA 8260 B	A	JMG	
Xylene p/m	**55.5**	4.00	µg/L	04/13/18 16:20	04/13/18 16:20	EPA 5030B	EPA 8260 B	A	JMG	
Xylenes, Total	**72.7**	6.00	µg/L	04/13/18 16:20	04/13/18 16:20	EPA 5030B	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*113 %*	*80-120*	*04/13/18 16:20*	*04/13/18 16:20*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*94.1 %*	*80-120*	*04/13/18 16:20*	*04/13/18 16:20*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*121 %*	*80-120*	*04/13/18 16:20*	*04/13/18 16:20*	*EPA 8260 B*	*S*			
Surrogate: Toluene-d8		*101 %*	*80-120*	*04/13/18 16:20*	*04/13/18 16:20*	*EPA 8260 B*				

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Fax (304) 930-1975

Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	Lab ID#: 8040100
2829 Woodland Bigler Highway	Project Number: 4923.18.01	Reported:
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	04/19/18 14:54

MW-4

8040100-03 (Aqueous) Sampled: 04/04/18 09:25

Mountain Research, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	**680**	100	µg/L	04/13/18 16:46	04/17/18 19:17	EPA 5030B	EPA 8260 B	A	JMG	D1
1,3,5-Trimethylbenzene	**1410**	50.0	µg/L	04/13/18 16:46	04/17/18 03:10	EPA 5030B	EPA 8260 B	A	JMG	D1
Benzene	**626**	50.0	µg/L	04/13/18 16:46	04/17/18 03:10	EPA 5030B	EPA 8260 B	A	JMG	D1
Ethylbenzene	**283**	50.0	µg/L	04/13/18 16:46	04/17/18 03:10	EPA 5030B	EPA 8260 B	A	JMG	D1
Isopropylbenzene (Cumene)	**77.2**	2.00	µg/L	04/13/18 16:46	04/13/18 16:46	EPA 5030B	EPA 8260 B	A	JMG	
MTBE	**38.5**	2.00	µg/L	04/13/18 16:46	04/13/18 16:46	EPA 5030B	EPA 8260 B	A	JMG	
Naphthalene	**43.9**	2.00	µg/L	04/13/18 16:46	04/13/18 16:46	EPA 5030B	EPA 8260 B	A	JMG	
Toluene	**2800**	100	µg/L	04/13/18 16:46	04/17/18 19:17	EPA 5030B	EPA 8260 B	A	JMG	D1
Xylene o	**702**	50.0	µg/L	04/13/18 16:46	04/17/18 03:10	EPA 5030B	EPA 8260 B	A	JMG	D1
Xylene p/m	**1630**	100	µg/L	04/13/18 16:46	04/17/18 03:10	EPA 5030B	EPA 8260 B	A	JMG	D1
Xylenes, Total	**2330**	150	µg/L	04/13/18 16:46	04/17/18 03:10	EPA 5030B	EPA 8260 B	A	JMG	CC, D1
Surrogate: 1,2-Dichloroethane-d4		*100 %*	*80-120*	*04/13/18 16:46*	*04/13/18 16:46*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*94.5 %*	*80-120*	*04/13/18 16:46*	*04/13/18 16:46*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*117 %*	*80-120*	*04/13/18 16:46*	*04/13/18 16:46*	*EPA 8260 B*				
Surrogate: Toluene-d8		*100 %*	*80-120*	*04/13/18 16:46*	*04/13/18 16:46*	*EPA 8260 B*				

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	Lab ID#: 8040100
2829 Woodland Bigler Highway	Project Number: 4923.18.01	Reported:
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	04/19/18 14:54

MW-2

8040100-04 (Aqueous) Sampled: 04/04/18 10:05

Mountain Research, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	**3000**	2000	µg/L	04/13/18 17:12	04/17/18 19:43	EPA 5030B	EPA 8260 B	A	JMG	D1
1,3,5-Trimethylbenzene	**2260**	100	µg/L	04/13/18 17:12	04/17/18 03:36	EPA 5030B	EPA 8260 B	A	JMG	D1
Benzene	**3750**	100	µg/L	04/13/18 17:12	04/17/18 03:36	EPA 5030B	EPA 8260 B	A	JMG	D1
Ethylbenzene	**4620**	2000	µg/L	04/13/18 17:12	04/17/18 19:43	EPA 5030B	EPA 8260 B	A	JMG	D1
Isopropylbenzene (Cumene)	**886**	100	µg/L	04/13/18 17:12	04/17/18 03:36	EPA 5030B	EPA 8260 B	A	JMG	D1
MTBE	**34.7**	2.00	µg/L	04/13/18 17:12	04/13/18 17:12	EPA 5030B	EPA 8260 B	A	JMG	
Naphthalene	**1560**	100	µg/L	04/13/18 17:12	04/17/18 03:36	EPA 5030B	EPA 8260 B	A	JMG	D1
Toluene	**47200**	2000	µg/L	04/13/18 17:12	04/17/18 19:43	EPA 5030B	EPA 8260 B	A	JMG	D1
Xylene o	**8120**	2000	µg/L	04/13/18 17:12	04/17/18 19:43	EPA 5030B	EPA 8260 B	A	JMG	D1
Xylene p/m	**18300**	4000	µg/L	04/13/18 17:12	04/17/18 19:43	EPA 5030B	EPA 8260 B	A	JMG	D1
Xylenes, Total	**26500**	6000	µg/L	04/13/18 17:12	04/17/18 19:43	EPA 5030B	EPA 8260 B	A	JMG	CC, D1
Surrogate: 1,2-Dichloroethane-d4		*63.5 %*	*80-120*	*04/13/18 17:12*	*04/13/18 17:12*	*EPA 8260 B*	*S*			
Surrogate: 4-Bromofluorobenzene		*85.4 %*	*80-120*	*04/13/18 17:12*	*04/13/18 17:12*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*113 %*	*80-120*	*04/13/18 17:12*	*04/13/18 17:12*	*EPA 8260 B*				
Surrogate: Toluene-d8		*19.0 %*	*80-120*	*04/13/18 17:12*	*04/13/18 17:12*	*EPA 8260 B*				

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Stephen Gampe

Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	Lab ID#:
2829 Woodland Bigler Highway	Project Number: 4923.18.01	8040100
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	Reported: 04/19/18 14:54

MW-1

8040100-05 (Aqueous) Sampled: 04/04/18 10:35

Mountain Research, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	**174**	20.0	µg/L	04/17/18 04:29	04/17/18 04:29	EPA 5030B	EPA 8260 B	A	JMG	D1
1,3,5-Trimethylbenzene	**44.7**	20.0	µg/L	04/17/18 04:29	04/17/18 04:29	EPA 5030B	EPA 8260 B	A	JMG	D1
Benzene	<20.0	20.0	µg/L	04/17/18 04:29	04/17/18 04:29	EPA 5030B	EPA 8260 B	A	JMG	D1
Ethylbenzene	**34.8**	20.0	µg/L	04/17/18 04:29	04/17/18 04:29	EPA 5030B	EPA 8260 B	A	JMG	D1
Isopropylbenzene (Cumene)	<20.0	20.0	µg/L	04/17/18 04:29	04/17/18 04:29	EPA 5030B	EPA 8260 B	A	JMG	D1
MTBE	<20.0	20.0	µg/L	04/17/18 04:29	04/17/18 04:29	EPA 5030B	EPA 8260 B	A	JMG	D1
Naphthalene	**99.4**	20.0	µg/L	04/17/18 04:29	04/17/18 04:29	EPA 5030B	EPA 8260 B	A	JMG	D1
Toluene	**63.4**	20.0	µg/L	04/17/18 04:29	04/17/18 04:29	EPA 5030B	EPA 8260 B	A	JMG	D1
Xylene o	**76.7**	20.0	µg/L	04/17/18 04:29	04/17/18 04:29	EPA 5030B	EPA 8260 B	A	JMG	D1
Xylene p/m	**167**	40.0	µg/L	04/17/18 04:29	04/17/18 04:29	EPA 5030B	EPA 8260 B	A	JMG	D1
Xylenes, Total	**244**	60.0	µg/L	04/17/18 04:29	04/17/18 04:29	EPA 5030B	EPA 8260 B	A	JMG	CC, D1
Surrogate: 1,2-Dichloroethane-d4		*93.1 %*	*80-120*	*04/17/18 04:29*	*04/17/18 04:29*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*95.2 %*	*80-120*	*04/17/18 04:29*	*04/17/18 04:29*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*100 %*	*80-120*	*04/17/18 04:29*	*04/17/18 04:29*	*EPA 8260 B*				
Surrogate: Toluene-d8		*99.2 %*	*80-120*	*04/17/18 04:29*	*04/17/18 04:29*	*EPA 8260 B*				

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8040100 **Reported:** 04/19/18 14:54

Certifications

Code	Description	Number	Expires
MDDOE	Maryland Department of the Environment	257	06/30/2018
PADEP-Altoona	Pennsylvania Department of Environmental Protection	009	03/31/2018
WVDEP-Altoona	West Virginia Department of Environmental Protection	225	12/31/2018
PADEP-DuBois	Pennsylvania Department of Environmental Protection	008	09/30/2018
WVDEP-HydroChem	West Virginia Department of Environmental Protection	038	11/01/2018

Notes and Definitions

S	Surrogate recovery outside of laboratory acceptance criteria.
D1	The sample was analyzed at a dilution.
CC	Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
RL	Reporting Limit - either the practical quantitation limit or the method detection limit
dry	Sample results reported on a dry weight basis
A	Analysis Performed by Mountain Research Altoona Laboratory - PADEP #07-00418, WVDEP #225
D	Analysis Performed by Mountain Research DuBois Laboratory - PADEP # 33-00258
W	Analysis Performed by Mountain Research - HydroChem Laboratory - WVDEP #038

Billing Group:	Phase: SCR	PROJECT NAME Woodland Food and Fuel	MOUNTAIN RESEARCH
MR Project # 4923.18.01		SITE LOCATION Woodland PA	825 25th Street, Altoona, PA 16601 (814) 949-
CLIENT Woodland Food and Fuel		SAMPLER(S) EWS	110 McCracken Run Road, Dubois, PA 15801 (814) 371-

CHAIN OF CUSTODY REC

NOTES:
Received On Ice: (Y) / N
Sample Temp: 7.2°C
Comp Set
Comments:

MR PROJ. MGR. JH
Shipping Carrier:
Turn Around Time:
10 Day ✓
3 Day
1 Day
Comments:

SAMPLE ID	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	Preserve	LAB NUMBER
Trip Blank	4/4/18	07:00	X		AQ	2-40mLVOAs	2A	X	HCL	01
MW 3	4/4/18	09:00						X	HCl	02
	↓	↓							~~none~~	
MW4	4/4/18	09:25						X	HCl	03
	↓	↓							~~None~~	
MW 2	4/4/18	10:05						X	HCl	04
	↓	↓							~~None~~	
MW 1	4/4/18	10:35						X	HCl	05
	↓	↓							~~None~~	

4/4/18 KD

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Lab Workorder #:	Log In Time: 1633
[signature]	4/4/18	13:15	[signature]	13:16 4-4-18	8040100	Staff: KD
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Labeled By:	Date: 4/4/18

MOUNTAIN RESEARCH SAMPLE RECEIPT PROTOCOL

WORK ORDER: 8040108

CLIENT: Woodland Fuel

DATE SAMPLED: 4/4/18 DATE RECEIVED: 4/4/18 TIME RECEIVED: 1315

1. CHECK ALL THAT APPLY: PA ☐ WV ☐ MD ☐ P W S ☐ NPDES/COMPLIANCE ☐ DAIRY ☐ RUSH ☐

2. WERE ANY OF THE SAMPLE CONTAINERS DAMAGED/LEAKING? (ARE CUSTODY SEALS BROKEN?) YES ☐ NO ☑

IF YES, EXPLAIN: _____

3. NUMBER OF CONTAINERS RECEIVED: 10

4. WERE THE SAMPLES RECEIVED ON ICE/OTHER ACCEPTABLE REFRIGERANT? YES ☑ NO ☐

IF NO, EXPLAIN: _____

5. RECEIVING TEMP: 7.2C TEMP CONTROL(S) PRESENT YES ☐ NO ☐ BOTTLE(S) TEMPED: _____

6. WERE THE SAMPLES PROPERLY PRESERVED? YES ☑ NO ☐

IF NO, EXPLAIN: _____

7. WERE THE SAMPLES COLLECTED IN THE CORRECT CONTAINERS? YES ☑ NO ☐

IF NO, EXPLAIN: _____

8. IS THERE HEADSPACE PRESENT FOR VOLATILES/ODOR SAMPLES? YES ☐ NO ☑ N/A ☐

9. WAS THE COC FILLED OUT PROPERLY? YES ☑ NO ☐

IF NO, EXPLAIN: _____

10. DID THE SAMPLE LABEL(S) CONTAIN ADEQUATE INFO? (CLIENT/DATE/TIME/PRESERVATIVE) YES ☑ NO ☐

IF NO, EXPLAIN: _____

11. WERE ANY OF THE SAMPLES RECEIVED OUTSIDE OF HOLDING TIME? YES ☐ NO ☑

IF YES, EXPLAIN: _____

12. DO THE SAMPLES REQUIRE ANALYSES THAT HAVE A SHORT HOLDING TIME? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____ **PLEASE NOTIFY LABORATORY ANALYSTS!**

13. IS SUBCONTRACTING REQUIRED? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____

14. WAS THE CLIENT CONTACTED? YES ☐ NO ☑ IF YES, FILL OUT THE FOLLOWING:

MR EMPLOYEE INITIALS: _____ CLIENT SPOKEN TO: _____ DATE/TIME: _____

OUTCOME: _____

SIGNATURE: K DeRose

L60.30.A r2 Sample Receipt Form

For MR Use Only

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14 September 2018

Lab ID #: 8090272

Dave Panasiti
Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland, PA 16881

RE: Woodland, PA

Enclosed are the results of analyses for samples received by the laboratory on 09/10/18 14:52. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stephen Gampe

Stephen Gampe
Assistant Laboratory Manager

Authorized Reviewer

MOUNTAIN RESEARCH, LLC

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8090272 **Reported:** 09/14/18 16:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
Trip Blank	8090272-01	Aqueous	Grab	09/10/18 07:25	09/10/18 14:52
MW-1	8090272-02	Aqueous	Grab	09/10/18 12:30	09/10/18 14:52
MW-2	8090272-03	Aqueous	Grab	09/10/18 13:05	09/10/18 14:52
MW-3	8090272-04	Aqueous	Grab	09/10/18 11:55	09/10/18 14:52
MW-4	8090272-05	Aqueous	Grab	09/10/18 11:35	09/10/18 14:52
MW-5	8090272-06	Aqueous	Grab	09/10/18 12:20	09/10/18 14:52
MW-6	8090272-07	Aqueous	Grab	09/10/18 12:10	09/10/18 14:52

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Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8090272 **Reported:** 09/14/18 16:41

Trip Blank

8090272-01 (Aqueous) Sampled: 09/10/18 07:25

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	<2.00	2.00	µg/L	09/12/18 15:21	09/12/18 15:21	EPA 5030B	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	µg/L	09/12/18 15:21	09/12/18 15:21	EPA 5030B	EPA 8260 B	A	JMG	
Benzene	<2.00	2.00	µg/L	09/12/18 15:21	09/12/18 15:21	EPA 5030B	EPA 8260 B	A	JMG	
Ethylbenzene	<2.00	2.00	µg/L	09/12/18 15:21	09/12/18 15:21	EPA 5030B	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	µg/L	09/12/18 15:21	09/12/18 15:21	EPA 5030B	EPA 8260 B	A	JMG	
MTBE	<2.00	2.00	µg/L	09/12/18 15:21	09/12/18 15:21	EPA 5030B	EPA 8260 B	A	JMG	
Naphthalene	<2.00	2.00	µg/L	09/12/18 15:21	09/12/18 15:21	EPA 5030B	EPA 8260 B	A	JMG	
Toluene	<2.00	2.00	µg/L	09/12/18 15:21	09/12/18 15:21	EPA 5030B	EPA 8260 B	A	JMG	
Xylene o	<2.00	2.00	µg/L	09/12/18 15:21	09/12/18 15:21	EPA 5030B	EPA 8260 B	A	JMG	
Xylene p/m	<4.00	4.00	µg/L	09/12/18 15:21	09/12/18 15:21	EPA 5030B	EPA 8260 B	A	JMG	
Xylenes, Total	<6.00	6.00	µg/L	09/12/18 15:21	09/12/18 15:21	EPA 5030B	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*80-120*	*09/12/18 15:21*	*09/12/18 15:21*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*92.2 %*	*80-120*	*09/12/18 15:21*	*09/12/18 15:21*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*103 %*	*80-120*	*09/12/18 15:21*	*09/12/18 15:21*	*EPA 8260 B*				
Surrogate: Toluene-d8		*102 %*	*80-120*	*09/12/18 15:21*	*09/12/18 15:21*	*EPA 8260 B*				

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Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	**Lab ID#:** 8090272
2829 Woodland Bigler Highway	Project Number: 4923.18.01	**Reported:**
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	09/14/18 16:41

MW-1

8090272-02 (Aqueous) Sampled: 09/10/18 12:30

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	<2.00	2.00	µg/L	09/12/18 16:39	09/12/18 16:39	EPA 5030B	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	µg/L	09/12/18 16:39	09/12/18 16:39	EPA 5030B	EPA 8260 B	A	JMG	
Benzene	<2.00	2.00	µg/L	09/12/18 16:39	09/12/18 16:39	EPA 5030B	EPA 8260 B	A	JMG	
Ethylbenzene	<2.00	2.00	µg/L	09/12/18 16:39	09/12/18 16:39	EPA 5030B	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	µg/L	09/12/18 16:39	09/12/18 16:39	EPA 5030B	EPA 8260 B	A	JMG	
MTBE	**3.59**	2.00	µg/L	09/12/18 16:39	09/12/18 16:39	EPA 5030B	EPA 8260 B	A	JMG	
Naphthalene	<2.00	2.00	µg/L	09/12/18 16:39	09/12/18 16:39	EPA 5030B	EPA 8260 B	A	JMG	
Toluene	<2.00	2.00	µg/L	09/12/18 16:39	09/12/18 16:39	EPA 5030B	EPA 8260 B	A	JMG	
Xylene o	<2.00	2.00	µg/L	09/12/18 16:39	09/12/18 16:39	EPA 5030B	EPA 8260 B	A	JMG	
Xylene p/m	<4.00	4.00	µg/L	09/12/18 16:39	09/12/18 16:39	EPA 5030B	EPA 8260 B	A	JMG	
Xylenes, Total	<6.00	6.00	µg/L	09/12/18 16:39	09/12/18 16:39	EPA 5030B	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*80-120*	*09/12/18 16:39*	*09/12/18 16:39*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*92.1 %*	*80-120*	*09/12/18 16:39*	*09/12/18 16:39*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*104 %*	*80-120*	*09/12/18 16:39*	*09/12/18 16:39*	*EPA 8260 B*				
Surrogate: Toluene-d8		*99.0 %*	*80-120*	*09/12/18 16:39*	*09/12/18 16:39*	*EPA 8260 B*				

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Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	Lab ID#: 8090272
2829 Woodland Bigler Highway	Project Number: 4923.18.01	Reported:
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	09/14/18 16:41

MW-2

8090272-03 (Aqueous) Sampled: 09/10/18 13:05

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	**9.25**	2.00	µg/L	09/12/18 17:32	09/12/18 17:32	EPA 5030B	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	**2.87**	2.00	µg/L	09/12/18 17:32	09/12/18 17:32	EPA 5030B	EPA 8260 B	A	JMG	
Benzene	<2.00	2.00	µg/L	09/12/18 17:32	09/12/18 17:32	EPA 5030B	EPA 8260 B	A	JMG	
Ethylbenzene	**6.40**	2.00	µg/L	09/12/18 17:32	09/12/18 17:32	EPA 5030B	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	µg/L	09/12/18 17:32	09/12/18 17:32	EPA 5030B	EPA 8260 B	A	JMG	
MTBE	**4.55**	2.00	µg/L	09/12/18 17:32	09/12/18 17:32	EPA 5030B	EPA 8260 B	A	JMG	
Naphthalene	<2.00	2.00	µg/L	09/12/18 17:32	09/12/18 17:32	EPA 5030B	EPA 8260 B	A	JMG	
Toluene	<2.00	2.00	µg/L	09/12/18 17:32	09/12/18 17:32	EPA 5030B	EPA 8260 B	A	JMG	
Xylene o	<2.00	2.00	µg/L	09/12/18 17:32	09/12/18 17:32	EPA 5030B	EPA 8260 B	A	JMG	
Xylene p/m	**6.48**	4.00	µg/L	09/12/18 17:32	09/12/18 17:32	EPA 5030B	EPA 8260 B	A	JMG	
Xylenes, Total	**6.48**	6.00	µg/L	09/12/18 17:32	09/12/18 17:32	EPA 5030B	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*80-120*	*09/12/18 17:32*	*09/12/18 17:32*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*93.6 %*	*80-120*	*09/12/18 17:32*	*09/12/18 17:32*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*107 %*	*80-120*	*09/12/18 17:32*	*09/12/18 17:32*	*EPA 8260 B*				
Surrogate: Toluene-d8		*100 %*	*80-120*	*09/12/18 17:32*	*09/12/18 17:32*	*EPA 8260 B*				

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Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	Lab ID#: 8090272
2829 Woodland Bigler Highway	Project Number: 4923.18.01	Reported:
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	09/14/18 16:41

MW-3

8090272-04 (Aqueous) Sampled: 09/10/18 11:55

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	**1520**	200	µg/L	09/12/18 17:58	09/12/18 17:58	EPA 5030B	EPA 8260 B	A	JMG	D1
1,3,5-Trimethylbenzene	**357**	200	µg/L	09/12/18 17:58	09/12/18 17:58	EPA 5030B	EPA 8260 B	A	JMG	D1
Benzene	**2060**	200	µg/L	09/12/18 17:58	09/12/18 17:58	EPA 5030B	EPA 8260 B	A	JMG	D1
Ethylbenzene	**2240**	200	µg/L	09/12/18 17:58	09/12/18 17:58	EPA 5030B	EPA 8260 B	A	JMG	D1
Isopropylbenzene (Cumene)	<200	200	µg/L	09/12/18 17:58	09/12/18 17:58	EPA 5030B	EPA 8260 B	A	JMG	D1
MTBE	<200	200	µg/L	09/12/18 17:58	09/12/18 17:58	EPA 5030B	EPA 8260 B	A	JMG	D1
Naphthalene	**338**	200	µg/L	09/12/18 17:58	09/12/18 17:58	EPA 5030B	EPA 8260 B	A	JMG	D1
Toluene	**15700**	200	µg/L	09/12/18 17:58	09/12/18 18:24	EPA 5030B	EPA 8260 B	A	JMG	D1
Xylene o	**4390**	200	µg/L	09/12/18 17:58	09/12/18 17:58	EPA 5030B	EPA 8260 B	A	JMG	D1
Xylene p/m	**9160**	400	µg/L	09/12/18 17:58	09/12/18 17:58	EPA 5030B	EPA 8260 B	A	JMG	D1
Xylenes, Total	**13500**	600	µg/L	09/12/18 17:58	09/12/18 17:58	EPA 5030B	EPA 8260 B	A	JMG	CC, D1
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*80-120*	*09/12/18 17:58*	*09/12/18 17:58*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*94.0 %*	*80-120*	*09/12/18 17:58*	*09/12/18 17:58*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*107 %*	*80-120*	*09/12/18 17:58*	*09/12/18 17:58*	*EPA 8260 B*				
Surrogate: Toluene-d8		*101 %*	*80-120*	*09/12/18 17:58*	*09/12/18 17:58*	*EPA 8260 B*				

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Stephen Gampe, Assistant Laboratory Manager

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Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	Lab ID#: 8090272
2829 Woodland Bigler Highway	Project Number: 4923.18.01	Reported:
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	09/14/18 16:41

MW-4

8090272-05 (Aqueous) Sampled: 09/10/18 11:35

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	**79.3**	10.0	µg/L	09/12/18 18:50	09/12/18 18:50	EPA 5030B	EPA 8260 B	A	JMG	D1
1,3,5-Trimethylbenzene	**23.0**	10.0	µg/L	09/12/18 18:50	09/12/18 18:50	EPA 5030B	EPA 8260 B	A	JMG	D1
Benzene	**247**	10.0	µg/L	09/12/18 18:50	09/12/18 18:50	EPA 5030B	EPA 8260 B	A	JMG	D1
Ethylbenzene	**85.4**	10.0	µg/L	09/12/18 18:50	09/12/18 18:50	EPA 5030B	EPA 8260 B	A	JMG	D1
Isopropylbenzene (Cumene)	<10.0	10.0	µg/L	09/12/18 18:50	09/12/18 18:50	EPA 5030B	EPA 8260 B	A	JMG	D1
MTBE	**44.2**	10.0	µg/L	09/12/18 18:50	09/12/18 18:50	EPA 5030B	EPA 8260 B	A	JMG	D1
Naphthalene	<10.0	10.0	µg/L	09/12/18 18:50	09/12/18 18:50	EPA 5030B	EPA 8260 B	A	JMG	D1
Toluene	**1060**	50.0	µg/L	09/12/18 18:50	09/12/18 19:15	EPA 5030B	EPA 8260 B	A	JMG	D1
Xylene o	**196**	10.0	µg/L	09/12/18 18:50	09/12/18 18:50	EPA 5030B	EPA 8260 B	A	JMG	D1
Xylene p/m	**397**	20.0	µg/L	09/12/18 18:50	09/12/18 18:50	EPA 5030B	EPA 8260 B	A	JMG	D1
Xylenes, Total	**593**	30.0	µg/L	09/12/18 18:50	09/12/18 18:50	EPA 5030B	EPA 8260 B	A	JMG	CC, D1
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*80-120*	*09/12/18 18:50*	*09/12/18 18:50*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*94.8 %*	*80-120*	*09/12/18 18:50*	*09/12/18 18:50*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*100 %*	*80-120*	*09/12/18 18:50*	*09/12/18 18:50*	*EPA 8260 B*				
Surrogate: Toluene-d8		*99.2 %*	*80-120*	*09/12/18 18:50*	*09/12/18 18:50*	*EPA 8260 B*				

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Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	Lab ID#: 8090272
2829 Woodland Bigler Highway	Project Number: 4923.18.01	Reported:
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	09/14/18 16:41

MW-5

8090272-06 (Aqueous) Sampled: 09/10/18 12:20

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	<2.00	2.00	µg/L	09/12/18 15:47	09/12/18 15:47	EPA 5030B	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	µg/L	09/12/18 15:47	09/12/18 15:47	EPA 5030B	EPA 8260 B	A	JMG	
Benzene	<2.00	2.00	µg/L	09/12/18 15:47	09/12/18 15:47	EPA 5030B	EPA 8260 B	A	JMG	
Ethylbenzene	<2.00	2.00	µg/L	09/12/18 15:47	09/12/18 15:47	EPA 5030B	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	µg/L	09/12/18 15:47	09/12/18 15:47	EPA 5030B	EPA 8260 B	A	JMG	
MTBE	<2.00	2.00	µg/L	09/12/18 15:47	09/12/18 15:47	EPA 5030B	EPA 8260 B	A	JMG	
Naphthalene	<2.00	2.00	µg/L	09/12/18 15:47	09/12/18 15:47	EPA 5030B	EPA 8260 B	A	JMG	
Toluene	<2.00	2.00	µg/L	09/12/18 15:47	09/12/18 15:47	EPA 5030B	EPA 8260 B	A	JMG	
Xylene o	<2.00	2.00	µg/L	09/12/18 15:47	09/12/18 15:47	EPA 5030B	EPA 8260 B	A	JMG	
Xylene p/m	<4.00	4.00	µg/L	09/12/18 15:47	09/12/18 15:47	EPA 5030B	EPA 8260 B	A	JMG	
Xylenes, Total	<6.00	6.00	µg/L	09/12/18 15:47	09/12/18 15:47	EPA 5030B	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*80-120*	*09/12/18 15:47*	*09/12/18 15:47*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*93.2 %*	*80-120*	*09/12/18 15:47*	*09/12/18 15:47*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*99.8 %*	*80-120*	*09/12/18 15:47*	*09/12/18 15:47*	*EPA 8260 B*				
Surrogate: Toluene-d8		*104 %*	*80-120*	*09/12/18 15:47*	*09/12/18 15:47*	*EPA 8260 B*				

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Woodland Food & Fuel, Inc.	Project Name: Woodland, PA	Lab ID#: 8090272
2829 Woodland Bigler Highway	Project Number: 4923.18.01	Reported:
Woodland PA, 16881	Lab Project Manager: Stephen Gampe	09/14/18 16:41

MW-6

8090272-07 (Aqueous) Sampled: 09/10/18 12:10

Analyte	Result	RL	Units	Prepared	Analyzed	Prep Method	Method	Lab	Analyst	Notes
Mountain Research, LLC										
Volatile Organic Compounds by GC/MS										
1,2,4-Trimethylbenzene	<2.00	2.00	µg/L	09/12/18 16:13	09/12/18 16:13	EPA 5030B	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	µg/L	09/12/18 16:13	09/12/18 16:13	EPA 5030B	EPA 8260 B	A	JMG	
Benzene	<2.00	2.00	µg/L	09/12/18 16:13	09/12/18 16:13	EPA 5030B	EPA 8260 B	A	JMG	
Ethylbenzene	<2.00	2.00	µg/L	09/12/18 16:13	09/12/18 16:13	EPA 5030B	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	µg/L	09/12/18 16:13	09/12/18 16:13	EPA 5030B	EPA 8260 B	A	JMG	
MTBE	<2.00	2.00	µg/L	09/12/18 16:13	09/12/18 16:13	EPA 5030B	EPA 8260 B	A	JMG	
Naphthalene	<2.00	2.00	µg/L	09/12/18 16:13	09/12/18 16:13	EPA 5030B	EPA 8260 B	A	JMG	
Toluene	<2.00	2.00	µg/L	09/12/18 16:13	09/12/18 16:13	EPA 5030B	EPA 8260 B	A	JMG	
Xylene o	<2.00	2.00	µg/L	09/12/18 16:13	09/12/18 16:13	EPA 5030B	EPA 8260 B	A	JMG	
Xylene p/m	<4.00	4.00	µg/L	09/12/18 16:13	09/12/18 16:13	EPA 5030B	EPA 8260 B	A	JMG	
Xylenes, Total	<6.00	6.00	µg/L	09/12/18 16:13	09/12/18 16:13	EPA 5030B	EPA 8260 B	A	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*80-120*	*09/12/18 16:13*	*09/12/18 16:13*	*EPA 8260 B*				
Surrogate: 4-Bromofluorobenzene		*92.5 %*	*80-120*	*09/12/18 16:13*	*09/12/18 16:13*	*EPA 8260 B*				
Surrogate: Dibromofluoromethane		*106 %*	*80-120*	*09/12/18 16:13*	*09/12/18 16:13*	*EPA 8260 B*				
Surrogate: Toluene-d8		*102 %*	*80-120*	*09/12/18 16:13*	*09/12/18 16:13*	*EPA 8260 B*				

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Woodland Food & Fuel, Inc. 2829 Woodland Bigler Highway Woodland PA, 16881	Project Name: Woodland, PA Project Number: 4923.18.01 Lab Project Manager: Stephen Gampe	**Lab ID#:** 8090272 **Reported:** 09/14/18 16:41

Certifications

Code	Description	Number	Expires
MDDOE	Maryland Department of the Environment	257	06/30/2018
PADEP-Altoona	Pennsylvania Department of Environmental Protection	009	03/31/2019
WVDEP-Altoona	West Virginia Department of Environmental Protection	225	12/31/2018
PADEP-DuBois	Pennsylvania Department of Environmental Protection	008	09/30/2018
WVDEP-HydroChem	West Virginia Department of Environmental Protection	038	11/01/2018

Notes and Definitions

DI	The sample was analyzed at a dilution.
CC	Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
RL	Reporting Limit - either the practical quantitation limit or the method detection limit
dry	Sample results reported on a dry weight basis
A	Analysis Performed by Mountain Research Altoona Laboratory - PADEP #07-00418, WVDEP #225
D	Analysis Performed by Mountain Research DuBois Laboratory - PADEP # 33-00258
W	Analysis Performed by Mountain Research - HydroChem Laboratory - WVDEP #038

Billing Group:	Phase:	PROJECT NAME
	SCR	GW Sampling
MR Project # 4923.18.01		SITE LOCATION Woodland, IA
CLIENT Woodland food & fuel		SAMPLER(S) AB

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CHAIN OF CUSTODY RECORD

NOTES:
Received On Ice: Y / N
Sample Temp: 3.1 °C
Comp Set
Comments:

MR PROJ. MGR. JH
Shipping Carrier:
Turn Around Time:
10 Day
3 Day X
1 Day
Comments:

SAMPLE ID	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	Preserve	LAB NUMBER
Trip Blank	9/10/18	0925	X		AQ	2 40 ml VOA	2A	X	HCL	01
MW-1		1230								02
MW-2		1305								03
MW-3		1155								04
MW-4		1235								05
MW-5		1220								06
MW-6		1210								07

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Lab Workorder #:	Log In Time: 0940
[signature]	9/10/18	1452	[signature]	9/10/18 1452	8090272	Staff: KA
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Labeled By:	Date: 9/12/18

MOUNTAIN RESEARCH SAMPLE RECEIPT PROTOCOL

WORK ORDER: 8090272

CLIENT: WOODLAND

DATE SAMPLED: 9/10/18 DATE RECEIVED: 9/10/18 TIME RECEIVED: 1452

1. CHECK ALL THAT APPLY: PA ☑ WV ☐ MD ☐ P W S ☐ NPDES/COMPLIANCE ☐ DAIRY ☐ RUSH ☑

2. WERE ANY OF THE SAMPLE CONTAINERS DAMAGED/LEAKING? (ARE CUSTODY SEALS BROKEN?) YES ☐ NO ☑

IF YES, EXPLAIN: _____

3. NUMBER OF CONTAINERS RECEIVED: 14

4. WERE THE SAMPLES RECEIVED ON ICE/OTHER ACCEPTABLE REFRIGERANT? YES ☑ NO ☐

IF NO, EXPLAIN: _____

5. RECEIVING TEMP: 3.1 °C TEMP CONTROL(S) PRESENT YES ☐ NO ☐ BOTTLE(S) TEMPED: _____

6. WERE THE SAMPLES PROPERLY PRESERVED? YES ☑ NO ☐

IF NO, EXPLAIN: _____

7. WERE THE SAMPLES COLLECTED IN THE CORRECT CONTAINERS? YES ☑ NO ☐

IF NO, EXPLAIN: _____

8. IS THERE HEADSPACE PRESENT FOR VOLATILES/ODOR SAMPLES? YES ☐ NO ☑ N/A ☐

9. WAS THE COC FILLED OUT PROPERLY? YES ☑ NO ☐

IF NO, EXPLAIN: _____

10. DID THE SAMPLE LABEL(S) CONTAIN ADEQUATE INFO? (CLIENT/DATE/TIME/PRESERVATIVE) YES ☑ NO ☐

IF NO, EXPLAIN: _____

11. WERE ANY OF THE SAMPLES RECEIVED OUTSIDE OF HOLDING TIME? YES ☐ NO ☑

IF YES, EXPLAIN: _____

12. DO THE SAMPLES REQUIRE ANALYSES THAT HAVE A SHORT HOLDING TIME? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____ **PLEASE NOTIFY LABORATORY ANALYSTS!**

13. IS SUBCONTRACTING REQUIRED? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____

14. WAS THE CLIENT CONTACTED? YES ☐ NO ☑ IF YES, FILL OUT THE FOLLOWING:

MR EMPLOYEE INITIALS: _____ CLIENT SPOKEN TO: _____ DATE/TIME: _____

OUTCOME: _____

SIGNATURE: _____

L60.30.A r2 Sample Receipt Form

For MR Use Only

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EPA Lab# PA00155

29 November 2018

Woodland Food & Fuel, Inc.
Dave Panasiti
2829 Woodland Bigler Highway
Woodland PA, 16881

Work Order: 8110391
Project: Woodland, PA

ANALYTICAL REPORT

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received
Trip Blank	8110391-01	Aqueous	11/13/18 05:30	11/13/18 12:36
MW-1BR	8110391-02	Aqueous	11/13/18 07:05	11/13/18 12:36
MW-3BR	8110391-03	Aqueous	11/13/18 07:45	11/13/18 12:36
MW-4BR	8110391-04	Aqueous	11/13/18 09:48	11/13/18 12:36
MW-5BR	8110391-05	Aqueous	11/13/18 09:34	11/13/18 12:36
MW-7	8110391-06	Aqueous	11/13/18 07:56	11/13/18 12:36
MW-8	8110391-07	Aqueous	11/13/18 09:05	11/13/18 12:36
MW-9	8110391-08	Aqueous	11/13/18 10:04	11/13/18 12:36

NARRATIVE

The result(s) contained in this report are respresentative of the sample(s) received. Analyses were performed in accordance with Mountain Research, LLC's applicable certifications and Quality Assurance Program, unless otherwise noted below or within the body of the report. Mountain Research, LLC is not responsible for the use or interpretation of the data included herein. If necessary, this analytical report must be reproduced in its entirety.

DEFINITIONS

X	The result is estimated because it was over the analysis calibration range.
DI	The sample was analyzed at a dilution.
CC	Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
dry	Sample results reported on a dry weight basis

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

APPROVED BY:

Stephen Gampe

Stephen Gampe, Assistant Laboratory Manag

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

MOUNTAIN RESEARCH, LLC

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110 McCracken Run Road
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814.371.6030 **Phone**
814.375.0823 **Fax**
EPA Lab# PA00155

Reported: 11/29/18 16:16

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: **Trip Blank**
LAB SAMPLE ID: 8110391-01
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 11/13/18 05:30
RECEIPT DATE: 11/13/18 12:36

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	<2.00	µg/L	2.00		11/22/18 19:02	11/22/18 19:02	EPA 5030B	EPA 8260 B	JMG	
1,3,5-Trimethylbenzene	<2.00	µg/L	2.00		11/22/18 19:02	11/22/18 19:02	EPA 5030B	EPA 8260 B	JMG	
Benzene	<2.00	µg/L	2.00		11/22/18 19:02	11/22/18 19:02	EPA 5030B	EPA 8260 B	JMG	
Ethylbenzene	<2.00	µg/L	2.00		11/22/18 19:02	11/22/18 19:02	EPA 5030B	EPA 8260 B	JMG	
Isopropylbenzene (Cumene)	<2.00	µg/L	2.00		11/22/18 19:02	11/22/18 19:02	EPA 5030B	EPA 8260 B	JMG	
MTBE	<2.00	µg/L	2.00		11/22/18 19:02	11/22/18 19:02	EPA 5030B	EPA 8260 B	JMG	
Naphthalene	<2.00	µg/L	2.00		11/22/18 19:02	11/22/18 19:02	EPA 5030B	EPA 8260 B	JMG	
Toluene	<2.00	µg/L	2.00		11/22/18 19:02	11/22/18 19:02	EPA 5030B	EPA 8260 B	JMG	
Xylene o	<2.00	µg/L	2.00		11/22/18 19:02	11/22/18 19:02	EPA 5030B	EPA 8260 B	JMG	
Xylene p/m	<4.00	µg/L	4.00		11/22/18 19:02	11/22/18 19:02	EPA 5030B	EPA 8260 B	JMG	
Xylenes, Total	<6.00	µg/L	6.00		11/22/18 19:02	11/22/18 19:02	EPA 5030B	EPA 8260 B	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*80-120*		*11/22/18 19:02*	*11/22/18 19:02*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene		*100 %*	*80-120*		*11/22/18 19:02*	*11/22/18 19:02*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane		*109 %*	*80-120*		*11/22/18 19:02*	*11/22/18 19:02*	*EPA 8260 B*			
Surrogate: Toluene-d8		*102 %*	*80-120*		*11/22/18 19:02*	*11/22/18 19:02*	*EPA 8260 B*			

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EPA Lab# PA00155

Reported: 11/29/18 16:16

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: MW-1BR
LAB SAMPLE ID: 8110391-02
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 11/13/18 07:05
RECEIPT DATE: 11/13/18 12:36

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	<2.00	µg/L	2.00		11/22/18 19:29	11/22/18 19:29	EPA 5030B	EPA 8260 B	JMG	
1,3,5-Trimethylbenzene	<2.00	µg/L	2.00		11/22/18 19:29	11/22/18 19:29	EPA 5030B	EPA 8260 B	JMG	
Benzene	<2.00	µg/L	2.00		11/22/18 19:29	11/22/18 19:29	EPA 5030B	EPA 8260 B	JMG	
Ethylbenzene	<2.00	µg/L	2.00		11/22/18 19:29	11/22/18 19:29	EPA 5030B	EPA 8260 B	JMG	
Isopropylbenzene (Cumene)	<2.00	µg/L	2.00		11/22/18 19:29	11/22/18 19:29	EPA 5030B	EPA 8260 B	JMG	
MTBE	<2.00	µg/L	2.00		11/22/18 19:29	11/22/18 19:29	EPA 5030B	EPA 8260 B	JMG	
Naphthalene	<2.00	µg/L	2.00		11/22/18 19:29	11/22/18 19:29	EPA 5030B	EPA 8260 B	JMG	
Toluene	<2.00	µg/L	2.00		11/22/18 19:29	11/22/18 19:29	EPA 5030B	EPA 8260 B	JMG	
Xylene o	<2.00	µg/L	2.00		11/22/18 19:29	11/22/18 19:29	EPA 5030B	EPA 8260 B	JMG	
Xylene p/m	<4.00	µg/L	4.00		11/22/18 19:29	11/22/18 19:29	EPA 5030B	EPA 8260 B	JMG	
Xylenes, Total	<6.00	µg/L	6.00		11/22/18 19:29	11/22/18 19:29	EPA 5030B	EPA 8260 B	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*80-120*		*11/22/18 19:29*	*11/22/18 19:29*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene		*104 %*	*80-120*		*11/22/18 19:29*	*11/22/18 19:29*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane		*104 %*	*80-120*		*11/22/18 19:29*	*11/22/18 19:29*	*EPA 8260 B*			
Surrogate: Toluene-d8		*104 %*	*80-120*		*11/22/18 19:29*	*11/22/18 19:29*	*EPA 8260 B*			

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Reported: 11/29/18 16:16

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: MW-3BR
LAB SAMPLE ID: 8110391-03
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 11/13/18 07:45
RECEIPT DATE: 11/13/18 12:36

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	**1530**	µg/L	200		11/22/18 19:56	11/22/18 19:56	EPA 5030B	EPA 8260 B	JMG	
1,3,5-Trimethylbenzene	**388**	µg/L	200		11/22/18 19:56	11/22/18 19:56	EPA 5030B	EPA 8260 B	JMG	
Benzene	**1600**	µg/L	200		11/22/18 19:56	11/22/18 19:56	EPA 5030B	EPA 8260 B	JMG	
Ethylbenzene	**2190**	µg/L	200		11/22/18 19:56	11/22/18 19:56	EPA 5030B	EPA 8260 B	JMG	
Isopropylbenzene (Cumene)	<200	µg/L	200		11/22/18 19:56	11/22/18 19:56	EPA 5030B	EPA 8260 B	JMG	
MTBE	<200	µg/L	200		11/22/18 19:56	11/22/18 19:56	EPA 5030B	EPA 8260 B	JMG	
Naphthalene	**248**	µg/L	200		11/22/18 19:56	11/22/18 19:56	EPA 5030B	EPA 8260 B	JMG	
Toluene	**15100**	µg/L	200		11/22/18 19:56	11/22/18 19:56	EPA 5030B	EPA 8260 B	JMG	X
Xylene o	**3180**	µg/L	200		11/22/18 19:56	11/22/18 19:56	EPA 5030B	EPA 8260 B	JMG	
Xylene p/m	**8120**	µg/L	400		11/22/18 19:56	11/22/18 19:56	EPA 5030B	EPA 8260 B	JMG	
Xylenes, Total	**11300**	µg/L	600		11/22/18 19:56	11/22/18 19:56	EPA 5030B	EPA 8260 B	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*80-120*		*11/22/18 19:56*	*11/22/18 19:56*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene		*99.5 %*	*80-120*		*11/22/18 19:56*	*11/22/18 19:56*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane		*102 %*	*80-120*		*11/22/18 19:56*	*11/22/18 19:56*	*EPA 8260 B*			
Surrogate: Toluene-d8		*106 %*	*80-120*		*11/22/18 19:56*	*11/22/18 19:56*	*EPA 8260 B*			

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Reported: 11/29/18 16:16

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: **MW-4BR**
LAB SAMPLE ID: 8110391-04
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 11/13/18 09:48
RECEIPT DATE: 11/13/18 12:36

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	**266**	µg/L	10.0		11/22/18 20:22	11/22/18 20:22	EPA 5030B	EPA 8260 B	JMG	
1,3,5-Trimethylbenzene	**63.8**	µg/L	10.0		11/22/18 20:22	11/22/18 20:22	EPA 5030B	EPA 8260 B	JMG	
Benzene	**748**	µg/L	10.0		11/22/18 20:22	11/22/18 20:22	EPA 5030B	EPA 8260 B	JMG	X
Ethylbenzene	**333**	µg/L	10.0		11/22/18 20:22	11/22/18 20:22	EPA 5030B	EPA 8260 B	JMG	
Isopropylbenzene (Cumene)	**16.2**	µg/L	10.0		11/22/18 20:22	11/22/18 20:22	EPA 5030B	EPA 8260 B	JMG	
MTBE	<10.0	µg/L	10.0		11/22/18 20:22	11/22/18 20:22	EPA 5030B	EPA 8260 B	JMG	
Naphthalene	**44.7**	µg/L	10.0		11/22/18 20:22	11/22/18 20:22	EPA 5030B	EPA 8260 B	JMG	
Toluene	**3140**	µg/L	10.0		11/22/18 20:22	11/22/18 20:22	EPA 5030B	EPA 8260 B	JMG	X
Xylene o	**845**	µg/L	10.0		11/22/18 20:22	11/22/18 20:22	EPA 5030B	EPA 8260 B	JMG	X
Xylene p/m	**1600**	µg/L	20.0		11/22/18 20:22	11/22/18 20:22	EPA 5030B	EPA 8260 B	JMG	X
Xylenes, Total	**2450**	µg/L	30.0		11/22/18 20:22	11/22/18 20:22	EPA 5030B	EPA 8260 B	JMG	CC, X
Surrogate: 1,2-Dichloroethane-d4		*96.1 %*	*80-120*		*11/22/18 20:22*	*11/22/18 20:22*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene		*103 %*	*80-120*		*11/22/18 20:22*	*11/22/18 20:22*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane		*108 %*	*80-120*		*11/22/18 20:22*	*11/22/18 20:22*	*EPA 8260 B*			
Surrogate: Toluene-d8		*103 %*	*80-120*		*11/22/18 20:22*	*11/22/18 20:22*	*EPA 8260 B*			

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

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EPA Lab# PA00155

Reported: 11/29/18 16:16

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: **MW-5BR**
LAB SAMPLE ID: 8110391-05
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 11/13/18 09:34
RECEIPT DATE: 11/13/18 12:36

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	**5.64**	µg/L	2.00		11/22/18 20:49	11/22/18 20:49	EPA 5030B	EPA 8260 B	JMG	
1,3,5-Trimethylbenzene	<2.00	µg/L	2.00		11/22/18 20:49	11/22/18 20:49	EPA 5030B	EPA 8260 B	JMG	
Benzene	<2.00	µg/L	2.00		11/22/18 20:49	11/22/18 20:49	EPA 5030B	EPA 8260 B	JMG	
Ethylbenzene	**2.96**	µg/L	2.00		11/22/18 20:49	11/22/18 20:49	EPA 5030B	EPA 8260 B	JMG	
Isopropylbenzene (Cumene)	<2.00	µg/L	2.00		11/22/18 20:49	11/22/18 20:49	EPA 5030B	EPA 8260 B	JMG	
MTBE	**3.05**	µg/L	2.00		11/22/18 20:49	11/22/18 20:49	EPA 5030B	EPA 8260 B	JMG	
Naphthalene	<2.00	µg/L	2.00		11/22/18 20:49	11/22/18 20:49	EPA 5030B	EPA 8260 B	JMG	
Toluene	**14.4**	µg/L	2.00		11/22/18 20:49	11/22/18 20:49	EPA 5030B	EPA 8260 B	JMG	
Xylene o	**5.56**	µg/L	2.00		11/22/18 20:49	11/22/18 20:49	EPA 5030B	EPA 8260 B	JMG	
Xylene p/m	**13.5**	µg/L	4.00		11/22/18 20:49	11/22/18 20:49	EPA 5030B	EPA 8260 B	JMG	
Xylenes, Total	**19.1**	µg/L	6.00		11/22/18 20:49	11/22/18 20:49	EPA 5030B	EPA 8260 B	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*98.0 %*	*80-120*		*11/22/18 20:49*	*11/22/18 20:49*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene		*101 %*	*80-120*		*11/22/18 20:49*	*11/22/18 20:49*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane		*108 %*	*80-120*		*11/22/18 20:49*	*11/22/18 20:49*	*EPA 8260 B*			
Surrogate: Toluene-d8		*102 %*	*80-120*		*11/22/18 20:49*	*11/22/18 20:49*	*EPA 8260 B*			

CERTIFICATIONS

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EPA Lab# PA00155

Reported: 11/29/18 16:16

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: MW-7
LAB SAMPLE ID: 8110391-06
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 11/13/18 07:56
RECEIPT DATE: 11/13/18 12:36

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	**17.1**	µg/L	2.00		11/22/18 21:15	11/22/18 21:15	EPA 5030B	EPA 8260 B	JMG	
1,3,5-Trimethylbenzene	**23.0**	µg/L	2.00		11/22/18 21:15	11/22/18 21:15	EPA 5030B	EPA 8260 B	JMG	
Benzene	**2.98**	µg/L	2.00		11/22/18 21:15	11/22/18 21:15	EPA 5030B	EPA 8260 B	JMG	
Ethylbenzene	**4.12**	µg/L	2.00		11/22/18 21:15	11/22/18 21:15	EPA 5030B	EPA 8260 B	JMG	
Isopropylbenzene (Cumene)	<2.00	µg/L	2.00		11/22/18 21:15	11/22/18 21:15	EPA 5030B	EPA 8260 B	JMG	
MTBE	<2.00	µg/L	2.00		11/22/18 21:15	11/22/18 21:15	EPA 5030B	EPA 8260 B	JMG	
Naphthalene	<2.00	µg/L	2.00		11/22/18 21:15	11/22/18 21:15	EPA 5030B	EPA 8260 B	JMG	
Toluene	**25.5**	µg/L	2.00		11/22/18 21:15	11/22/18 21:15	EPA 5030B	EPA 8260 B	JMG	
Xylene o	**31.1**	µg/L	2.00		11/22/18 21:15	11/22/18 21:15	EPA 5030B	EPA 8260 B	JMG	
Xylene p/m	**31.3**	µg/L	4.00		11/22/18 21:15	11/22/18 21:15	EPA 5030B	EPA 8260 B	JMG	
Xylenes, Total	**62.4**	µg/L	6.00		11/22/18 21:15	11/22/18 21:15	EPA 5030B	EPA 8260 B	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*80-120*		*11/22/18 21:15*	*11/22/18 21:15*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene		*102 %*	*80-120*		*11/22/18 21:15*	*11/22/18 21:15*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane		*112 %*	*80-120*		*11/22/18 21:15*	*11/22/18 21:15*	*EPA 8260 B*			
Surrogate: Toluene-d8		*104 %*	*80-120*		*11/22/18 21:15*	*11/22/18 21:15*	*EPA 8260 B*			

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Reported: 11/29/18 16:16

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: **MW-8**
LAB SAMPLE ID: 8110391-07
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 11/13/18 09:05
RECEIPT DATE: 11/13/18 12:36

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	<2.00	µg/L	2.00		11/22/18 21:42	11/22/18 21:42	EPA 5030B	EPA 8260 B	JMG	
1,3,5-Trimethylbenzene	<2.00	µg/L	2.00		11/22/18 21:42	11/22/18 21:42	EPA 5030B	EPA 8260 B	JMG	
Benzene	**3.34**	µg/L	2.00		11/22/18 21:42	11/22/18 21:42	EPA 5030B	EPA 8260 B	JMG	
Ethylbenzene	<2.00	µg/L	2.00		11/22/18 21:42	11/22/18 21:42	EPA 5030B	EPA 8260 B	JMG	
Isopropylbenzene (Cumene)	<2.00	µg/L	2.00		11/22/18 21:42	11/22/18 21:42	EPA 5030B	EPA 8260 B	JMG	
MTBE	**20.0**	µg/L	2.00		11/22/18 21:42	11/22/18 21:42	EPA 5030B	EPA 8260 B	JMG	
Naphthalene	<2.00	µg/L	2.00		11/22/18 21:42	11/22/18 21:42	EPA 5030B	EPA 8260 B	JMG	
Toluene	<2.00	µg/L	2.00		11/22/18 21:42	11/22/18 21:42	EPA 5030B	EPA 8260 B	JMG	
Xylene o	<2.00	µg/L	2.00		11/22/18 21:42	11/22/18 21:42	EPA 5030B	EPA 8260 B	JMG	
Xylene p/m	<4.00	µg/L	4.00		11/22/18 21:42	11/22/18 21:42	EPA 5030B	EPA 8260 B	JMG	
Xylenes, Total	<6.00	µg/L	6.00		11/22/18 21:42	11/22/18 21:42	EPA 5030B	EPA 8260 B	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*80-120*		*11/22/18 21:42*	*11/22/18 21:42*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene		*103 %*	*80-120*		*11/22/18 21:42*	*11/22/18 21:42*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane		*111 %*	*80-120*		*11/22/18 21:42*	*11/22/18 21:42*	*EPA 8260 B*			
Surrogate: Toluene-d8		*102 %*	*80-120*		*11/22/18 21:42*	*11/22/18 21:42*	*EPA 8260 B*			

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

MOUNTAIN RESEARCH, LLC

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EPA Lab# PA00155

Reported: 11/29/18 16:16

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: **MW-9**
LAB SAMPLE ID: 8110391-08
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 11/13/18 10:04
RECEIPT DATE: 11/13/18 12:36

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	<2.00	µg/L	2.00		11/22/18 22:09	11/22/18 22:09	EPA 5030B	EPA 8260 B	JMG	
1,3,5-Trimethylbenzene	<2.00	µg/L	2.00		11/22/18 22:09	11/22/18 22:09	EPA 5030B	EPA 8260 B	JMG	
Benzene	**8.92**	µg/L	2.00		11/22/18 22:09	11/22/18 22:09	EPA 5030B	EPA 8260 B	JMG	
Ethylbenzene	<2.00	µg/L	2.00		11/22/18 22:09	11/22/18 22:09	EPA 5030B	EPA 8260 B	JMG	
Isopropylbenzene (Cumene)	<2.00	µg/L	2.00		11/22/18 22:09	11/22/18 22:09	EPA 5030B	EPA 8260 B	JMG	
MTBE	**49.1**	µg/L	2.00		11/22/18 22:09	11/22/18 22:09	EPA 5030B	EPA 8260 B	JMG	
Naphthalene	<2.00	µg/L	2.00		11/22/18 22:09	11/22/18 22:09	EPA 5030B	EPA 8260 B	JMG	
Toluene	**5.67**	µg/L	2.00		11/22/18 22:09	11/22/18 22:09	EPA 5030B	EPA 8260 B	JMG	
Xylene o	**4.06**	µg/L	2.00		11/22/18 22:09	11/22/18 22:09	EPA 5030B	EPA 8260 B	JMG	
Xylene p/m	**5.95**	µg/L	4.00		11/22/18 22:09	11/22/18 22:09	EPA 5030B	EPA 8260 B	JMG	
Xylenes, Total	**10.0**	µg/L	6.00		11/22/18 22:09	11/22/18 22:09	EPA 5030B	EPA 8260 B	JMG	CC
Surrogate: 1,2-Dichloroethane-d4	*97.4 %*		*80-120*		*11/22/18 22:09*	*11/22/18 22:09*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene	*99.6 %*		*80-120*		*11/22/18 22:09*	*11/22/18 22:09*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane	*107 %*		*80-120*		*11/22/18 22:09*	*11/22/18 22:09*	*EPA 8260 B*			
Surrogate: Toluene-d8	*103 %*		*80-120*		*11/22/18 22:09*	*11/22/18 22:09*	*EPA 8260 B*			

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

BALL POINT PEN ONLY

Billing Group:	Phase:	PROJECT NAME: GW Sampling
MR Project #: 4923.18.01		SITE LOCATION: Woodland, PA
CLIENT: Woodland Food & Fuel		SAMPLER(S): Taylor R

NOTES:
Received On Ice: (Y) / N: 4.5°C
Sample Temp: _____
PWSID #: _____
Seal In Tack: Y / N
Other: _____
Comments: _____

MOUNTAIN RESEARCH LI
825 25th Street, Altoona, PA 16601 (814) 949-2034 (8(
110 McCracken Run Road, Dubois, PA 15801 (814) 371-6030 Fa

CHAIN OF CUSTODY RECORD

MR PROJ. MGR. JH

Shipping Carrier: _____

Turn Around Time:
10 Day ____
3 Day X
1 Day ____

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	Analyses Requested: 8260B							Preserve	LAB NUMBER
Trip Blank	11-13-18	0530	X		AQ	2 40mL VOA	2A	X							HCl	01
MW-1BR		0705														02
~~MW-2BR~~																
MW-3BR		0745														03
MW-4BR		0948														04
MW-5BR		0934														05
MW-7		0756														06
MW-8		0905														07
MW-9		1004														08

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #:	Log In Time:
Taylor Rydbn	11-13-18	12:36	[signature]	11-13-18	12:36	811039	1408
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Staff: RD
							Date: 11/14/18

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

H:\H\HYDRO\Field Forms\C-O-C\Blank COC_v1_04_08

MOUNTAIN RESEARCH SAMPLE RECEIPT PROTOCOL

WORK ORDER: 8110391

CLIENT: Woodland Food & Fuel

DATE SAMPLED: 11/13/18 DATE RECEIVED: 11/13/18 TIME RECEIVED: 12:36

1. CHECK ALL THAT APPLY: PA ☑ WV ☐ MD ☐ P W S ☐ NPDES/COMPLIANCE ☐ DAIRY ☐ RUSH ☐

2. WERE ANY OF THE SAMPLE CONTAINERS DAMAGED/LEAKING? (ARE CUSTODY SEALS BROKEN?) YES ☐ NO ☑

IF YES, EXPLAIN: _____

3. NUMBER OF CONTAINERS RECEIVED: 16

4. WERE THE SAMPLES RECEIVED ON ICE/OTHER ACCEPTABLE REFRIGERANT? YES ☑ NO ☐

IF NO, EXPLAIN: _____

5. RECEIVING TEMP: 4.5 °C TEMP CONTROL(S) PRESENT YES ☐ NO ☑ BOTTLE(S) TEMPED: 1

6. WERE THE SAMPLES PROPERLY PRESERVED? YES ☑ NO ☐

IF NO, EXPLAIN: _____

7. WERE THE SAMPLES COLLECTED IN THE CORRECT CONTAINERS? YES ☑ NO ☐

IF NO, EXPLAIN: _____

8. IS THERE HEADSPACE PRESENT FOR VOLATILES/ODOR SAMPLES? YES ☐ NO ☑ N/A ☐

9. WAS THE COC FILLED OUT PROPERLY? YES ☑ NO ☐

IF NO, EXPLAIN: _____

10. DID THE SAMPLE LABEL(S) CONTAIN ADEQUATE INFO? (CLIENT/DATE/TIME/PRESERVATIVE) YES ☑ NO ☐

IF NO, EXPLAIN: _____

11. WERE ANY OF THE SAMPLES RECEIVED OUTSIDE OF HOLDING TIME? YES ☐ NO ☑

IF YES, EXPLAIN: _____

12. DO THE SAMPLES REQUIRE ANALYSES THAT HAVE A SHORT HOLDING TIME? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____ **PLEASE NOTIFY LABORATORY ANALYSTS!**

13. IS SUBCONTRACTING REQUIRED? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____

14. WAS THE CLIENT CONTACTED? YES ☐ NO ☑ IF YES, FILL OUT THE FOLLOWING:

MR EMPLOYEE INITIALS: CLIENT SPOKEN TO: DATE/TIME:

OUTCOME:

SIGNATURE: [signature]

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EPA Lab# PA00155

05 December 2018

Woodland Food & Fuel, Inc.
Dave Panasiti
2829 Woodland Bigler Highway
Woodland PA, 16881

Work Order: 8110695
Project: Woodland, PA

ANALYTICAL REPORT

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received
MW-1BR	8110695-01	Aqueous	11/27/18 15:20	11/28/18 08:15
MW-3BR	8110695-02	Aqueous	11/27/18 12:08	11/28/18 08:15
MW-4BR	8110695-03	Aqueous	11/27/18 10:05	11/28/18 08:15
MW-5BR	8110695-04	Aqueous	11/27/18 10:55	11/28/18 08:15
MW-7	8110695-05	Aqueous	11/27/18 12:30	11/28/18 08:15
MW-8	8110695-06	Aqueous	11/27/18 13:50	11/28/18 08:15
MW-9	8110695-07	Aqueous	11/27/18 11:35	11/28/18 08:15
MW-3	8110695-08	Aqueous	11/27/18 14:50	11/28/18 08:15

NARRATIVE

The result(s) contained in this report are respresentative of the sample(s) received. Analyses were performed in accordance with Mountain Research, LLC's applicable certifications and Quality Assurance Program, unless otherwise noted below or within the body of the report. Mountain Research, LLC is not responsible for the use or interpretation of the data included herein. If necessary, this analytical report must be reproduced in its entirety.

DEFINITIONS

N	Matrix duplicate spike recovery was outside of the laboratory acceptance criteria.
D2	The Relative Percent Difference between the matrix spike and its duplicate did not meet laboratory acceptance criteria.
D1	The sample was analyzed at a dilution.
CC	Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
dry	Sample results reported on a dry weight basis

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

APPROVED BY:

Amanda Dutko, Laboratory Director

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

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EPA Lab# PA00155

Reported: 12/05/18 14:27

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: **MW-1BR**
LAB SAMPLE ID: 8110695-01
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 11/27/18 15:20
RECEIPT DATE: 11/28/18 8:15

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	<2.00	µg/L	2.00		11/28/18 14:48	11/28/18 14:48	EPA 5030B	EPA 8260 B	JMG	
1,3,5-Trimethylbenzene	<2.00	µg/L	2.00		11/28/18 14:48	11/28/18 14:48	EPA 5030B	EPA 8260 B	JMG	
Benzene	<2.00	µg/L	2.00		11/28/18 14:48	11/28/18 14:48	EPA 5030B	EPA 8260 B	JMG	
Ethylbenzene	<2.00	µg/L	2.00		11/28/18 14:48	11/28/18 14:48	EPA 5030B	EPA 8260 B	JMG	
Isopropylbenzene (Cumene)	<2.00	µg/L	2.00		11/28/18 14:48	11/28/18 14:48	EPA 5030B	EPA 8260 B	JMG	
MTBE	<2.00	µg/L	2.00		11/28/18 14:48	11/28/18 14:48	EPA 5030B	EPA 8260 B	JMG	
Naphthalene	<2.00	µg/L	2.00		11/28/18 14:48	11/28/18 14:48	EPA 5030B	EPA 8260 B	JMG	D2, N
Toluene	<2.00	µg/L	2.00		11/28/18 14:48	11/28/18 14:48	EPA 5030B	EPA 8260 B	JMG	
Xylene o	<2.00	µg/L	2.00		11/28/18 14:48	11/28/18 14:48	EPA 5030B	EPA 8260 B	JMG	
Xylene p/m	<4.00	µg/L	4.00		11/28/18 14:48	11/28/18 14:48	EPA 5030B	EPA 8260 B	JMG	
Xylenes, Total	<6.00	µg/L	6.00		11/28/18 14:48	11/28/18 14:48	EPA 5030B	EPA 8260 B	JMG	CC
Surrogate: 1,2-Dichloroethane-d4	*95.4 %*		*80-120*		*11/28/18 14:48*	*11/28/18 14:48*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene	*103 %*		*80-120*		*11/28/18 14:48*	*11/28/18 14:48*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane	*104 %*		*80-120*		*11/28/18 14:48*	*11/28/18 14:48*	*EPA 8260 B*			
Surrogate: Toluene-d8	*96.8 %*		*80-120*		*11/28/18 14:48*	*11/28/18 14:48*	*EPA 8260 B*			

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

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110 McCracken Run Road
DuBois, PA 15801
814.371.6030 **Phone**
814.375.0823 **Fax**
EPA Lab# PA00155

Reported: 12/05/18 14:27

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: **MW-3BR**
LAB SAMPLE ID: 8110695-02
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 11/27/18 12:08
RECEIPT DATE: 11/28/18 8:15

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	**346**	µg/L	20.0		11/30/18 15:22	11/30/18 15:22	EPA 5030B	EPA 8260 B	JMG	D1
1,3,5-Trimethylbenzene	**144**	µg/L	20.0		11/30/18 15:22	11/30/18 15:22	EPA 5030B	EPA 8260 B	JMG	D1
Benzene	**88.2**	µg/L	20.0		11/30/18 15:22	11/30/18 15:22	EPA 5030B	EPA 8260 B	JMG	D1
Ethylbenzene	**166**	µg/L	20.0		11/30/18 15:22	11/30/18 15:22	EPA 5030B	EPA 8260 B	JMG	D1
Isopropylbenzene (Cumene)	**37.6**	µg/L	20.0		11/30/18 15:22	11/30/18 15:22	EPA 5030B	EPA 8260 B	JMG	D1
MTBE	<20.0	µg/L	20.0		11/30/18 15:22	11/30/18 15:22	EPA 5030B	EPA 8260 B	JMG	D1
Naphthalene	**31.2**	µg/L	20.0		11/30/18 15:22	11/30/18 15:22	EPA 5030B	EPA 8260 B	JMG	D1
Toluene	**588**	µg/L	20.0		11/30/18 15:22	11/30/18 15:22	EPA 5030B	EPA 8260 B	JMG	D1
Xylene o	**274**	µg/L	20.0		11/30/18 15:22	11/30/18 15:22	EPA 5030B	EPA 8260 B	JMG	D1
Xylene p/m	**701**	µg/L	40.0		11/30/18 15:22	11/30/18 15:22	EPA 5030B	EPA 8260 B	JMG	D1
Xylenes, Total	**975**	µg/L	60.0		11/30/18 15:22	11/30/18 15:22	EPA 5030B	EPA 8260 B	JMG	CC, D1
Surrogate: 1,2-Dichloroethane-d4		*96.2 %*	*80-120*		*11/30/18 15:22*	*11/30/18 15:22*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene		*102 %*	*80-120*		*11/30/18 15:22*	*11/30/18 15:22*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane		*104 %*	*80-120*		*11/30/18 15:22*	*11/30/18 15:22*	*EPA 8260 B*			
Surrogate: Toluene-d8		*103 %*	*80-120*		*11/30/18 15:22*	*11/30/18 15:22*	*EPA 8260 B*			

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

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EPA Lab# PA00155

Reported: 12/05/18 14:27

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: **MW-4BR**
LAB SAMPLE ID: 8110695-03
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 11/27/18 10:05
RECEIPT DATE: 11/28/18 8:15

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	<200	µg/L	200		11/28/18 21:24	11/28/18 21:24	EPA 5030B	EPA 8260 B	JMG	D1
1,3,5-Trimethylbenzene	<200	µg/L	200		11/28/18 21:24	11/28/18 21:24	EPA 5030B	EPA 8260 B	JMG	D1
Benzene	**478**	µg/L	200		11/28/18 21:24	11/28/18 21:24	EPA 5030B	EPA 8260 B	JMG	D1
Ethylbenzene	**363**	µg/L	200		11/28/18 21:24	11/28/18 21:24	EPA 5030B	EPA 8260 B	JMG	D1
Isopropylbenzene (Cumene)	<200	µg/L	200		11/28/18 21:24	11/28/18 21:24	EPA 5030B	EPA 8260 B	JMG	D1
MTBE	<200	µg/L	200		11/28/18 21:24	11/28/18 21:24	EPA 5030B	EPA 8260 B	JMG	D1
Naphthalene	<200	µg/L	200		11/28/18 21:24	11/28/18 21:24	EPA 5030B	EPA 8260 B	JMG	D1
Toluene	**4470**	µg/L	200		11/28/18 21:24	11/28/18 21:24	EPA 5030B	EPA 8260 B	JMG	D1
Xylene o	**688**	µg/L	200		11/28/18 21:24	11/28/18 21:24	EPA 5030B	EPA 8260 B	JMG	D1
Xylene p/m	**1490**	µg/L	400		11/28/18 21:24	11/28/18 21:24	EPA 5030B	EPA 8260 B	JMG	D1
Xylenes, Total	**2180**	µg/L	600		11/28/18 21:24	11/28/18 21:24	EPA 5030B	EPA 8260 B	JMG	CC, D1
Surrogate: 1,2-Dichloroethane-d4	*95.8 %*		*80-120*		*11/28/18 21:24*	*11/28/18 21:24*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene	*104 %*		*80-120*		*11/28/18 21:24*	*11/28/18 21:24*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane	*105 %*		*80-120*		*11/28/18 21:24*	*11/28/18 21:24*	*EPA 8260 B*			
Surrogate: Toluene-d8	*99.8 %*		*80-120*		*11/28/18 21:24*	*11/28/18 21:24*	*EPA 8260 B*			

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

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EPA Lab# PA00155

Reported: 12/05/18 14:27

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: **MW-5BR**
LAB SAMPLE ID: 8110695-04
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 11/27/18 10:55
RECEIPT DATE: 11/28/18 8:15

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	**3.62**	µg/L	2.00		11/28/18 18:46	11/28/18 18:46	EPA 5030B	EPA 8260 B	JMG	
1,3,5-Trimethylbenzene	<2.00	µg/L	2.00		11/28/18 18:46	11/28/18 18:46	EPA 5030B	EPA 8260 B	JMG	
Benzene	**5.53**	µg/L	2.00		11/28/18 18:46	11/28/18 18:46	EPA 5030B	EPA 8260 B	JMG	
Ethylbenzene	**3.16**	µg/L	2.00		11/28/18 18:46	11/28/18 18:46	EPA 5030B	EPA 8260 B	JMG	
Isopropylbenzene (Cumene)	<2.00	µg/L	2.00		11/28/18 18:46	11/28/18 18:46	EPA 5030B	EPA 8260 B	JMG	
MTBE	**6.83**	µg/L	2.00		11/28/18 18:46	11/28/18 18:46	EPA 5030B	EPA 8260 B	JMG	
Naphthalene	<2.00	µg/L	2.00		11/28/18 18:46	11/28/18 18:46	EPA 5030B	EPA 8260 B	JMG	
Toluene	**39.8**	µg/L	2.00		11/28/18 18:46	11/28/18 18:46	EPA 5030B	EPA 8260 B	JMG	
Xylene o	**14.0**	µg/L	2.00		11/28/18 18:46	11/28/18 18:46	EPA 5030B	EPA 8260 B	JMG	
Xylene p/m	**22.1**	µg/L	4.00		11/28/18 18:46	11/28/18 18:46	EPA 5030B	EPA 8260 B	JMG	
Xylenes, Total	**36.1**	µg/L	6.00		11/28/18 18:46	11/28/18 18:46	EPA 5030B	EPA 8260 B	JMG	CC
Surrogate: 1,2-Dichloroethane-d4	*96.4 %*		*80-120*		*11/28/18 18:46*	*11/28/18 18:46*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene	*107 %*		*80-120*		*11/28/18 18:46*	*11/28/18 18:46*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane	*102 %*		*80-120*		*11/28/18 18:46*	*11/28/18 18:46*	*EPA 8260 B*			
Surrogate: Toluene-d8	*101 %*		*80-120*		*11/28/18 18:46*	*11/28/18 18:46*	*EPA 8260 B*			

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

MOUNTAIN RESEARCH, LLC

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EPA Lab# PA00165

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110 McCracken Run Road
DuBois, PA 15801
814.371.6030 **Phone**
814.375.0823 **Fax**
EPA Lab# PA00155

Reported: 12/05/18 14:27

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: MW-7
LAB SAMPLE ID: 8110695-05
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 11/27/18 12:30
RECEIPT DATE: 11/28/18 8:15

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	**69.2**	µg/L	2.00		11/28/18 19:12	11/28/18 19:12	EPA 5030B	EPA 8260 B	JMG	
1,3,5-Trimethylbenzene	**52.2**	µg/L	2.00		11/28/18 19:12	11/28/18 19:12	EPA 5030B	EPA 8260 B	JMG	
Benzene	**6.62**	µg/L	2.00		11/28/18 19:12	11/28/18 19:12	EPA 5030B	EPA 8260 B	JMG	
Ethylbenzene	**18.1**	µg/L	2.00		11/28/18 19:12	11/28/18 19:12	EPA 5030B	EPA 8260 B	JMG	
Isopropylbenzene (Cumene)	**2.45**	µg/L	2.00		11/28/18 19:12	11/28/18 19:12	EPA 5030B	EPA 8260 B	JMG	
MTBE	<2.00	µg/L	2.00		11/28/18 19:12	11/28/18 19:12	EPA 5030B	EPA 8260 B	JMG	
Naphthalene	**4.67**	µg/L	2.00		11/28/18 19:12	11/28/18 19:12	EPA 5030B	EPA 8260 B	JMG	
Toluene	**183**	µg/L	20.0		11/28/18 19:12	11/30/18 14:29	EPA 5030B	EPA 8260 B	JMG	D1
Xylene o	**189**	µg/L	20.0		11/28/18 19:12	11/30/18 14:29	EPA 5030B	EPA 8260 B	JMG	D1
Xylene p/m	**282**	µg/L	40.0		11/28/18 19:12	11/30/18 14:29	EPA 5030B	EPA 8260 B	JMG	D1
Xylenes, Total	**471**	µg/L	60.0		11/28/18 19:12	11/30/18 14:29	EPA 5030B	EPA 8260 B	JMG	CC, D1
Surrogate: 1,2-Dichloroethane-d4	*93.8 %*		*80-120*		*11/28/18 19:12*	*11/28/18 19:12*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene	*104 %*		*80-120*		*11/28/18 19:12*	*11/28/18 19:12*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane	*98.7 %*		*80-120*		*11/28/18 19:12*	*11/28/18 19:12*	*EPA 8260 B*			
Surrogate: Toluene-d8	*97.1 %*		*80-120*		*11/28/18 19:12*	*11/28/18 19:12*	*EPA 8260 B*			

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

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EPA Lab# PA00155

Reported: 12/05/18 14:27

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: **MW-8**
LAB SAMPLE ID: 8110695-06
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 11/27/18 13:50
RECEIPT DATE: 11/28/18 8:15

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	<2.00	µg/L	2.00		11/28/18 17:53	11/28/18 17:53	EPA 5030B	EPA 8260 B	JMG	
1,3,5-Trimethylbenzene	<2.00	µg/L	2.00		11/28/18 17:53	11/28/18 17:53	EPA 5030B	EPA 8260 B	JMG	
Benzene	**23.6**	µg/L	2.00		11/28/18 17:53	11/28/18 17:53	EPA 5030B	EPA 8260 B	JMG	
Ethylbenzene	<2.00	µg/L	2.00		11/28/18 17:53	11/28/18 17:53	EPA 5030B	EPA 8260 B	JMG	
Isopropylbenzene (Cumene)	<2.00	µg/L	2.00		11/28/18 17:53	11/28/18 17:53	EPA 5030B	EPA 8260 B	JMG	
MTBE	**11.8**	µg/L	2.00		11/28/18 17:53	11/28/18 17:53	EPA 5030B	EPA 8260 B	JMG	
Naphthalene	<2.00	µg/L	2.00		11/28/18 17:53	11/28/18 17:53	EPA 5030B	EPA 8260 B	JMG	
Toluene	<2.00	µg/L	2.00		11/28/18 17:53	11/28/18 17:53	EPA 5030B	EPA 8260 B	JMG	
Xylene o	<2.00	µg/L	2.00		11/28/18 17:53	11/28/18 17:53	EPA 5030B	EPA 8260 B	JMG	
Xylene p/m	<4.00	µg/L	4.00		11/28/18 17:53	11/28/18 17:53	EPA 5030B	EPA 8260 B	JMG	
Xylenes, Total	<6.00	µg/L	6.00		11/28/18 17:53	11/28/18 17:53	EPA 5030B	EPA 8260 B	JMG	CC
Surrogate: 1,2-Dichloroethane-d4	*98.6 %*		*80-120*		*11/28/18 17:53*	*11/28/18 17:53*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene	*105 %*		*80-120*		*11/28/18 17:53*	*11/28/18 17:53*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane	*101 %*		*80-120*		*11/28/18 17:53*	*11/28/18 17:53*	*EPA 8260 B*			
Surrogate: Toluene-d8	*99.6 %*		*80-120*		*11/28/18 17:53*	*11/28/18 17:53*	*EPA 8260 B*			

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

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814.375.0823 **Fax**
EPA Lab# PA00155

Reported: 12/05/18 14:27

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: **MW-9**
LAB SAMPLE ID: 8110695-07
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 11/27/18 11:35
RECEIPT DATE: 11/28/18 8:15

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	**24.6**	µg/L	2.00		11/28/18 18:20	11/28/18 18:20	EPA 5030B	EPA 8260 B	JMG	
1,3,5-Trimethylbenzene	**6.76**	µg/L	2.00		11/28/18 18:20	11/28/18 18:20	EPA 5030B	EPA 8260 B	JMG	
Benzene	**130**	µg/L	20.0		11/28/18 18:20	11/30/18 15:48	EPA 5030B	EPA 8260 B	JMG	D1
Ethylbenzene	**60.9**	µg/L	2.00		11/28/18 18:20	11/28/18 18:20	EPA 5030B	EPA 8260 B	JMG	
Isopropylbenzene (Cumene)	**3.83**	µg/L	2.00		11/28/18 18:20	11/28/18 18:20	EPA 5030B	EPA 8260 B	JMG	
MTBE	**22.3**	µg/L	2.00		11/28/18 18:20	11/28/18 18:20	EPA 5030B	EPA 8260 B	JMG	
Naphthalene	<2.00	µg/L	2.00		11/28/18 18:20	11/28/18 18:20	EPA 5030B	EPA 8260 B	JMG	
Toluene	**281**	µg/L	20.0		11/28/18 18:20	11/30/18 15:48	EPA 5030B	EPA 8260 B	JMG	D1
Xylene o	**78.0**	µg/L	20.0		11/28/18 18:20	11/30/18 15:48	EPA 5030B	EPA 8260 B	JMG	D1
Xylene p/m	**193**	µg/L	4.00		11/28/18 18:20	11/28/18 18:20	EPA 5030B	EPA 8260 B	JMG	
Xylenes, Total	**271**	µg/L	24.0		11/28/18 18:20	11/30/18 15:48	EPA 5030B	EPA 8260 B	JMG	CC, D1
Surrogate: 1,2-Dichloroethane-d4	*98.5 %*		*80-120*		*11/28/18 18:20*	*11/28/18 18:20*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene	*104 %*		*80-120*		*11/28/18 18:20*	*11/28/18 18:20*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane	*99.6 %*		*80-120*		*11/28/18 18:20*	*11/28/18 18:20*	*EPA 8260 B*			
Surrogate: Toluene-d8	*98.6 %*		*80-120*		*11/28/18 18:20*	*11/28/18 18:20*	*EPA 8260 B*			

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

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EPA Lab# PA00155

Reported: 12/05/18 14:27

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: **MW-3**
LAB SAMPLE ID: 8110695-08
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 11/27/18 14:50
RECEIPT DATE: 11/28/18 8:15

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	**2530**	µg/L	200		11/28/18 19:39	11/28/18 19:39	EPA 5030B	EPA 8260 B	JMG	D1
1,3,5-Trimethylbenzene	**637**	µg/L	200		11/28/18 19:39	11/28/18 19:39	EPA 5030B	EPA 8260 B	JMG	D1
Benzene	**3470**	µg/L	200		11/28/18 19:39	11/28/18 19:39	EPA 5030B	EPA 8260 B	JMG	D1
Ethylbenzene	**2430**	µg/L	200		11/28/18 19:39	11/28/18 19:39	EPA 5030B	EPA 8260 B	JMG	D1
Isopropylbenzene (Cumene)	**222**	µg/L	200		11/28/18 19:39	11/28/18 19:39	EPA 5030B	EPA 8260 B	JMG	D1
MTBE	<200	µg/L	200		11/28/18 19:39	11/28/18 19:39	EPA 5030B	EPA 8260 B	JMG	D1
Naphthalene	**573**	µg/L	200		11/28/18 19:39	11/28/18 19:39	EPA 5030B	EPA 8260 B	JMG	D1
Toluene	**17200**	µg/L	2000		11/28/18 19:39	11/28/18 20:05	EPA 5030B	EPA 8260 B	JMG	D1
Xylene o	**5020**	µg/L	200		11/28/18 19:39	11/28/18 19:39	EPA 5030B	EPA 8260 B	JMG	D1
Xylene p/m	**10500**	µg/L	400		11/28/18 19:39	11/28/18 19:39	EPA 5030B	EPA 8260 B	JMG	D1
Xylenes, Total	**15600**	µg/L	600		11/28/18 19:39	11/28/18 19:39	EPA 5030B	EPA 8260 B	JMG	CC, D1
Surrogate: 1,2-Dichloroethane-d4	*94.6 %*		*80-120*		*11/28/18 19:39*	*11/28/18 19:39*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene	*105 %*		*80-120*		*11/28/18 19:39*	*11/28/18 19:39*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane	*102 %*		*80-120*		*11/28/18 19:39*	*11/28/18 19:39*	*EPA 8260 B*			
Surrogate: Toluene-d8	*98.3 %*		*80-120*		*11/28/18 19:39*	*11/28/18 19:39*	*EPA 8260 B*			

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

BALL POINT PEN ONLY

Billing Group:	Phase: SCR	PROJECT NAME Woodland
MR Project # 4923.18.01		SITE LOCATION Woodland, PA
CLIENT Woodland Food & Fuel		SAMPLER(S) MPL, JPN

NOTES:
Received On Ice: (Y) / N
Sample Temp: 4.4°C
PWSID #:
Seal In Tack: Y / N
Other:
Comments:

MOUNTAIN RESEAR
825 25th Street, Altoona, PA 16601 (814) 949
110 McCracken Run Road, Dubois, PA 15801 (814) 371

CHAIN OF CUSTODY RECORD

MR PROJ. MGR. JTH

Shipping Carrier:

Turn Around Time:
10 Day
3 Day X
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	Analyses Requested: 8260B							Preserve	LAB NUMBER
MW-1BR	11/27/18	1520	X		AQ	2 40 mL VOA	2A	X							HCl	-01
MW-3BR		1208														-02
MW-4BR		1005														-03
MW-5BR		1055														-04
MW-7		1230														-05
MW-8		1350														-06
MW-9		1135														-07
MW-3		1450														-08

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #:	Log In Time:
Mason Luster	11/27/18	1725				8110695	0844
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Staff: JMC
				11/28/18	0815		Date: 11/28/18

Page 11 of 12

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

H:\H\HYDRO\Field Forms\C-O-C\Blank COC_v1_04_08

MOUNTAIN RESEARCH SAMPLE RECEIPT PROTOCOL

WORK ORDER: 8110695

CLIENT: Woodland Food & Fuel

DATE SAMPLED: 11/27/18 DATE RECEIVED: 11/28/18 TIME RECEIVED: 0815

1. CHECK ALL THAT APPLY: PA ☑ WV ☐ MD ☐ P W S ☐ NPDES/COMPLIANCE ☐ DAIRY ☐ RUSH ☑

2. WERE ANY OF THE SAMPLE CONTAINERS DAMAGED/LEAKING? (ARE CUSTODY SEALS BROKEN?) YES ☐ NO ☐

IF YES, EXPLAIN: _____

3. NUMBER OF CONTAINERS RECEIVED: 16

4. WERE THE SAMPLES RECEIVED ON ICE/OTHER ACCEPTABLE REFRIGERANT? YES ☑ NO ☐

IF NO, EXPLAIN: _____

5. RECEIVING TEMP: 4.4 °C TEMP CONTROL(S) PRESENT YES ☐ NO ☐ BOTTLE(S) TEMPED: 1

6. WERE THE SAMPLES PROPERLY PRESERVED? YES ☑ NO ☐

IF NO, EXPLAIN: _____

7. WERE THE SAMPLES COLLECTED IN THE CORRECT CONTAINERS? YES ☑ NO ☐

IF NO, EXPLAIN: _____

8. IS THERE HEADSPACE PRESENT FOR VOLATILES/ODOR SAMPLES? YES ☐ NO ☑ N/A ☐

9. WAS THE COC FILLED OUT PROPERLY? YES ☑ NO ☐

IF NO, EXPLAIN: _____

10. DID THE SAMPLE LABEL(S) CONTAIN ADEQUATE INFO? (CLIENT/DATE/TIME/PRESERVATIVE) YES ☑ NO ☐

IF NO, EXPLAIN: _____

11. WERE ANY OF THE SAMPLES RECEIVED OUTSIDE OF HOLDING TIME? YES ☐ NO ☑

IF YES, EXPLAIN: _____

12. DO THE SAMPLES REQUIRE ANALYSES THAT HAVE A SHORT HOLDING TIME? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____ **PLEASE NOTIFY LABORATORY ANALYSTS!**

13. IS SUBCONTRACTING REQUIRED? YES ☐ NO ☑

IF YES, WHAT ANALYSES? _____

14. WAS THE CLIENT CONTACTED? YES ☐ NO ☑ IF YES, FILL OUT THE FOLLOWING:

MR EMPLOYEE INITIALS: CLIENT SPOKEN TO: DATE/TIME:

OUTCOME:

SIGNATURE: [signature]

L60.30.A r2 Sample Receipt Form

For MR Use Only

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EPA Lab# PA00155

11 December 2018

Woodland Food & Fuel, Inc.
Dave Panasiti
2829 Woodland Bigler Highway
Woodland PA, 16881

Work Order: 8120180
Project: Woodland, PA

ANALYTICAL REPORT

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received
Trip Blank	8120180-01	Aqueous	12/06/18 04:30	12/07/18 09:00
MW-1	8120180-02	Aqueous	12/06/18 14:28	12/07/18 09:00
MW-2	8120180-03	Aqueous	12/06/18 14:15	12/07/18 09:00
MW-4	8120180-04	Aqueous	12/06/18 14:20	12/07/18 09:00
MW-5	8120180-05	Aqueous	12/06/18 14:05	12/07/18 09:00
MW-6	8120180-06	Aqueous	12/06/18 14:00	12/07/18 09:00

NARRATIVE

The result(s) contained in this report are respresentative of the sample(s) received. Analyses were performed in accordance with Mountain Research, LLC's applicable certifications and Quality Assurance Program, unless otherwise noted below or within the body of the report. Mountain Research, LLC is not responsible for the use or interpretation of the data included herein. If necessary, this analytical report must be reproduced in its entirety.

DEFINITIONS

CC	Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
dry	Sample results reported on a dry weight basis

APPROVED BY:

Stephen Gampe

Stephen Gampe, Assistant Laboratory Manag

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

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814.375.0823 **Fax**
EPA Lab# PA00155

Reported: 12/11/18 13:41

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: **Trip Blank**
LAB SAMPLE ID: 8120180-01
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 12/06/18 04:30
RECEIPT DATE: 12/07/18 9:00

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	<2.00	µg/L	2.00		12/07/18 20:35	12/07/18 20:35	EPA 5030B	EPA 8260 B	JMG	
1,3,5-Trimethylbenzene	<2.00	µg/L	2.00		12/07/18 20:35	12/07/18 20:35	EPA 5030B	EPA 8260 B	JMG	
Benzene	<2.00	µg/L	2.00		12/07/18 20:35	12/07/18 20:35	EPA 5030B	EPA 8260 B	JMG	
Ethylbenzene	<2.00	µg/L	2.00		12/07/18 20:35	12/07/18 20:35	EPA 5030B	EPA 8260 B	JMG	
Isopropylbenzene (Cumene)	<2.00	µg/L	2.00		12/07/18 20:35	12/07/18 20:35	EPA 5030B	EPA 8260 B	JMG	
MTBE	<2.00	µg/L	2.00		12/07/18 20:35	12/07/18 20:35	EPA 5030B	EPA 8260 B	JMG	
Naphthalene	<2.00	µg/L	2.00		12/07/18 20:35	12/07/18 20:35	EPA 5030B	EPA 8260 B	JMG	
Toluene	<2.00	µg/L	2.00		12/07/18 20:35	12/07/18 20:35	EPA 5030B	EPA 8260 B	JMG	
Xylene o	<2.00	µg/L	2.00		12/07/18 20:35	12/07/18 20:35	EPA 5030B	EPA 8260 B	JMG	
Xylene p/m	<4.00	µg/L	4.00		12/07/18 20:35	12/07/18 20:35	EPA 5030B	EPA 8260 B	JMG	
Xylenes, Total	<6.00	µg/L	6.00		12/07/18 20:35	12/07/18 20:35	EPA 5030B	EPA 8260 B	JMG	CC
Surrogate: 1,2-Dichloroethane-d4	*105 %*		*80-120*		*12/07/18 20:35*	*12/07/18 20:35*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene	*104 %*		*80-120*		*12/07/18 20:35*	*12/07/18 20:35*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane	*97.7 %*		*80-120*		*12/07/18 20:35*	*12/07/18 20:35*	*EPA 8260 B*			
Surrogate: Toluene-d8	*101 %*		*80-120*		*12/07/18 20:35*	*12/07/18 20:35*	*EPA 8260 B*			

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

MOUNTAIN RESEARCH, LLC

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814.949.2034 **Phone**
800.837.4674 **Toll Free**
814.949.9591 **Fax**
EPA Lab# PA00165

DuBois Office and Laboratory
110 McCracken Run Road
DuBois, PA 15801
814.371.6030 **Phone**
814.375.0823 **Fax**
EPA Lab# PA00155

Reported: 12/11/18 13:41

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: MW-1
LAB SAMPLE ID: 8120180-02
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 12/06/18 14:28
RECEIPT DATE: 12/07/18 9:00

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	<2.00	µg/L	2.00		12/07/18 21:01	12/07/18 21:01	EPA 5030B	EPA 8260 B	JMG	
1,3,5-Trimethylbenzene	<2.00	µg/L	2.00		12/07/18 21:01	12/07/18 21:01	EPA 5030B	EPA 8260 B	JMG	
Benzene	<2.00	µg/L	2.00		12/07/18 21:01	12/07/18 21:01	EPA 5030B	EPA 8260 B	JMG	
Ethylbenzene	<2.00	µg/L	2.00		12/07/18 21:01	12/07/18 21:01	EPA 5030B	EPA 8260 B	JMG	
Isopropylbenzene (Cumene)	<2.00	µg/L	2.00		12/07/18 21:01	12/07/18 21:01	EPA 5030B	EPA 8260 B	JMG	
MTBE	**2.71**	µg/L	2.00		12/07/18 21:01	12/07/18 21:01	EPA 5030B	EPA 8260 B	JMG	
Naphthalene	<2.00	µg/L	2.00		12/07/18 21:01	12/07/18 21:01	EPA 5030B	EPA 8260 B	JMG	
Toluene	<2.00	µg/L	2.00		12/07/18 21:01	12/07/18 21:01	EPA 5030B	EPA 8260 B	JMG	
Xylene o	<2.00	µg/L	2.00		12/07/18 21:01	12/07/18 21:01	EPA 5030B	EPA 8260 B	JMG	
Xylene p/m	<4.00	µg/L	4.00		12/07/18 21:01	12/07/18 21:01	EPA 5030B	EPA 8260 B	JMG	
Xylenes, Total	<6.00	µg/L	6.00		12/07/18 21:01	12/07/18 21:01	EPA 5030B	EPA 8260 B	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*80-120*		*12/07/18 21:01*	*12/07/18 21:01*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene		*105 %*	*80-120*		*12/07/18 21:01*	*12/07/18 21:01*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane		*103 %*	*80-120*		*12/07/18 21:01*	*12/07/18 21:01*	*EPA 8260 B*			
Surrogate: Toluene-d8		*99.7 %*	*80-120*		*12/07/18 21:01*	*12/07/18 21:01*	*EPA 8260 B*			

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

MOUNTAIN RESEARCH, LLC

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DuBois, PA 15801
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814.375.0823 **Fax**
EPA Lab# PA00155

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

Reported: 12/11/18 13:41

CLIENT SAMPLE ID: **MW-2**
LAB SAMPLE ID: 8120180-03
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 12/06/18 14:15
RECEIPT DATE: 12/07/18 9:00

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	<2.00	µg/L	2.00		12/07/18 21:27	12/07/18 21:27	EPA 5030B	EPA 8260 B	JMG	
1,3,5-Trimethylbenzene	<2.00	µg/L	2.00		12/07/18 21:27	12/07/18 21:27	EPA 5030B	EPA 8260 B	JMG	
Benzene	<2.00	µg/L	2.00		12/07/18 21:27	12/07/18 21:27	EPA 5030B	EPA 8260 B	JMG	
Ethylbenzene	<2.00	µg/L	2.00		12/07/18 21:27	12/07/18 21:27	EPA 5030B	EPA 8260 B	JMG	
Isopropylbenzene (Cumene)	<2.00	µg/L	2.00		12/07/18 21:27	12/07/18 21:27	EPA 5030B	EPA 8260 B	JMG	
MTBE	<2.00	µg/L	2.00		12/07/18 21:27	12/07/18 21:27	EPA 5030B	EPA 8260 B	JMG	
Naphthalene	<2.00	µg/L	2.00		12/07/18 21:27	12/07/18 21:27	EPA 5030B	EPA 8260 B	JMG	
Toluene	<2.00	µg/L	2.00		12/07/18 21:27	12/07/18 21:27	EPA 5030B	EPA 8260 B	JMG	
Xylene o	<2.00	µg/L	2.00		12/07/18 21:27	12/07/18 21:27	EPA 5030B	EPA 8260 B	JMG	
Xylene p/m	<4.00	µg/L	4.00		12/07/18 21:27	12/07/18 21:27	EPA 5030B	EPA 8260 B	JMG	
Xylenes, Total	<6.00	µg/L	6.00		12/07/18 21:27	12/07/18 21:27	EPA 5030B	EPA 8260 B	JMG	CC
Surrogate: 1,2-Dichloroethane-d4	*97.8 %*		*80-120*		*12/07/18 21:27*	*12/07/18 21:27*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene	*101 %*		*80-120*		*12/07/18 21:27*	*12/07/18 21:27*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane	*98.6 %*		*80-120*		*12/07/18 21:27*	*12/07/18 21:27*	*EPA 8260 B*			
Surrogate: Toluene-d8	*102 %*		*80-120*		*12/07/18 21:27*	*12/07/18 21:27*	*EPA 8260 B*			

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

MOUNTAIN RESEARCH, LLC

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EPA Lab# PA00155

Reported: 12/11/18 13:41

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: MW-4
LAB SAMPLE ID: 8120180-04
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 12/06/18 14:20
RECEIPT DATE: 12/07/18 9:00

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	**29.4**	µg/L	2.00		12/10/18 20:32	12/10/18 20:32	EPA 5030B	EPA 8260 B	JMG	
1,3,5-Trimethylbenzene	**9.18**	µg/L	2.00		12/10/18 20:32	12/10/18 20:32	EPA 5030B	EPA 8260 B	JMG	
Benzene	**11.4**	µg/L	2.00		12/10/18 20:32	12/10/18 20:32	EPA 5030B	EPA 8260 B	JMG	
Ethylbenzene	**21.3**	µg/L	2.00		12/10/18 20:32	12/10/18 20:32	EPA 5030B	EPA 8260 B	JMG	
Isopropylbenzene (Cumene)	**3.02**	µg/L	2.00		12/10/18 20:32	12/10/18 20:32	EPA 5030B	EPA 8260 B	JMG	
MTBE	**55.1**	µg/L	2.00		12/10/18 20:32	12/10/18 20:32	EPA 5030B	EPA 8260 B	JMG	
Naphthalene	<2.00	µg/L	2.00		12/10/18 20:32	12/10/18 20:32	EPA 5030B	EPA 8260 B	JMG	
Toluene	**6.86**	µg/L	2.00		12/10/18 20:32	12/10/18 20:32	EPA 5030B	EPA 8260 B	JMG	
Xylene o	**33.6**	µg/L	2.00		12/10/18 20:32	12/10/18 20:32	EPA 5030B	EPA 8260 B	JMG	
Xylene p/m	**100**	µg/L	4.00		12/10/18 20:32	12/10/18 20:32	EPA 5030B	EPA 8260 B	JMG	
Xylenes, Total	**134**	µg/L	6.00		12/10/18 20:32	12/10/18 20:32	EPA 5030B	EPA 8260 B	JMG	CC
Surrogate: 1,2-Dichloroethane-d4	*94.6 %*		*80-120*		*12/10/18 20:32*	*12/10/18 20:32*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene	*103 %*		*80-120*		*12/10/18 20:32*	*12/10/18 20:32*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane	*106 %*		*80-120*		*12/10/18 20:32*	*12/10/18 20:32*	*EPA 8260 B*			
Surrogate: Toluene-d8	*101 %*		*80-120*		*12/10/18 20:32*	*12/10/18 20:32*	*EPA 8260 B*			

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

MOUNTAIN RESEARCH, LLC

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814.375.0823 **Fax**
EPA Lab# PA00155

Reported: 12/11/18 13:41

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: MW-5
LAB SAMPLE ID: 8120180-05
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 12/06/18 14:05
RECEIPT DATE: 12/07/18 9:00

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	<2.00	µg/L	2.00		12/07/18 22:20	12/07/18 22:20	EPA 5030B	EPA 8260 B	JMG	
1,3,5-Trimethylbenzene	<2.00	µg/L	2.00		12/07/18 22:20	12/07/18 22:20	EPA 5030B	EPA 8260 B	JMG	
Benzene	<2.00	µg/L	2.00		12/07/18 22:20	12/07/18 22:20	EPA 5030B	EPA 8260 B	JMG	
Ethylbenzene	<2.00	µg/L	2.00		12/07/18 22:20	12/07/18 22:20	EPA 5030B	EPA 8260 B	JMG	
Isopropylbenzene (Cumene)	<2.00	µg/L	2.00		12/07/18 22:20	12/07/18 22:20	EPA 5030B	EPA 8260 B	JMG	
MTBE	<2.00	µg/L	2.00		12/07/18 22:20	12/07/18 22:20	EPA 5030B	EPA 8260 B	JMG	
Naphthalene	<2.00	µg/L	2.00		12/07/18 22:20	12/07/18 22:20	EPA 5030B	EPA 8260 B	JMG	
Toluene	<2.00	µg/L	2.00		12/07/18 22:20	12/07/18 22:20	EPA 5030B	EPA 8260 B	JMG	
Xylene o	<2.00	µg/L	2.00		12/07/18 22:20	12/07/18 22:20	EPA 5030B	EPA 8260 B	JMG	
Xylene p/m	<4.00	µg/L	4.00		12/07/18 22:20	12/07/18 22:20	EPA 5030B	EPA 8260 B	JMG	
Xylenes, Total	<6.00	µg/L	6.00		12/07/18 22:20	12/07/18 22:20	EPA 5030B	EPA 8260 B	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*106 %*	*80-120*		*12/07/18 22:20*	*12/07/18 22:20*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene		*108 %*	*80-120*		*12/07/18 22:20*	*12/07/18 22:20*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane		*104 %*	*80-120*		*12/07/18 22:20*	*12/07/18 22:20*	*EPA 8260 B*			
Surrogate: Toluene-d8		*101 %*	*80-120*		*12/07/18 22:20*	*12/07/18 22:20*	*EPA 8260 B*			

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

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DuBois, PA 15801
814.371.6030 **Phone**
814.375.0823 **Fax**
EPA Lab# PA00155

Reported: 12/11/18 13:41

Woodland Food & Fuel, Inc.
2829 Woodland Bigler Highway
Woodland PA, 16881

CLIENT SAMPLE ID: MW-6
LAB SAMPLE ID: 8120180-06
MATRIX: Aqueous
SAMPLE TYPE: Grab

SAMPLE DATE: 12/06/18 14:00
RECEIPT DATE: 12/07/18 9:00

Analyte	Result	Units	PQL	MDL	Prepared	Analyzed	Prep Method	Method	Analyst	Notes
VOLATILE ORGANIC COMPOUNDS BY GC/MS										
1,2,4-Trimethylbenzene	<2.00	µg/L	2.00		12/07/18 22:46	12/07/18 22:46	EPA 5030B	EPA 8260 B	JMG	
1,3,5-Trimethylbenzene	<2.00	µg/L	2.00		12/07/18 22:46	12/07/18 22:46	EPA 5030B	EPA 8260 B	JMG	
Benzene	<2.00	µg/L	2.00		12/07/18 22:46	12/07/18 22:46	EPA 5030B	EPA 8260 B	JMG	
Ethylbenzene	<2.00	µg/L	2.00		12/07/18 22:46	12/07/18 22:46	EPA 5030B	EPA 8260 B	JMG	
Isopropylbenzene (Cumene)	<2.00	µg/L	2.00		12/07/18 22:46	12/07/18 22:46	EPA 5030B	EPA 8260 B	JMG	
MTBE	<2.00	µg/L	2.00		12/07/18 22:46	12/07/18 22:46	EPA 5030B	EPA 8260 B	JMG	
Naphthalene	<2.00	µg/L	2.00		12/07/18 22:46	12/07/18 22:46	EPA 5030B	EPA 8260 B	JMG	
Toluene	<2.00	µg/L	2.00		12/07/18 22:46	12/07/18 22:46	EPA 5030B	EPA 8260 B	JMG	
Xylene o	<2.00	µg/L	2.00		12/07/18 22:46	12/07/18 22:46	EPA 5030B	EPA 8260 B	JMG	
Xylene p/m	<4.00	µg/L	4.00		12/07/18 22:46	12/07/18 22:46	EPA 5030B	EPA 8260 B	JMG	
Xylenes, Total	<6.00	µg/L	6.00		12/07/18 22:46	12/07/18 22:46	EPA 5030B	EPA 8260 B	JMG	CC
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*80-120*		*12/07/18 22:46*	*12/07/18 22:46*	*EPA 8260 B*			
Surrogate: 4-Bromofluorobenzene		*102 %*	*80-120*		*12/07/18 22:46*	*12/07/18 22:46*	*EPA 8260 B*			
Surrogate: Dibromofluoromethane		*104 %*	*80-120*		*12/07/18 22:46*	*12/07/18 22:46*	*EPA 8260 B*			
Surrogate: Toluene-d8		*103 %*	*80-120*		*12/07/18 22:46*	*12/07/18 22:46*	*EPA 8260 B*			

CERTIFICATIONS

Altoona PA Lab ID: 07-00418 - Dubois PA Lab ID: 33-00258 - Maryland Certificate #: 257 - WV Lab ID #: 225

BALL POINT PEN ONLY

Billing Group:	Phase:	PROJECT NAME: GW ~~SW~~ Sampling
MR Project #: 4923-18-01		SITE LOCATION: Woodland, PA
CLIENT: Woodland Food$ Fuel		SAMPLER(S): JK

MOUNTAIN RESEARCH LLC
825 25th Street, Altoona, PA 16601 (814) 949-2034 (800)
110 McCracken Run Road, Dubois, PA 15801 (814) 371-6030 Fax (8

CHAIN OF CUSTODY RECORD

NOTES:
Received On Ice: (Y) / N 2.8°C
Sample Temp: _____
PWSID #: _____
Seal In Tack: Y / N
Other: _____
Comments: _____

MR PROJ. MGR. JK

Shipping Carrier: _____

Turn Around Time:
10 Day _____
3 Day _____
1 Day _____
48 hour X
Comments:

Analyses Requested: 8260B

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	Preserve	LAB NUMBER
Trip Blank	12/6/18	0430	X		AQ	2 40 ml VOA	2A	X	HCl	01
MW-1		1428								02
MW-2		1415								03
MW-4		1420								04
MW-5		1405								05
MW-6		1400								06

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #:	Log In Time:
Taylor Rydbom	12/7/18	9:00	[signature]	12/7/18	9:00	8120180	0940
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Staff: RC
							Date: 12/7/18

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

H:\H\HYDRO\Field Forms\C-O-C\Blank COC_v1_04_08

MOUNTAIN RESEARCH SAMPLE RECEIPT PROTOCOL

WORK ORDER: 8120 180

CLIENT: Woodland Food & Fuel

DATE SAMPLED: 12/6/18 DATE RECEIVED: 12/7/18 TIME RECEIVED:

1. CHECK ALL THAT APPLY: PA ☑ WV ☐ MD ☐ P W S ☐ NPDES/COMPLIANCE ☐ DAIRY ☐ RUSH ☑

2. WERE ANY OF THE SAMPLE CONTAINERS DAMAGED/LEAKING? (ARE CUSTODY SEALS BROKEN?) YES ☐ NO ☑

IF YES, EXPLAIN:

3. NUMBER OF CONTAINERS RECEIVED: 12

4. WERE THE SAMPLES RECEIVED ON ICE/OTHER ACCEPTABLE REFRIGERANT? YES ☑ NO ☐

IF NO, EXPLAIN:

5. RECEIVING TEMP: 2.8 °C TEMP CONTROL(S) PRESENT YES ☐ NO ☑ BOTTLE(S) TEMPED: /

6. WERE THE SAMPLES PROPERLY PRESERVED? YES ☑ NO ☐

IF NO, EXPLAIN:

7. WERE THE SAMPLES COLLECTED IN THE CORRECT CONTAINERS? YES ☑ NO ☐

IF NO, EXPLAIN:

8. IS THERE HEADSPACE PRESENT FOR VOLATILES/ODOR SAMPLES? YES ☐ NO ☑ N/A ☐

9. WAS THE COC FILLED OUT PROPERLY? YES ☑ NO ☐

IF NO, EXPLAIN:

10. DID THE SAMPLE LABEL(S) CONTAIN ADEQUATE INFO? (CLIENT/DATE/TIME/PRESERVATIVE) YES ☑ NO ☐

IF NO, EXPLAIN:

11. WERE ANY OF THE SAMPLES RECEIVED OUTSIDE OF HOLDING TIME? YES ☐ NO ☑

IF YES, EXPLAIN:

12. DO THE SAMPLES REQUIRE ANALYSES THAT HAVE A SHORT HOLDING TIME? YES ☐ NO ☑

IF YES, WHAT ANALYSES? PLEASE NOTIFY LABORATORY ANALYSTS!

13. IS SUBCONTRACTING REQUIRED? YES ☐ NO ☑

IF YES, WHAT ANALYSES?

14. WAS THE CLIENT CONTACTED? YES ☐ NO ☑ IF YES, FILL OUT THE FOLLOWING:

MR EMPLOYEE INITIALS: CLIENT SPOKEN TO: DATE/TIME:

OUTCOME:

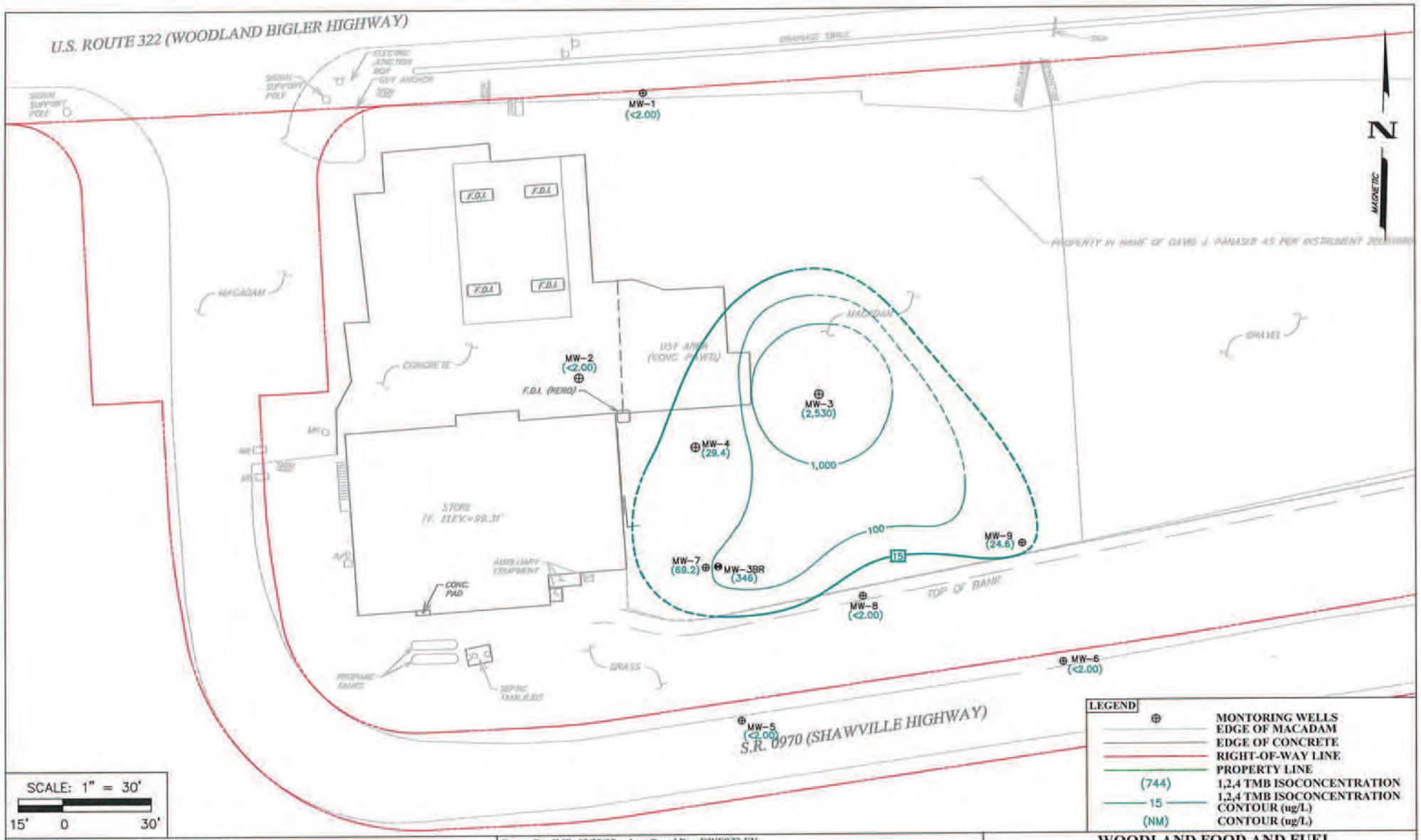
SIGNATURE:

L60.30.A r2 Sample Receipt Form

For MR Use Only

APPENDIX Q

ISOCONCENTRATION MAPS – GROUNDWATER



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The Summit of Science & Service
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Fax (814) 949-9591

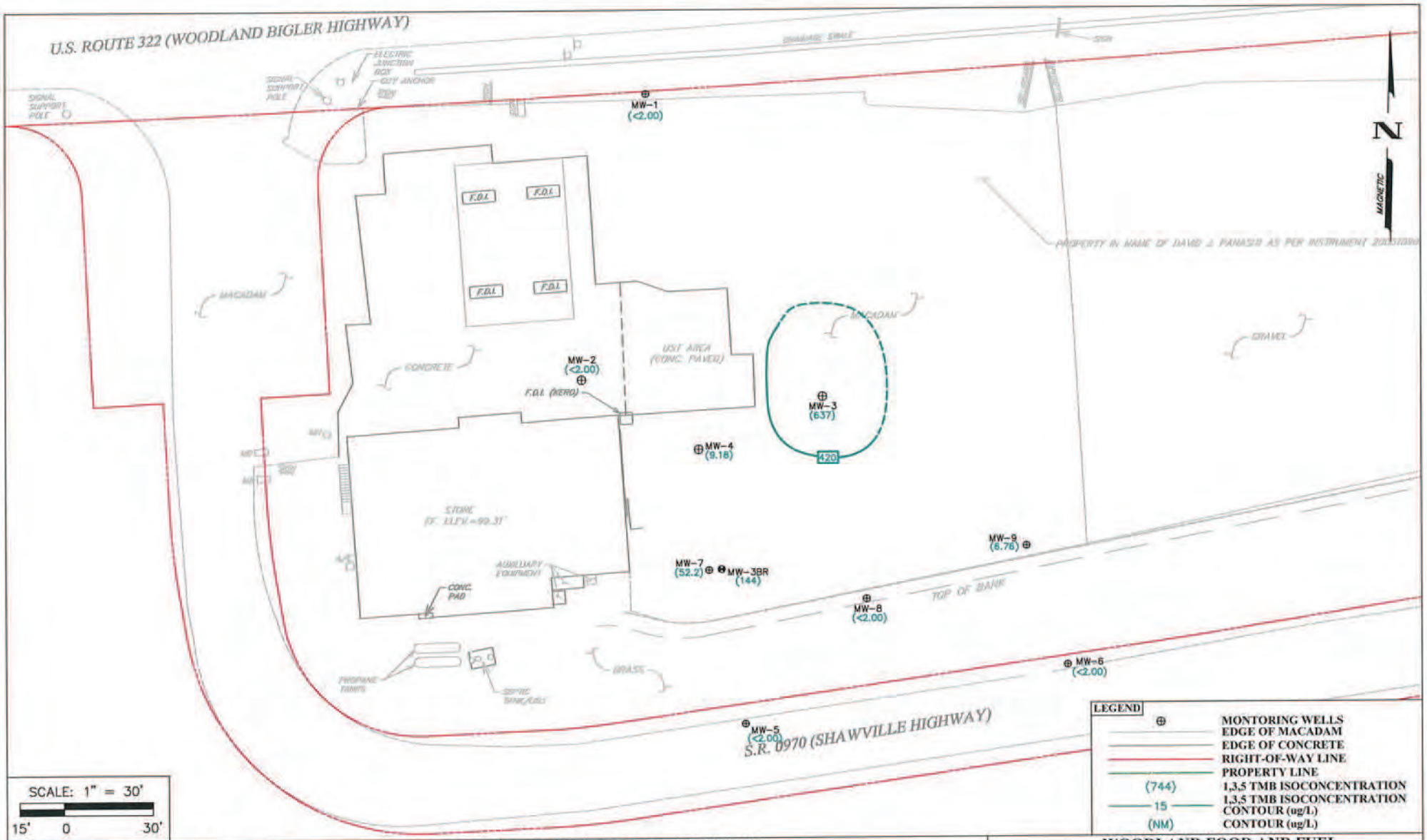
Drawn By: JMB 12/20/18 Last Saved By: DWESTLEY
4923.18.01
Submitted By: JH
Project Manager: JH
Checked By: JH

H:\W\WOODLAND FOOD & FUEL, INC\4923.18.01 - WOODLAND, PA\AUTO CAD\SITE CHARACTERIZATION\DECEMBER 2018\SHALLOW 124 TMB (11-27-18).DWG

WOODLAND FOOD AND FUEL

2829 Woodland Bigler Highway
Woodland, PA 16881, Clearfield County

SHALLOW AQUIFER 1,2,4 TRIMETHYLBENZENE
November 27 & December 6, 2018



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4923.18.01
Submitted By: JH
Project Manager: JH
Checked By: JH

H:\W\WOODLAND FOOD & FUEL, INC\4923.18.01 - WOODLAND, PA\AUTO CAD\SITE CHARACTERIZATION\DECEMBER 2018\SHALLOW 135 TMB (11-27-18).DWG

WOODLAND FOOD AND FUEL

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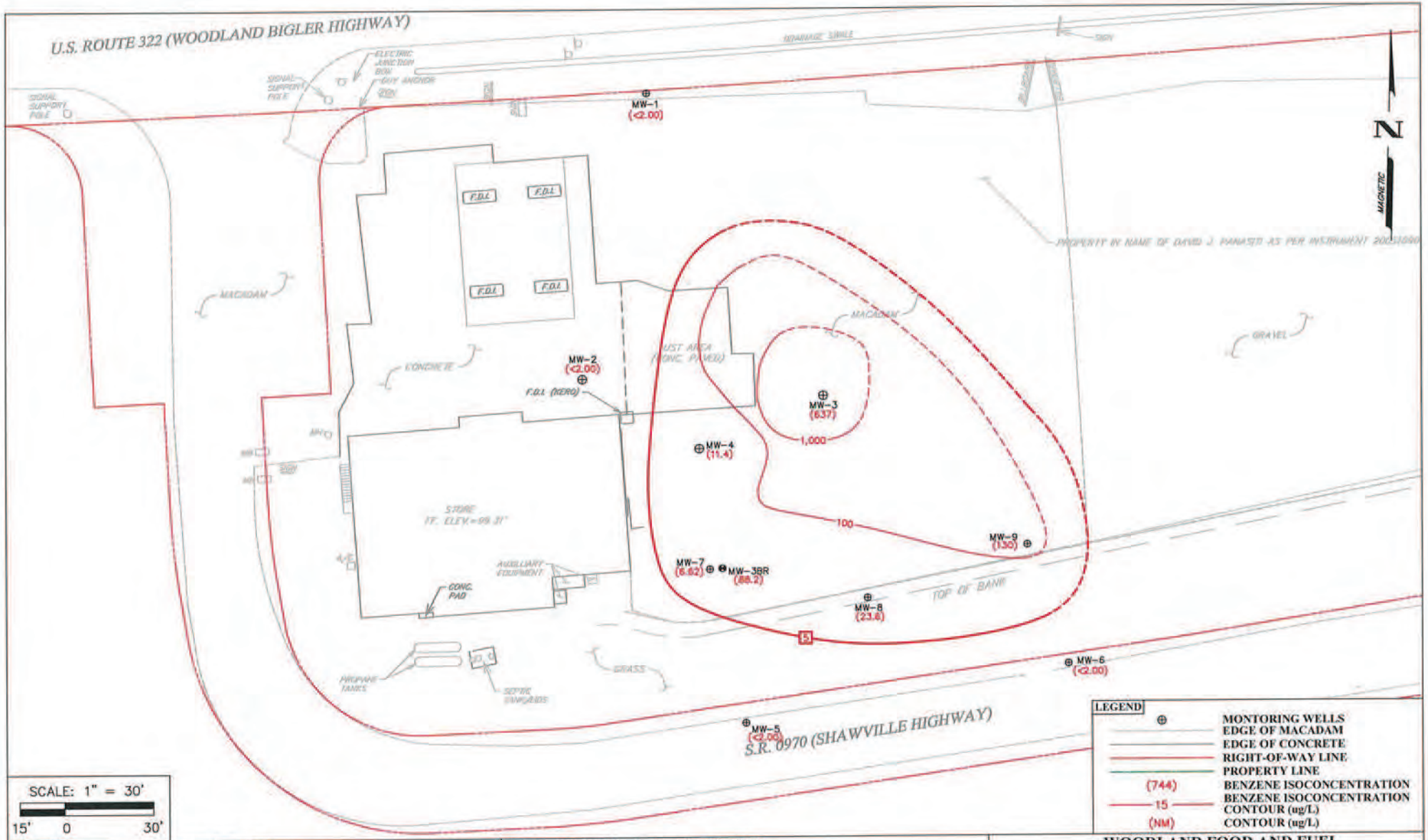
Woodland, PA 16881, Clearfield County

SHALLOW AQUIFER 1,3,5 TRIMETHYLBENZENE
November 27 & December 6, 2018



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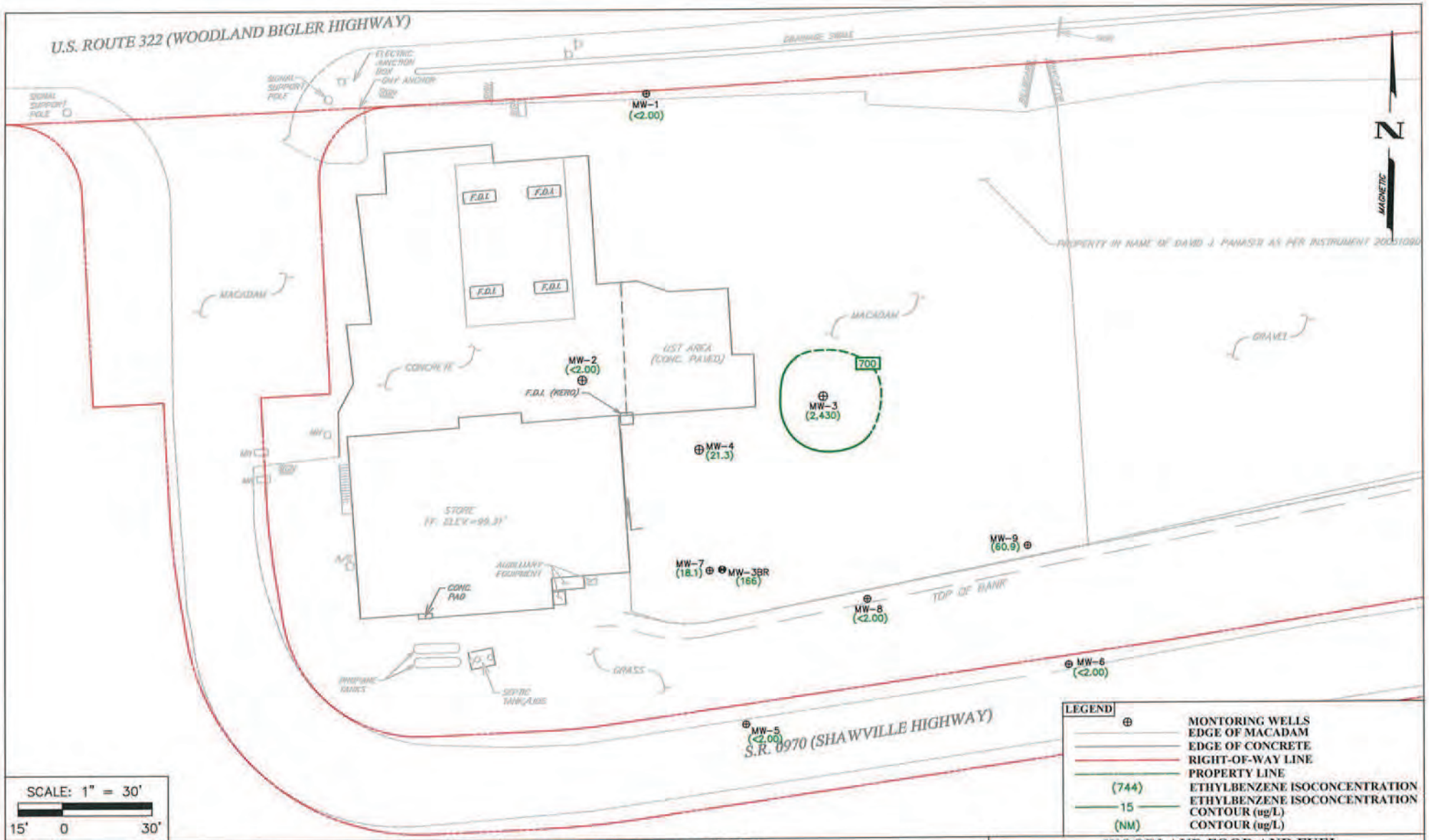
SHALLOW AQUIFER BENZENE
November 27 & December 6, 2018



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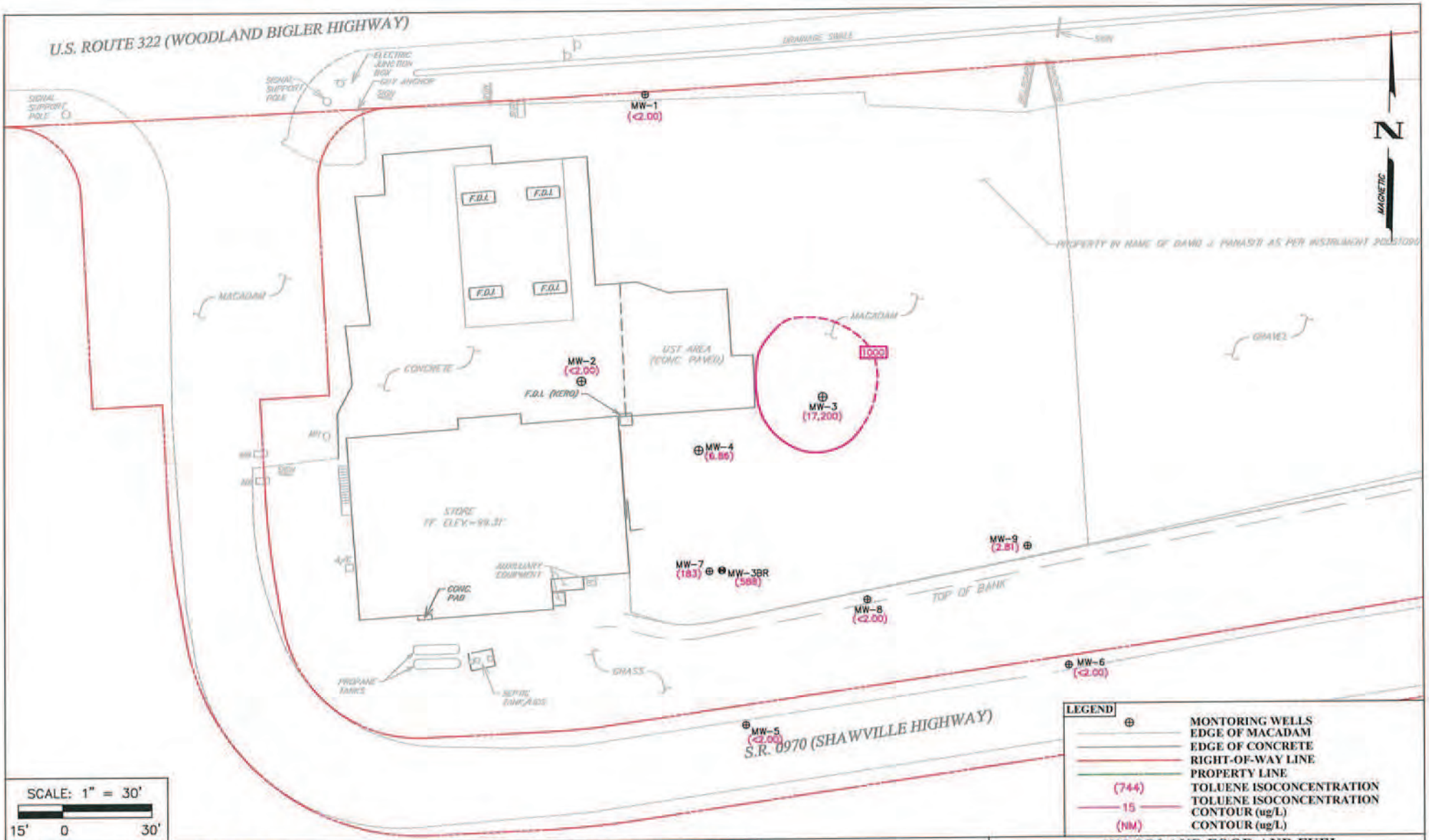
SHALLOW AQUIFER ETHYLBENZENE
November 27 & December 6, 2018



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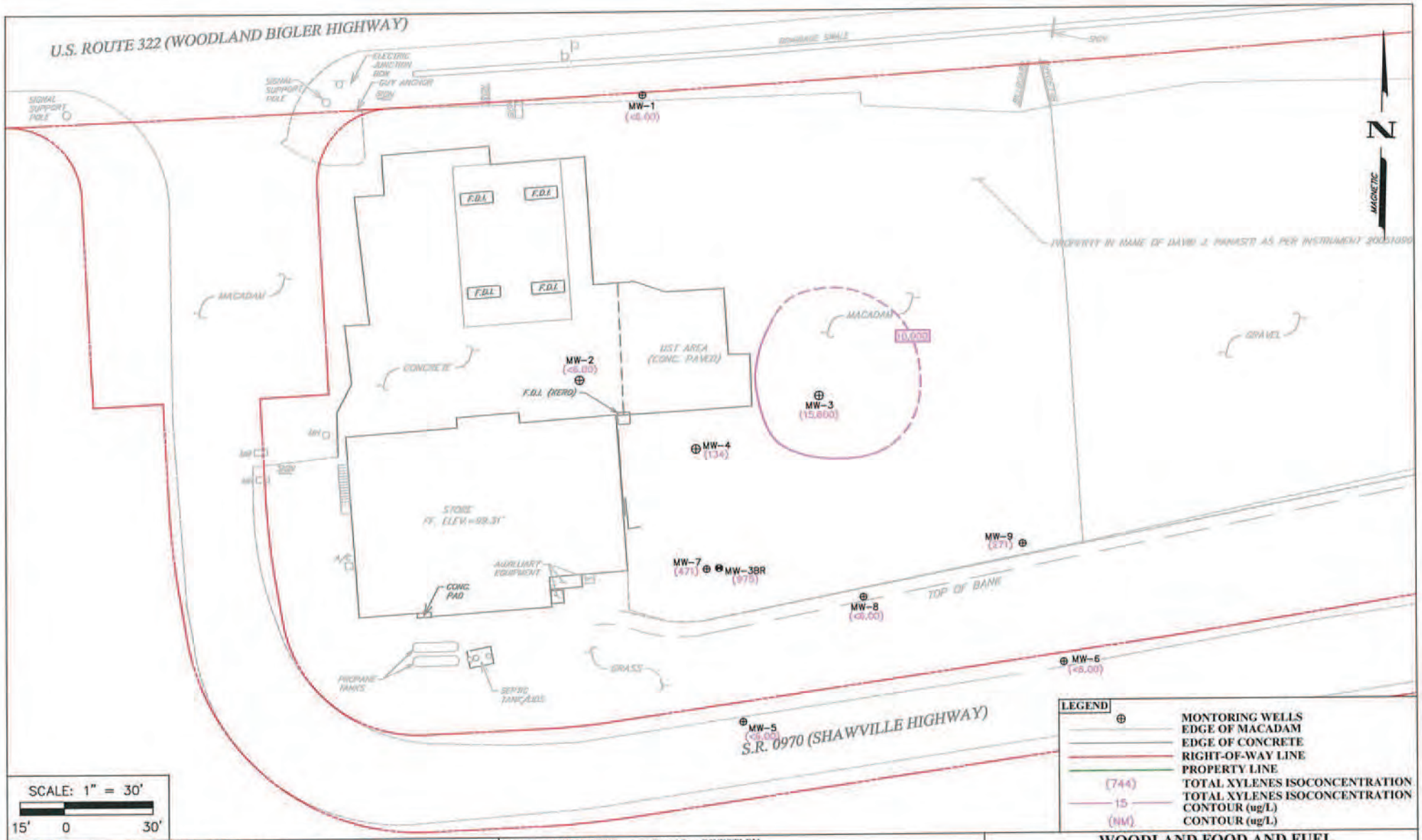
SHALLOW AQUIFER TOLUENE
November 27 & December 6, 2018



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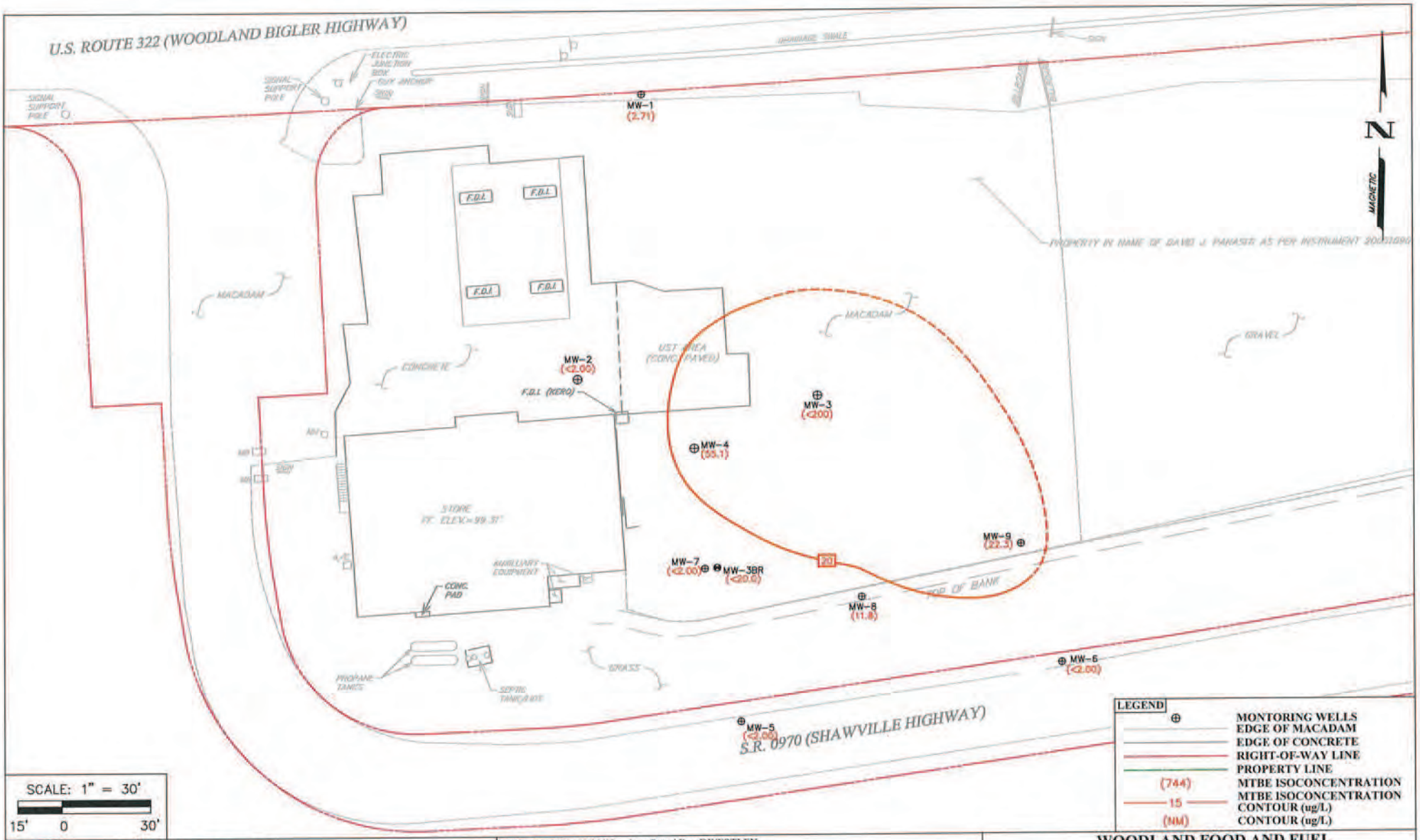
SHALLOW AQUIFER TOTAL XYLENES

November 27 & December 6, 2018



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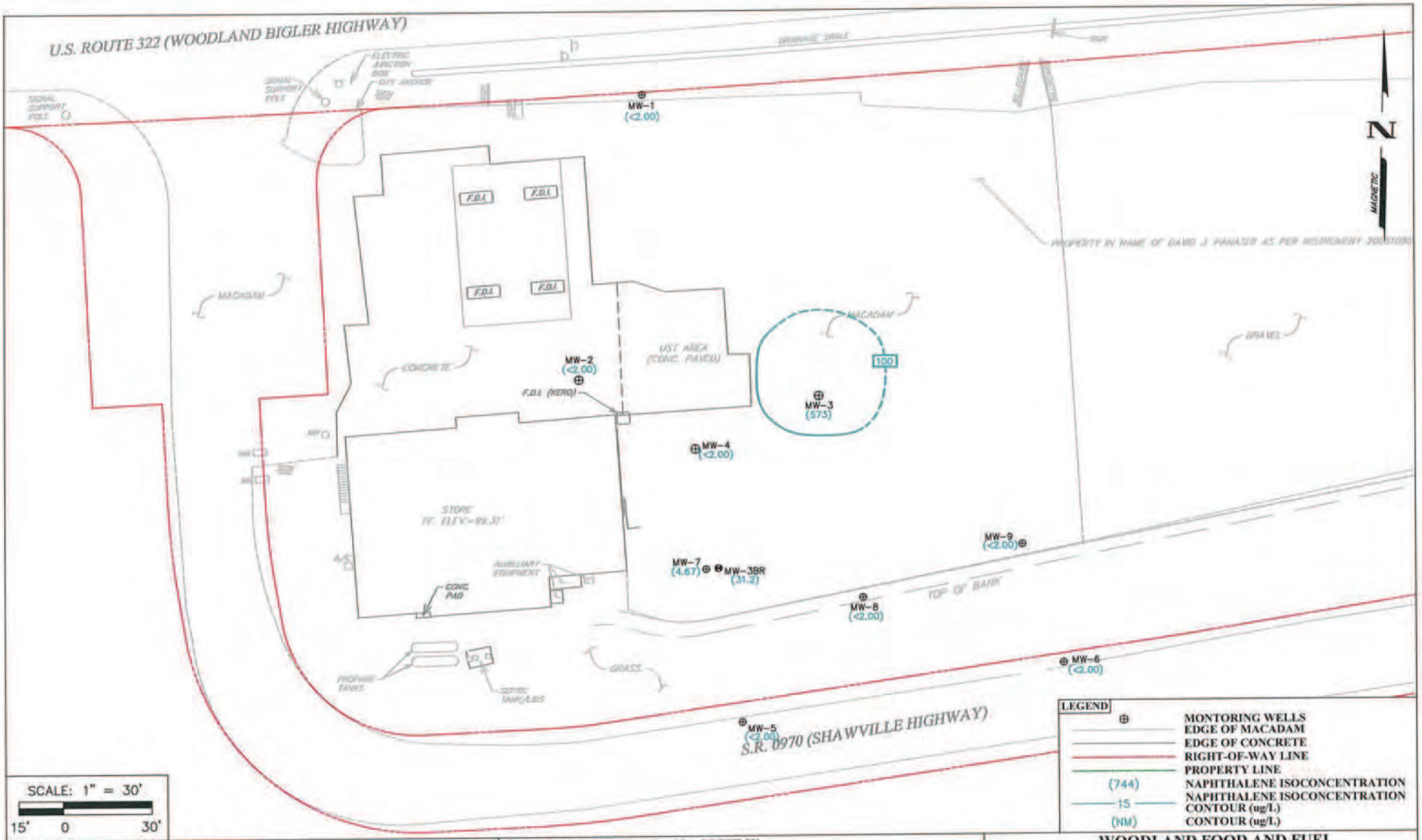
SHALLOW AQUIFER MTBE
November 27 & December 6, 2018



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H:\W\WOODLAND FOOD & FUEL, INC\4923.18.01 - WOODLAND, PA\AUTO CAD\SITE CHARACTERIZATION\DECEMBER 2018\SHALLOW NAPHTHALENE (11-27-18).DWG

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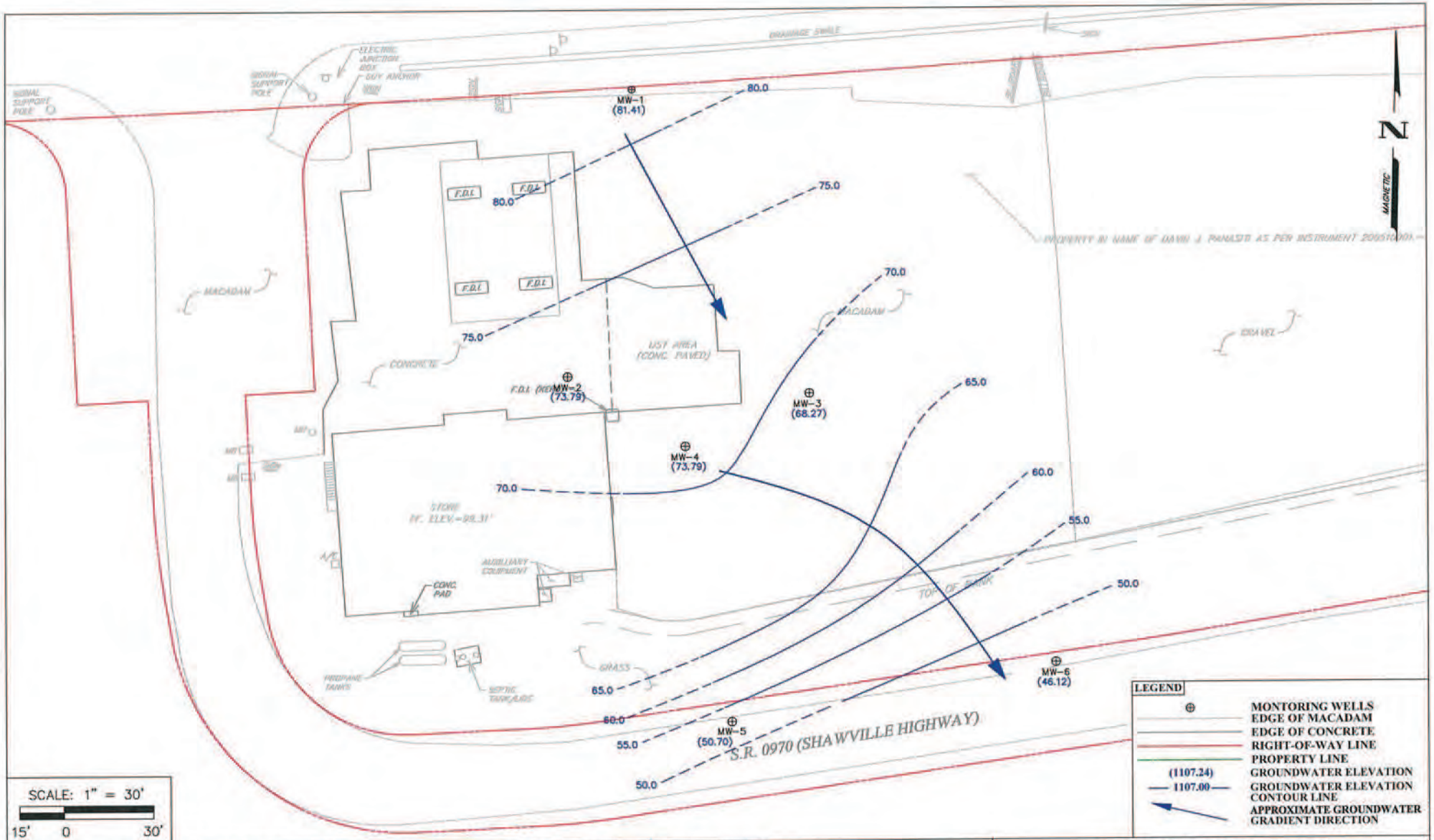
SHALLOW AQUIFER NAPHTHALENE
November 27 & December 6, 2018



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Checked By: JH

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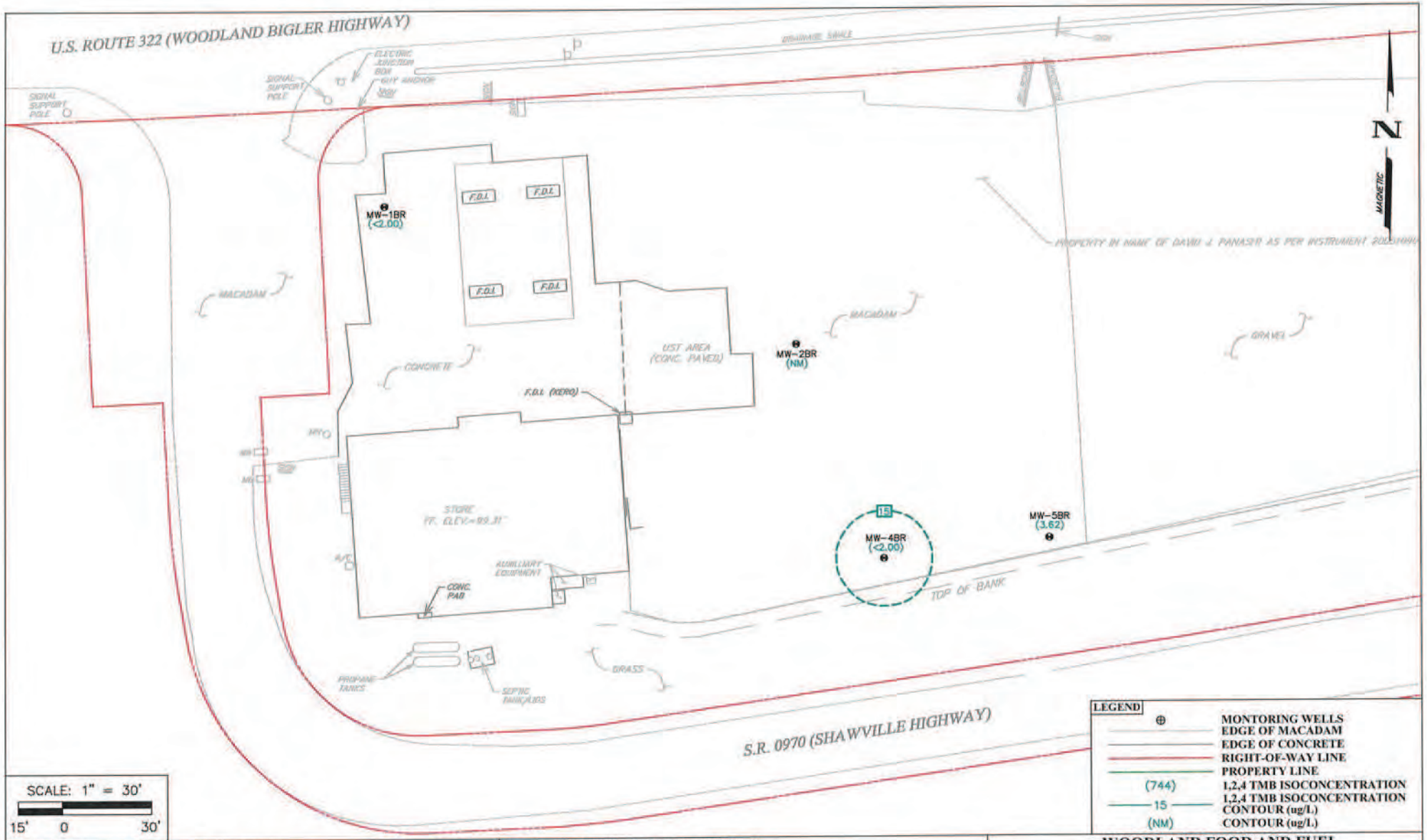
SHALLOW AQUIFER GROUNDWATER ELEVATION CONTOUR MAP
September 10, 2018
Figure 12



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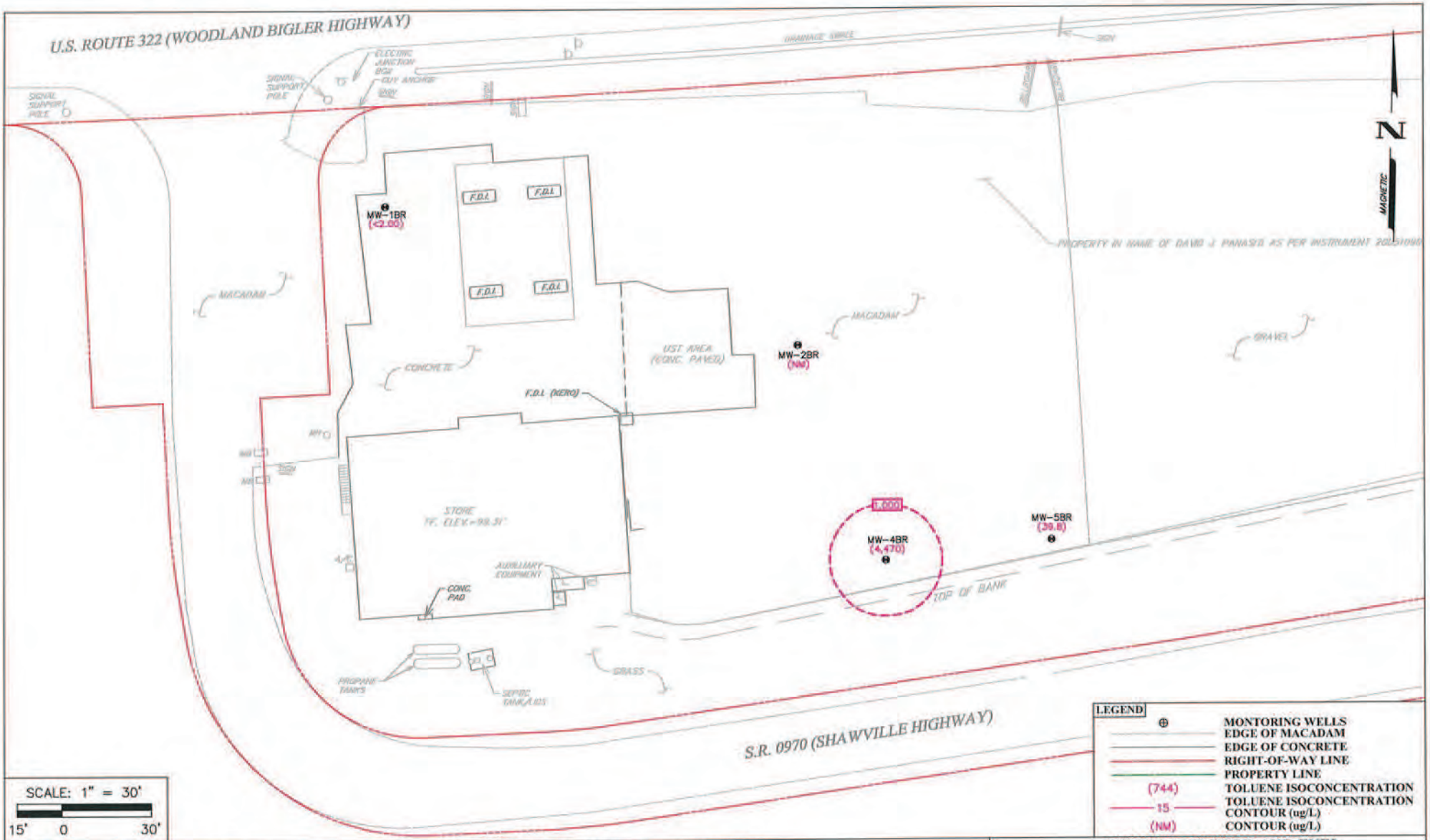
DEEP AQUIFER 1,2,4 TRIMETHYLBENZENE

November 27, 2018



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WOODLAND FOOD AND FUEL

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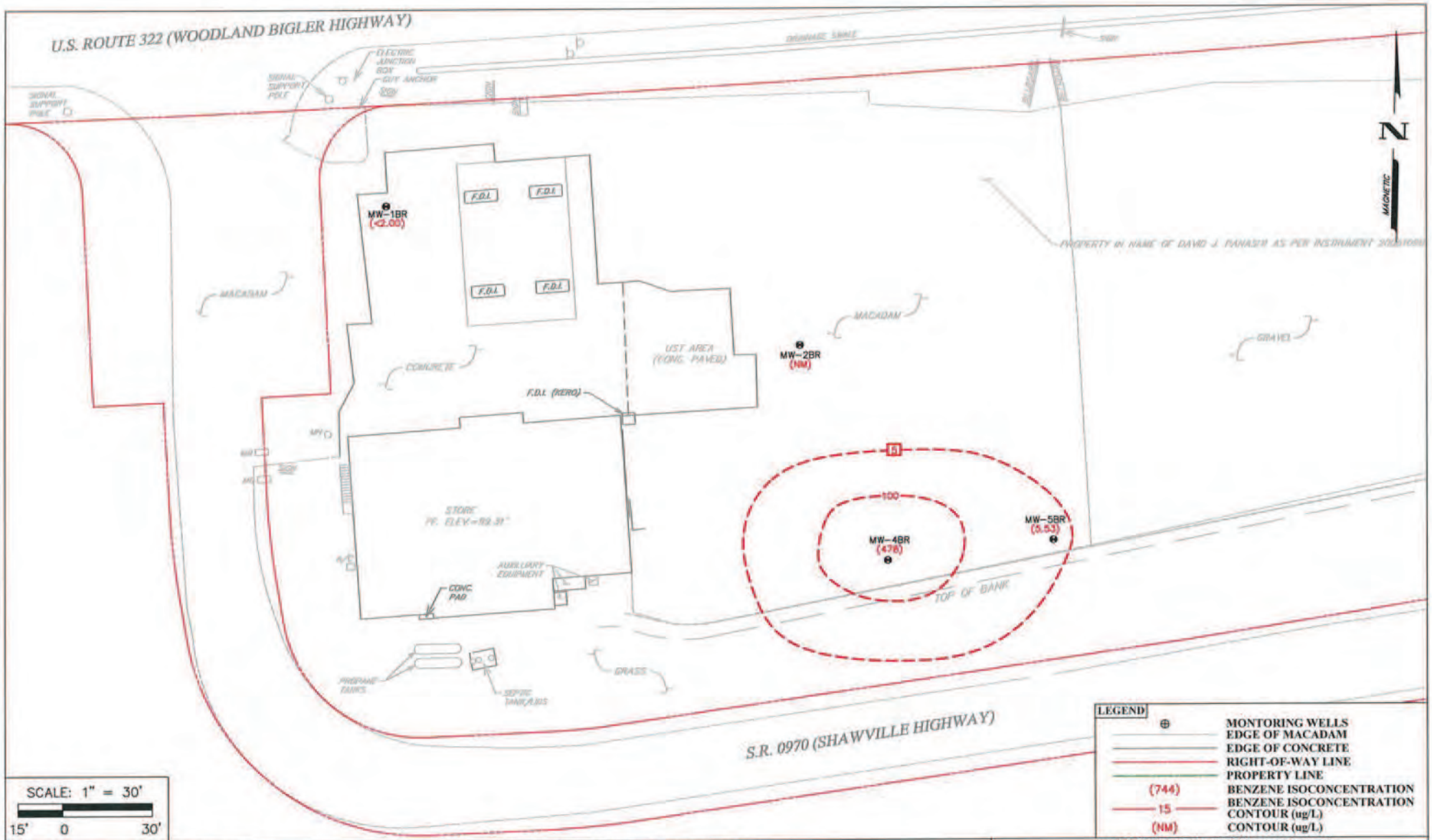
DEEP AQUIFER TOLUENE
November 27, 2018



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DEEP AQUIFER BENZENE
November 27, 2018

APPENDIX R

LABORATORY ANALYTICAL REPORT – SOIL VAPOR

con-test®
ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

December 17, 2018

Jason Haney
Mountain Research, LLC
825 25th Street
Altoona, PA 16601

Project Location: Woodland, PA
Client Job Number:
Project Number: 4923.18.01
Laboratory Work Order Number: 18L0604

Enclosed are results of analyses for samples received by the laboratory on December 13, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy
Project Manager

Table of Contents

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Mountain Research, LLC
825 25th Street
Altoona, PA 16601
ATTN: Jason Hancy

REPORT DATE: 12/17/2018

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 4923.18.01

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 18L0604

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Woodland, PA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SSVP-1	18L0604-01	Soil Gas		EPA TO-15	
SSVP-1 Duplicate	18L0604-02	Soil Gas		EPA TO-15	
Vapor Mitigation	18L0604-03	Soil Gas		EPA TO-15	

con-test®
ANALYTICAL LABORATORY

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

EPA TO-15

Qualifications:

RL-12

Elevated reporting limit due to matrix interference.

Analyte & Samples(s) Qualified:

18L0604-01[SSVP-1], 18L0604-02[SSVP-1 Duplicate]

V-20

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

Naphthalene
S030348-CCV1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod Kopyscinski

Tod E. Kopyscinski
Laboratory Director

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Woodland, PA
Date Received: 12/13/2018
Field Sample #: SSVP-1
Sample ID: 18L0604-01
Sample Matrix: Soil Gas
Sampled: 12/11/2018 16:13

Sample Description/Location:
Sub Description/Location:
Canister ID: 1732
Canister Size: 6 liter
Flow Controller ID: 4190
Sample Type: 30 min

Work Order: 18L0604
Initial Vacuum(in Hg): -27
Final Vacuum(in Hg): -5
Receipt Vacuum(in Hg): -6.2
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Sample Flags: RL-12

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Benzene	ND	0.50		ND	1.6	10	12/14/18 6:59	BRF
Ethylbenzene	ND	0.50		ND	2.2	10	12/14/18 6:59	BRF
Isopropylbenzene (Cumene)	ND	1.3		ND	6.2	10	12/14/18 6:59	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.50		ND	1.8	10	12/14/18 6:59	BRF
Naphthalene	ND	0.50		ND	2.6	10	12/14/18 6:59	BRF
Toluene	ND	0.50		ND	1.9	10	12/14/18 6:59	BRF
1,2,4-Trimethylbenzene	ND	0.50		ND	2.5	10	12/14/18 6:59	BRF
1,3,5-Trimethylbenzene	ND	0.50		ND	2.5	10	12/14/18 6:59	BRF
m&p-Xylene	ND	1.0		ND	4.3	10	12/14/18 6:59	BRF
o-Xylene	ND	0.50		ND	2.2	10	12/14/18 6:59	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	102	70-130	12/14/18 6:59
4-Bromofluorobenzene (2)	113	70-130	12/14/18 6:59

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ANALYTICAL RESULTS

Project Location: Woodland, PA
Date Received: 12/13/2018
Field Sample #: SSVP-1 Duplicate
Sample ID: 18L0604-02
Sample Matrix: Soil Gas
Sampled: 12/11/2018 16:18

Sample Description/Location:
Sub Description/Location:
Canister ID: 1456
Canister Size: 6 liter
Flow Controller ID: 4181
Sample Type: 30 min

Work Order: 18L0604
Initial Vacuum(in Hg): -28
Final Vacuum(in Hg): -5
Receipt Vacuum(in Hg): -6.3
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Sample Flags: RL-12

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Benzene	ND	0.50		ND	1.6	10	12/14/18 7:48	BRF
Ethylbenzene	ND	0.50		ND	2.2	10	12/14/18 7:48	BRF
Isopropylbenzene (Cumene)	ND	1.3		ND	6.2	10	12/14/18 7:48	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.50		ND	1.8	10	12/14/18 7:48	BRF
Naphthalene	ND	0.50		ND	2.6	10	12/14/18 7:48	BRF
Toluene	ND	0.50		ND	1.9	10	12/14/18 7:48	BRF
1,2,4-Trimethylbenzene	ND	0.50		ND	2.5	10	12/14/18 7:48	BRF
1,3,5-Trimethylbenzene	ND	0.50		ND	2.5	10	12/14/18 7:48	BRF
m&p-Xylene	ND	1.0		ND	4.3	10	12/14/18 7:48	BRF
o-Xylene	ND	0.50		ND	2.2	10	12/14/18 7:48	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	103	70-130	12/14/18 7:48
4-Bromofluorobenzene (2)	116	70-130	12/14/18 7:48

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Woodland, PA
Date Received: 12/13/2018
Field Sample #: Vapor Mitigation
Sample ID: 18L0604-03
Sample Matrix: Soil Gas
Sampled: 12/11/2018 16:19

Sample Description/Location:
Sub Description/Location:
Canister ID: 1615
Canister Size: 6 liter
Flow Controller ID: 4180
Sample Type: 30 min

Work Order: 18L0604
Initial Vacuum(in Hg): -26
Final Vacuum(in Hg): -5
Receipt Vacuum(in Hg): -6.6
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Benzene	7.4	0.10		23	0.32	2	12/14/18 8:30	BRF
Ethylbenzene	0.16	0.10		0.71	0.43	2	12/14/18 8:30	BRF
Isopropylbenzene (Cumene)	4.2	0.25		21	1.2	2	12/14/18 8:30	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.10		ND	0.36	2	12/14/18 8:30	BRF
Naphthalene	ND	0.10		ND	0.52	2	12/14/18 8:30	BRF
Toluene	0.74	0.10		2.8	0.38	2	12/14/18 8:30	BRF
1,2,4-Trimethylbenzene	ND	0.10		ND	0.49	2	12/14/18 8:30	BRF
1,3,5-Trimethylbenzene	0.13	0.10		0.63	0.49	2	12/14/18 8:30	BRF
m&p-Xylene	0.55	0.20		2.4	0.87	2	12/14/18 8:30	BRF
o-Xylene	0.21	0.10		0.91	0.43	2	12/14/18 8:30	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	97.7	70-130	12/14/18 8:30
4-Bromofluorobenzene (2)	110	70-130	12/14/18 8:30

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: TO-15 Prep-EPA TO-15

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
18L0604-01 [SSVP-1]	B219354	1.5	1	N/A	1000	400	60	12/13/18
18L0604-02 [SSVP-1 Duplicate]	B219354	1.5	1	N/A	1000	400	60	12/13/18
18L0604-03 [Vapor Mitigation]	B219354	1.5	1	N/A	1000	400	300	12/13/18

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B219354 - TO-15 Prep											
Blank (B219354-BLK1)					Prepared & Analyzed: 12/13/18						
Benzene	ND	0.035									
Ethylbenzene	ND	0.035									
Isopropylbenzene (Cumene)	ND	0.089									
Methyl tert-Butyl Ether (MTBE)	ND	0.035									
Naphthalene	ND	0.035									
Toluene	ND	0.035									
1,2,4-Trimethylbenzene	ND	0.035									
1,3,5-Trimethylbenzene	ND	0.035									
m&p-Xylene	ND	0.070									
o-Xylene	ND	0.035									
Surrogate: 4-Bromofluorobenzene (1)	*7.72*				*8.00*		*96.6*	*70-130*			
Surrogate: 4-Bromofluorobenzene (2)	*8.70*				*8.00*		*109*	*70-130*			
Surrogate: 4-Bromofluorobenzene (4)	*0.00*				*8.00*		*	*70-130*			
LCS (B219354-BS1)					Prepared & Analyzed: 12/13/18						
Benzene	4.61				5.00		92.3	70-130			
Ethylbenzene	4.99				5.00		99.7	70-130			
Isopropylbenzene (Cumene)	1.23				1.27		96.8	70-130			
Methyl tert-Butyl Ether (MTBE)	5.90				5.00		118	70-130			
Naphthalene	5.50				5.00		110	70-130			
Toluene	5.05				5.00		101	70-130			
1,2,4-Trimethylbenzene	5.26				5.00		105	70-130			
1,3,5-Trimethylbenzene	5.17				5.00		103	70-130			
m&p-Xylene	10.2				10.0		102	70-130			
o-Xylene	5.05				5.00		101	70-130			
Surrogate: 4-Bromofluorobenzene (1)	*8.04*				*8.00*		*100*	*70-130*			
Surrogate: 4-Bromofluorobenzene (2)	*8.61*				*8.00*		*108*	*70-130*			
Surrogate: 4-Bromofluorobenzene (4)	*0.00*				*8.00*		*	*70-130*			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
RL-12	Elevated reporting limit due to matrix interference.
V-20	Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

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INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (B219354-BS1)			Lab File ID: F121306.D			Analyzed: 12/13/18 14:26			
Bromochloromethane (1)	105284	8.627	109159	8.63	96	60 - 140	-0.0030	+/-0.50	
1,4-Difluorobenzene (1)	358410	10.399	373724	10.399	96	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	326963	14.765	357564	14.765	91	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (2)	384008	10.399	359297	10.396	107	60 - 140	0.0030	+/-0.50	
Chlorobenzene-d5 (2)	65972	14.772	59816	14.772	110	60 - 140	0.0000	+/-0.50	
Bromochloromethane (4)						60 - 140	0.0000	+/-0.50	*
1,4-Difluorobenzene (4)						60 - 140	0.0000	+/-0.50	*
Chlorobenzene-d5 (4)						60 - 140	0.0000	+/-0.50	*
Blank (B219354-BLK1)			Lab File ID: F121311.D			Analyzed: 12/13/18 18:12			
Bromochloromethane (1)	102314	8.633	109159	8.63	94	60 - 140	0.0030	+/-0.50	
1,4-Difluorobenzene (1)	342099	10.402	373724	10.399	92	60 - 140	0.0030	+/-0.50	
Chlorobenzene-d5 (1)	323884	14.765	357564	14.765	91	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (2)	340450	10.402	359297	10.396	95	60 - 140	0.0060	+/-0.50	
Chlorobenzene-d5 (2)	57747	14.765	59816	14.772	97	60 - 140	-0.0070	+/-0.50	
Bromochloromethane (4)						60 - 140	0.0000	+/-0.50	*
1,4-Difluorobenzene (4)						60 - 140	0.0000	+/-0.50	*
Chlorobenzene-d5 (4)						60 - 140	0.0000	+/-0.50	*
SSVP-1 (18L0604-01)			Lab File ID: F121324.D			Analyzed: 12/14/18 06:59			
Bromochloromethane (1)	90124	8.633	109159	8.63	83	60 - 140	0.0030	+/-0.50	
1,4-Difluorobenzene (1)	289518	10.399	373724	10.399	77	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	311884	14.765	357564	14.765	87	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (2)	289060	10.399	359297	10.396	80	60 - 140	0.0030	+/-0.50	
Chlorobenzene-d5 (2)	57477	14.765	59816	14.772	96	60 - 140	-0.0070	+/-0.50	
SSVP-1 Duplicate (18L0604-02)			Lab File ID: F121325.D			Analyzed: 12/14/18 07:48			
Bromochloromethane (1)	89403	8.627	109159	8.63	82	60 - 140	-0.0030	+/-0.50	
1,4-Difluorobenzene (1)	298026	10.399	373724	10.399	80	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	322369	14.768	357564	14.765	90	60 - 140	0.0030	+/-0.50	
1,4-Difluorobenzene (2)	296552	10.399	359297	10.396	83	60 - 140	0.0030	+/-0.50	
Chlorobenzene-d5 (2)	57999	14.765	59816	14.772	97	60 - 140	-0.0070	+/-0.50	
Vapor Mitigation (18L0604-03)			Lab File ID: F121326.D			Analyzed: 12/14/18 08:30			
Bromochloromethane (1)	94637	8.63	109159	8.63	87	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	310407	10.395	373724	10.399	83	60 - 140	-0.0040	+/-0.50	
Chlorobenzene-d5 (1)	295560	14.762	357564	14.765	83	60 - 140	-0.0030	+/-0.50	
1,4-Difluorobenzene (2)	309466	10.395	359297	10.396	86	60 - 140	-0.0010	+/-0.50	
Chlorobenzene-d5 (2)	53421	14.762	59816	14.772	89	60 - 140	-0.0100	+/-0.50	

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CONTINUING CALIBRATION CHECK

COMPOUND	TYPE			RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Benzene	AIHA,FL,NJ,NY,VA,ME
Ethylbenzene	AIHA,FL,NJ,NY,VA,ME
Isopropylbenzene (Cumene)	AIHA,NJ,NY,ME
Methyl tert-Butyl Ether (MTBE)	AIHA,FL,NJ,NY,VA,ME
Naphthalene	NY,ME
Toluene	AIHA,FL,NJ,NY,VA,ME
1,2,4-Trimethylbenzene	AIHA,NJ,NY,ME
1,3,5-Trimethylbenzene	AIHA,NJ,NY,ME
m&p-Xylene	AIHA,FL,NJ,NY,VA,ME
o-Xylene	AIHA,FL,NJ,NY,VA,ME

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	03/1/2020
MA	Massachusetts DEP	M-MA100	06/30/2019
CT	Connecticut Department of Publiic Health	PH-0567	09/30/2019
NY	New York State Department of Health	10899 NELAP	04/1/2019
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2019
RI	Rhode Island Department of Health	LAO00112	12/30/2018
NC	North Carolina Div. of Water Quality	652	12/31/2019
NJ	New Jersey DEP	MA007 NELAP	06/30/2019
FL	Florida Department of Health	E871027 NELAP	06/30/2019
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2019
ME	State of Maine	2011028	06/9/2019
VA	Commonwealth of Virginia	460217	12/14/2018
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2019
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2019
NC-DW	North Carolina Department of Health	25703	07/31/2019

18L0604

http://www.contestlabs.com

Doc #378 Rev 1_03242017

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Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

39 Spruce Street
East Longmeadow, MA 01028

CHAIN OF CUSTODY RECORD (AIR)

Company Name: Mountain Research, LLC
Address: 825 25th Street, Altoona, PA 16601
Phone: 814-949-2034
Project Name: Woodland Food & Fuel
Project Location: Woodland, PA
Project Number: 4923.18.01 PO 26215
Project Manager: Jason Haney
Con-Test Quote Name/Number: RJM 1812072
Invoice Recipient:
Sampled By: JH

Requested Turnaround Time
7-Day ☐ 10-Day ☑ JH
Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☑ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☐
Other:
CLP Like Data Pkg Required: ☐
Email To: jhaney@mountainresearch.com
Fax To #:

ANALYSIS REQUESTED

Please fill out completely, sign, date and retain the yellow copy for your records

Summa canisters and flow controllers must be returned within 15 days of receipt or rental fees will apply

For summa canister and flow controller information please refer to Con-Test's Air Media Agreement

Lab Use: Con-Test Work Order#	Client Use: Client Sample ID / Description	Collection Data: Beginning Date/Time	Collection Data: Ending Date/Time	Duration: Total Minutes Sampled	Flow Rate: m³/min L/min	Matrix: Code	Volume: Liters m³	BTEX, Cumene	Naphthalene, MTBE	1,2,4-TMB, 1,3,5-TMB		Initial Pressure (" Hg)	Final Pressure (" Hg)	Lab Receipt Pressure (" Hg)	Summa Can ID	Flow Controller ID
1	SSVP-1	12/11/18 1548	12/11/18 1613			SG		X	X	X		-27	-5	6.2 JH	~~1548~~ 1732	4190
2	SSVP-1 Duplicate	12/11/18 1548	12/11/18 1618			SG		X	X	X		-28	-5	6.3	1456	4181
3	Vapor Mitigation	12/11/18 1549	12/11/18 1619			SG		X	X	X		-26	-5	6.6	1615	4180

Comments: Concentrations should be low to clean.

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Matrix Codes:
SG = SOIL GAS
IA = INDOOR AIR
AMB = AMBIENT
SS = SUB SLAB
D = DUP
BL = BLANK
O = Other_____

	Date/Time
Relinquished by: (signature)	12/12/18 1030
Received by: (signature)	12/13/18 854
Relinquished by: (signature)	
Received by: (signature)	
Relinquished by: (signature)	
Received by: (signature)	

Detection Limit Requirements
MA
CT
Other:

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ Other

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

con-test ANALYTICAL LABORATORY www.contestlabs.com

Table of Contents

MOUNTAIN RESEARCH, LLC

Purchase Order 26215

DRAFT

DATE 12/12/18

TO	SHIP TO	BILL TO
FILLI, LLC CON_TEST DBA/CON-TEST ANALYTICAL LABORATORY 39 SPRUCE STREET EAST LONGMEADOW, MA 01028 PHONE 413-525-2332 x 55 FAX 413-525-6405	MOUNTAIN RESEARCH, LLC 825 25th Street Altoona, PA 16601 PHONE 814-949-2034 EXT 230 FAX 814-949-9591 E-MAIL ewalters@mountainresearch.com	MOUNTAIN RESEARCH, LLC 825 25th Street Altoona, PA 16601 PHONE 814-949-2034 ext 230 FAX 814-949-9591 E-MAIL ewalters@mountainresearch.com

P.O. NUMBER	ORDER DATE	BUYER	PAY TERMS	EXCESS RECV	EXCESS %	EXCESS AMOUNT
26215	12/12/18	Haney, Jason	21	N		

AGREEMENT TERMS

Seq	Description	Item Number	Quantity		Unit Price	Net Amount	Due Date
1	TP-15 ANALYSIS 2 DAY RUSH (DISCUSSED WITH RJ)		3.00		240.00	720.00	1/11/2019

Total
720.00

v7.5.723 (EWALTERS) -

FedEx

773950454428

Delivered
Thursday 12/13/2018 at 8:54 am

DELIVERED

Signed for by: M.PETRAITIS

GET STATUS UPDATES

OBTAIN PROOF OF DELIVERY

FROM	TO
Altoona, PA US	EAST LONGMEADOW, MA US

Shipment Facts

TRACKING NUMBER 773950454428	**SERVICE** FedEx Priority Overnight	**WEIGHT** 22 lbs / 9.98 kgs
DIMENSIONS 22x18x14 in	**DELIVERED TO** Shipping/Receiving	**TOTAL PIECES** 1
TOTAL SHIPMENT WEIGHT 22 lbs / 9.98 kgs	**TERMS** Recipient	**PURCHASE ORDER NUMBER** 26215
SHIPPER REFERENCE Project 4923.18.01	**PACKAGING** Your Packaging	**SPECIAL HANDLING SECTION** Deliver Weekday
STANDARD TRANSIT ? 12/13/2018 by 10:30 am	**SHIP DATE** ? Wed 12/12/2018	**ACTUAL DELIVERY** Thu 12/13/2018 8:54 am

Travel History

Local Scan Time

Thursday, 12/13/2018		
8:54 am	EAST LONGMEADOW, MA	Delivered
8:09 am	WINDSOR LOCKS, CT	On FedEx vehicle for delivery
7:37 am	WINDSOR LOCKS, CT	At local FedEx facility
6:52 am	EAST GRANBY, CT	At destination sort facility
5:17 am	INDIANAPOLIS, IN	Departed FedEx location
Wednesday, 12/12/2018		
11:30 pm	INDIANAPOLIS, IN	Arrived at FedEx location

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

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Doc# 278 Rev 6 2017

Air Media Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Mountain Research

Received By RAP | Date 12/13/18 | Time 854

How were the samples received? In Cooler ____ | On Ice ____ | No Ice ____ | In Box T | Ambient ____ | Melted Ice ____

Were samples within Temperature Compliance? 2-6°C ____ | By Gun # ____ Actual Temp - ____ | By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? NA | Were Samples Tampered with? NA

Was COC Relinquished ? T | Does Chain Agree With Samples? T

Are there any loose caps/valves on any samples? F

Is COC in ink/ Legible? T

Did COC Include all Pertinent Information? Client T | Analysis T | Sampler Name T | Project T | ID's T | Collection Dates/Times T

Are Sample Labels filled out and legible? T

Are there Rushes? T | Who was notified? Britt

Samples are received within holding time? T

Proper Media Used? T | Individually Certified Cans? F

Are there Trip Blanks? F | Is there enough Volume? T

Containers:	#	Size	Regulator	Duration	Accessories:			
Summa Cans	3	6L	3	30 min	Nut/Ferrule		IC Train	
Tedlar Bags					Tubing			
TO-17 Tubes					T-Connector		Shipping Charges	
Radiello					Syringe			
Pufs/TO-11s					Tedlar			

Can #'s					Reg #'s				
1732					4190				
1456					4181				
1615					4180				
Unused Media					Pufs/TO-17's				

Comments:

APPENDIX S

PNDI SEARCH AND RESULTS

1. PROJECT INFORMATION

Project Name: **Woodland Food and Fuel**
Date of Review: **9/11/2018 10:33:14 AM**
Project Category: **Hazardous Waste Clean-up, Site Remediation, and Reclamation, Spill (e.g., oil, chemical)**
Project Area: **2.82 acres**
County(s): **Clearfield**
Township/Municipality(s): **BRADFORD**
ZIP Code: **16881**
Quadrangle Name(s): **WALLACETON**
Watersheds HUC 8: **Upper West Branch Susquehanna**
Watersheds HUC 12: **Morgan Run-Lower Clearfield Creek**
Decimal Degrees: **40.999554, -78.346038**
Degrees Minutes Seconds: **40° 59' 58.3927" N, 78° 20' 45.7364" W**

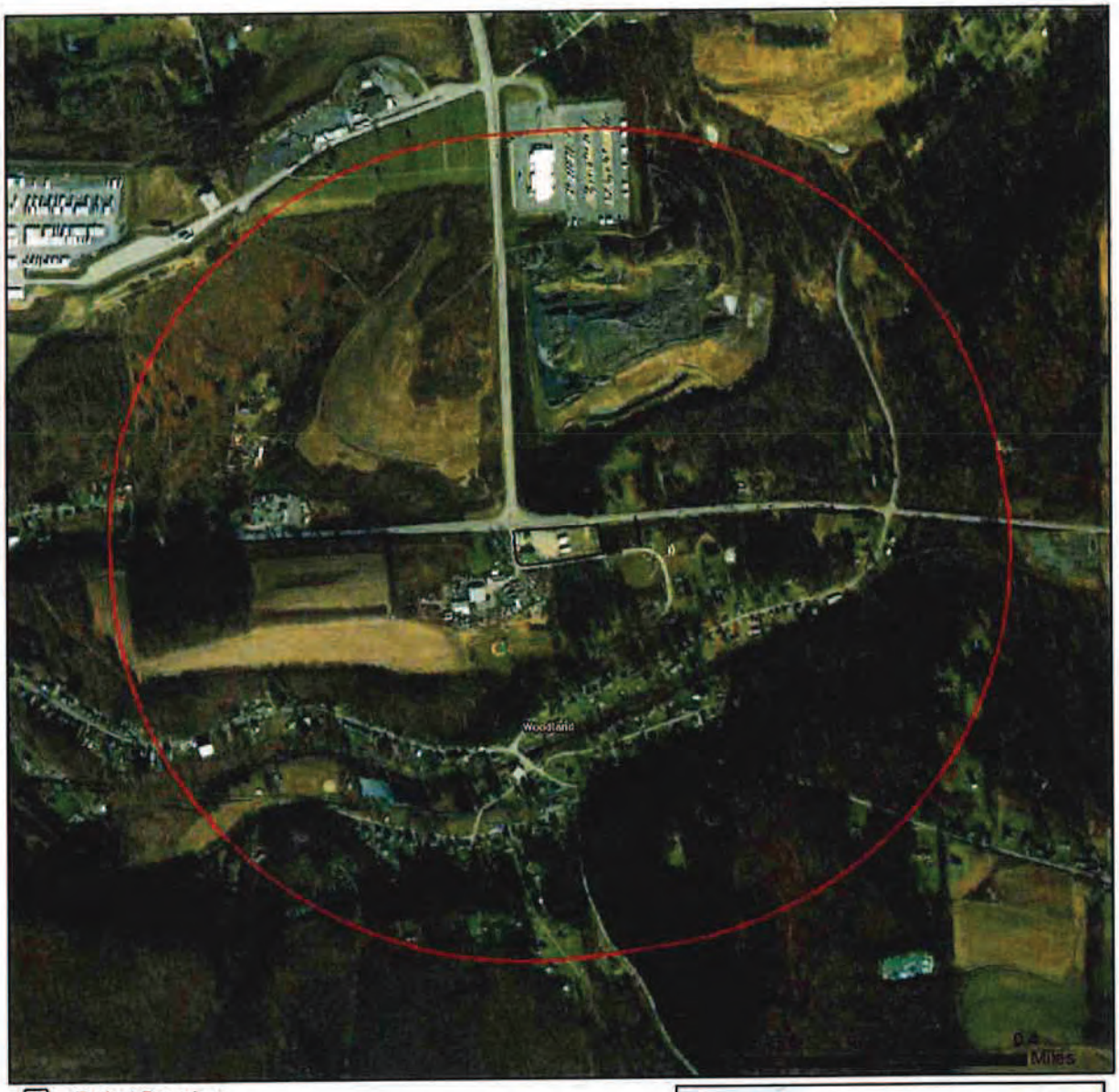
This is a draft receipt for information only. It has not been submitted to jurisdictional agencies for review.

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

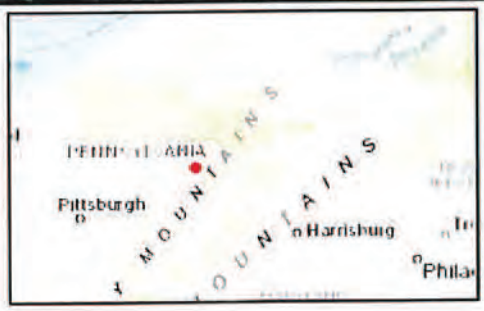
As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

Woodland Food and Fuel



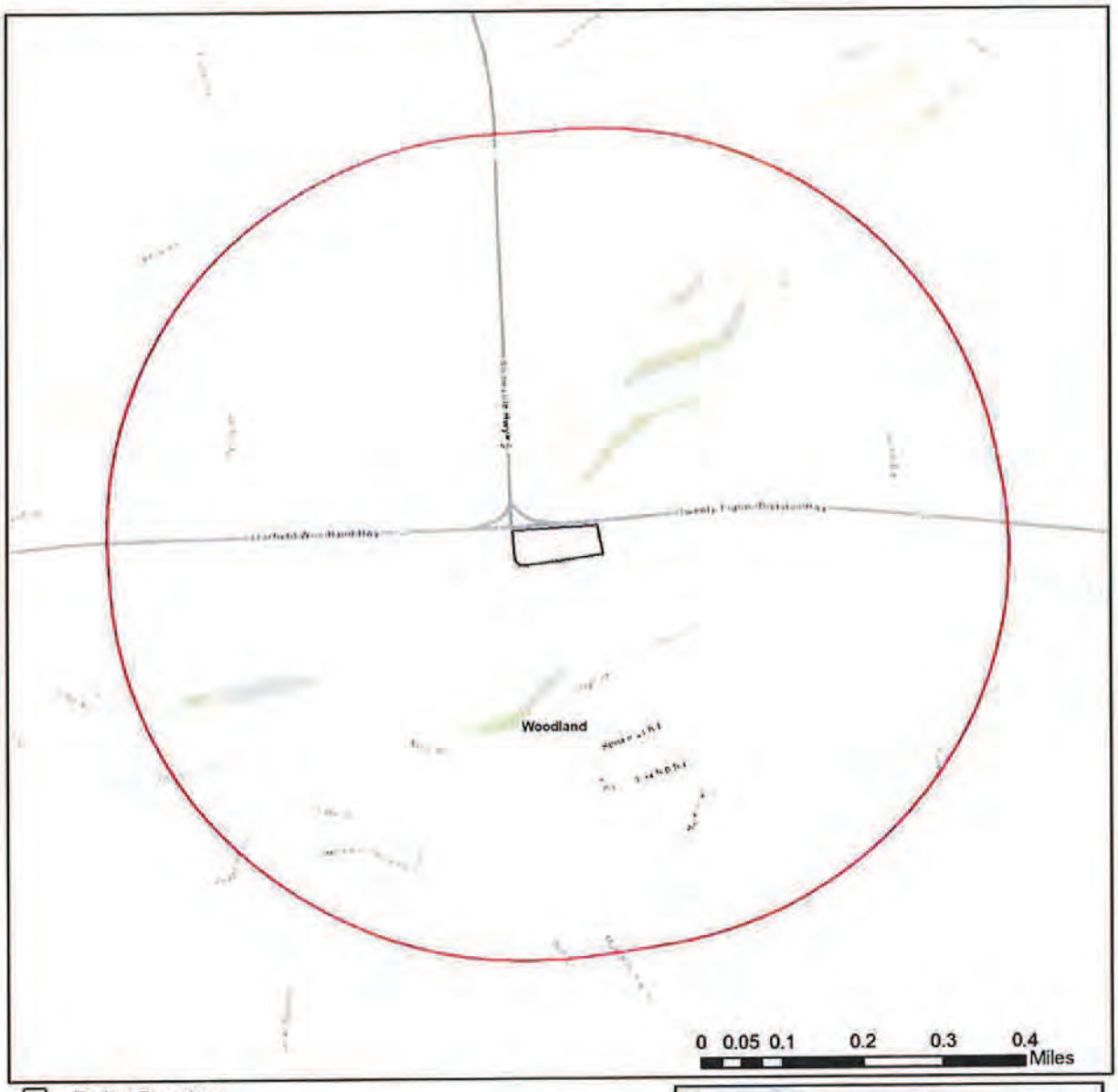
Project Boundary

Buffered Project Boundary



Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community

Woodland Food and Fuel



Project Boundary

Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jursidictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at https://conservationexplorer.dcnr.pa.gov/content/resources.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.