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June 9, 2016

Ms. Susan Kennedy
Environmental Cleanup and Brownfields Program
Pennsylvania Department of Environmental Protection
Southeast Regional Office
2 East Main Street
Norristown, PA 19401-4915

RE: Revised Site Characterization Report

Herr Foods, Inc.

273 Old Baltimore Pike

West Nottingham Township, Chester County

Facility ID No. 15-24418 Incident No. 47318

RETTEW Project No. 101722001

FED-EX

Dear Ms. Kennedy:

RETTEW Associates, Inc. has prepared the enclosed Revised Site Characterization Report on behalf of Herr Foods, Inc. (Herr's) to describe corrective action performed to date to address a subsurface release of petroleum from a regulated underground storage tank system at the referenced location. The Site-Specific Standard has been selected for groundwater to address off-site dissolved benzene and MTBE impacts to wetlands and surface water. As such, this report includes fate and transport analyses, development of water quality-based effluent limits and an ecological risk assessment.

If you have any questions regarding the attached report, please contact me at edziedzie@rettew.com (717) 205-2217.

Sincerely,

Edward Dziedzic, P.G.

Project Manager

Enclosures

copy: Matthew Gojmerac, Herr's

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HERR FOODS, INC. MANUFACTURING FACILITY 273 OLD BALTIMORE PIKE WEST NOTTINGHAM TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA FACILITY ID No. 15-24418

PREPARED FOR:

Herr Foods, Inc. 20 Herr Drive Nottingham, Pennsylvania 19362

PREPARED BY:

RETTEW Associates, Inc. 3020 Columbia Avenue Lancaster, Pennsylvania 17603

RETTEW Project No. 101722001

June 10, 2016

EDWARD G DZIEDZIC

Edward Dziedzic, P.G. Senior Geologist

HERR FOODS, INC. MANUFACTURING FACILITY 273 OLD BALTIMORE PIKE NOTTINGHAM, PENNSYLVANIA RETTEW PROJECT NO. 101722001

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1.0 INTRODUCTION

This Revised Site Characterization Report (SCR) has been prepared by RETTEW Associates, Inc. on behalf of Herr Foods, Inc. (Herr's), to document corrective action activities conducted at Herr's manufacturing facility, located at 273 Old Baltimore Pike in West Nottingham Township, Chester County, Pennsylvania. A Site Location Map is included as **Figure 1**.

This report was prepared in accordance with the corrective action regulations defined in Title 25 Pennsylvania Code Chapter 245 titled *Administration of the Storage Tank and Spill Prevention Program* and the requirements of the Pennsylvania Land Recycling and Remediation Standards Act (Act 2). Herr's owns the subject property, which is currently operating as a snack food manufacturing facility. Corrective action focused on a regulated underground storage tank (UST) system located at the facility truck garage on the property, which is used for maintaining and fueling Herr's fleet vehicles. Corrective action was initiated following the discovery of petroleum impacted soil during due diligence performed at the property in October 2014. A Notification of Reportable Release was submitted by Herr's to the Pennsylvania Department of Environmental Protection (PADEP) on December 22, 2014.

Site characterization was performed in several iterative phases between February 2015 and April 2016 to delineate soil and groundwater impacts resulting from the release. The methods and findings of each phase of site characterization were presented in various reports submitted to the PADEP, including a Preliminary Site Characterization Report (April 23, 2015), a Remedial Action Progress Report (August 13, 2015), and a Site Characterization Report (November 11, 2015). This Revised SCR summarizes site characterization activities completed to date, fate and transport analysis and remediation standard selection.

2.0 SITE DESCRIPTION AND BACKGROUND

Herr's facility is a 13.8-acre property owned and operated by Herr's and historically used for snack food manufacturing. The property is currently improved with three permanent structures: a 312,000 square-foot manufacturing facility (known as Nottingham Plant 1), a wastewater treatment plant (WWTP) and a truck garage. Paved access drives, parking lots and grass lawn areas cover the remainder of the property as shown on **Figure 2**. Nottingham Plant 1 is served by a water supply well located 3,100 feet southeast of the truck garage on a separate parcel owned by Herr's. Sanitary and process wastewater generated at Nottingham Plant 1 is treated at the WWTP. Treated wastewater is discharged off-site to a land application facility in accordance with a PADEP Part II Water Quality Permit.

The truck garage is located on the southern portion of the property as shown on **Figure 2**. The truck garage was built in 1978 and is currently used for the maintenance of Herr's fleet vehicles. Four sub-slab hydraulic lifts are located within the service bays of the truck garage for vehicle maintenance. The area surrounding the truck garage is covered with impervious asphalt paving and is used for parking Herr's fleet trucks and trailers. The truck garage is connected to the off-site water supply well that serves Plant 1; however, the truck garage was previously served by a decommissioned water supply well located on the property (**Figure 3**). The former supply well is disconnected from the truck garage and is no longer used. The truck garage is also served by a septic drainfield. A Site Plan showing the truck garage, the former supply well, and the location of the septic drainfield is included as **Figure 3**.

Regulated gasoline and diesel UST systems and associated dispensers are used for vehicle fueling at the property (PADEP Facility ID No. 15-24418). The current UST systems include a 10,000-gallon unleaded gasoline tank (Tank 008) and a 10,000-gallon diesel tank (Tank 009). These tanks were installed in 1997

and replaced five former USTs (Tank 003 through Tank 007). Current and former UST locations are shown on **Figure 3** and are described below.

Tank Registration No.	Capacity	Contents	Status
003	4,000-gallons	New Motor Oil	Removed
004	4,000-gallons	Unleaded Gasoline	Removed
005	15,000-gallons	Unleaded Gasoline	Removed
006	12,000-gallons	Diesel Fuel	Removed
007	1,000-gallons	Waste Oil	Removed
008	10,000-gallons	Unleaded Gasoline	In-Service
009	10,000-gallons	Diesel Fuel	In-Service

2.1 1997 UST CLOSURE SUMMARY

Tanks 003 through 007 were removed from service between May 28 and June 4, 1997 by a PADEP certified contractor, Clayton Services Corporation, of North Wales, Pennsylvania. During UST closure activities, petroleum impacted soil was encountered and removed. A closure report submitted to the PADEP dated July 2, 1997 detailing the removal of Tank 003 through Tank 007 indicated the following:

- Piping associated with Tank 005 and Tank 006 was described as "suspect" at unions and connections under the pumps;
- Holes were observed in the bottom of Tank 005 and Tank 006;
- Obvious contamination was not observed at Tank 003 or Tank 007, and confirmatory soil samples were collected for laboratory analysis;
- Obvious, localized contamination (elevated soil screening data) was observed at Tank 004;
- Obvious, localized contamination (holes in USTs) was observed at Tank 005 and Tank 006;
- Petroleum-impacted soil was excavated within two feet of the UST systems for Tank 004, Tank 005, and Tank 006, and confirmatory soil samples were collected for laboratory analysis;
- Confirmatory soil sample analytical results revealed concentrations of methyl tert butyl ether (MTBE) exceeding the unsaturated soil standard/action level of 2,000 micrograms per kilogram (μg/kg) in soil samples 004-2, PI-5, and PI-6 (Figure 3); and
- A total of 1,200 tons of petroleum-impacted soil was excavated and removed from the Site for proper disposal.

The confirmatory soil samples that exceeded the unsaturated soil standard/action level for MTBE were collected at depths ranging from nine to 12 feet below grade. On July 2, 1997, a Notification of Reportable Release was submitted to the PADEP. The notification indicated that contamination was confirmed at the Site and was described as product stained or product saturated soil, and free product or sheen on ponded water. It is noted that ponded water was described as runoff that collected in the UST excavation and was not groundwater. In correspondence dated November 17, 1997, PADEP indicated that they accepted the Closure Report, and that "no further action is required regarding the closure of the tanks". The UST Closure Report, Notification of Reportable Release, and the PADEP response is included as **Appendix A**.

2.2 PHASE I AND PHASE II ESA SUMMARY

A previous Phase I and Phase II Environmental Site Assessment (ESA) was conducted at the property by RETTEW between April and October 2014 to satisfy environmental due diligence as part of a loan application package, which identified several recognized environmental conditions (RECs) associated with

both past and current land uses. The identified RECs at the property included several trench-style floor drains, which discharge to the septic drainfield, and the five subgrade hydraulic lifts located in the truck garage. The purpose of the Phase II ESA was to investigate soil quality at each REC and compare results to applicable remediation standards. Details of the Phase II ESA methods and findings are documented in the Limited Phase II Environmental Site Assessment Report dated November 17, 2014.

On October 16, 2014, five soil borings (identified as SB-6 through SB-10 – see **Figure 3**) were advanced at the truck garage to investigate soil quality near the locations of the hydraulic lifts, floor drains and septic drainfield. RETTEW personnel documented the lithology encountered in each soil boring and field-screened the soil using a photoionization detector (PID) to detect the presence of volatile organic petroleum compounds.

The soil sample with the highest PID reading in each soil boring was submitted for laboratory analysis. Soil samples collected from SB-6 through SB-8 near the hydraulic lifts were submitted for laboratory analysis of the PADEP Short List of Petroleum Products for lubricating oils. Soil samples collected from SB-9 and SB-10 near the septic drainfield were submitted for laboratory analysis of Priority Pollutant List volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and metals. A soil sample analytical data summary is presented as **Table 1**.

Soil sample analytical results showed that benzene, ethylbenzene and toluene were detected in SB-7 and SB-8 at concentrations exceeding their Act 2 non-residential Statewide Health Standards. Naphthalene was detected in SB-8 at a concentration exceeding the Act 2 non-residential Statewide Health Standard of 25,000 ppb. Generally, most of the Short List Products for lubricating oils were detected at SB-7 and SB-8 at concentrations below the non-residential Statewide Health Standards. Benzene, toluene, ethylbenzene, xylenes, naphthalene, flourene, phenanthrene and pyrene were also detected at SB-6 at concentrations below the Act 2 non-residential Statewide Health Standards.

The detected concentrations of benzene at SB-7 and SB-8 exceeded their soil-to-groundwater Medium Specific Concentrations (MSCs) protective of groundwater. Similarly, the detected concentration of naphthalene at SB-8 exceeded its soil-to-groundwater MSC. This suggests that benzene and naphthalene could potentially leach from the soil to the groundwater at concentrations exceeding their respective groundwater MSCs. The occurrence of VOCs (i.e., benzene and naphthalene) downgradient of the UST system also suggested that the regulated UST system or former UST system could potentially be a source of the soil impacts.

2.3 INTERIM REMEDIAL ACTION

Herr's maintains and inspects the USTs and leak detection systems on a regular basis. During June 2014, a certified inspector performed a storage tank facility operations inspection that included the results of line tightness testing and leak detection system inspection. The inspection did not reveal any significant compliance issues associated with the UST system. The inspection indicated that the Veeder Root interstitial leak detection system was operational with maintenance and calibration records for the past year. The only noted item was that the tank top sumps contained water, which was removed. Line tightness testing was completed on March 3, 2014 with no leaks detected. The Facility Operations Inspection Report and the results of the line tightness testing is included in **Appendix B**.

3.0 GEOLOGIC AND HYDROGEOLOGIC SETTING

According to publications of the Pennsylvania Bureau of Topographic and Geologic Survey¹, the property is located in the Piedmont Upland Section of the Piedmont Physiographic Province of Pennsylvania, and is underlain by complexly folded and faulted schist, gneiss, quartzite and some saprolite. Local topography is characterized by broad, rounded to flat-topped hills and shallow valleys. According to the USGS 7.5-minute Rising Sun Quadrangle (**Figure 1**), the truck garage is situated at an approximate elevation of 510 feet. Surface topography slopes gently to the southeast. The headwater of an unnamed tributary (UNT) to North East Creek is located approximately 300 feet east of the truck garage and flows generally to the southeast.

Soils mapped at the truck garage by the U.S. Department of Agriculture (USDA) Soil Conservation Service's Web Soil Survey are described as the Glenelg silt loam, 3 to 8 percent slopes (GgB), the Glenville silt loam, 3 to 8 percent slopes (GlB), the Urban land, 0 to 8 percent slopes (UrB), and the Urban land-Glenelg complex, 0 to 8 percent slopes (UrmB)². The Urban land map units are comprised of highly disturbed or worked soils that show the effects of earth grading and compaction. Urban land is mapped over the majority of the truck garage. The Glenelg soil series consists of very deep, well drained soils formed in residuum weathered from micaceous schist on uplands of the Blue Ridge and the Northern Piedmont. Depth to bedrock is six to 10 feet or more. Saturated hydraulic conductivity is moderately high in the subsoil and moderately high to high in the substratum. The Glenville soil series consists of very deep, moderately well drained or somewhat poorly drained soils formed primarily in colluvium or residuum affected by soil creep that is weathered from phyllite, micaceous schist, granitic gneiss and other acid crystalline rocks. Depth to bedrock is more than five feet. The profile contains a dense, restrictive horizon called a fragipan that restricts root and water movement. Saturated hydraulic conductivity is moderately low to moderately high.

The geology mapped by the Chester County Water Resources Authority, in cooperation with the USGS³, indicates that the property is underlain by the Wissahickon Schist of the Glenarm Supergroup (see **Figure 4**). The Wissahickon Schist is described as light to medium gray schist and gneiss. The rocks of the Glenarm Supergroup surround massifs of older pre-Cambrian felsic and ultramafic gneiss basement rock. Ultramafic rock (i.e., serpentinite) associated with the Baltimore Mafic Complex is mapped approximately 1,000 feet south of the property. Geologic strike and structural trend of the Wissahickon Formation is generally oriented to the east-northeast.

In the area of the property, the fractured bedrock aquifers are characterized as crystalline rocks (Wissahickon Schist³). In the crystalline rocks, groundwater moves through the granular primary porosity of the weathered saprolite to a network of interconnected secondary fractures and joints in the bedrock aquifer. The groundwater flow systems are local and discharge to streams. Groundwater flows from areas of higher elevation to adjacent streams and flow paths tend to be short. Groundwater basins and surface water basins tend to coincide. Crystalline rock aquifers are generally under water-table (unconfined) conditions and the water table generally mimics surface topography; however, semi-confined conditions may be present locally.

¹ W.D. Sevon, 2000, Map 13, <u>Physiographic Provinces of Pennsylvania</u>, Pennsylvania Bureau of Topographic and Geologic Survey, Harrisburg, Pennsylvania.

² Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/app/ accessed [November 3, 2014].

³ Sloto, R., 1994, <u>Geology, Hydrology, and Ground-Water Quality of Chester County, Pennsylvania</u>, Chester County Water Resources Authority, Water Resource Report 2, West Chester, Pennsylvania.

In the Piedmont Upland, the soils (regolith) are composed of granular to clayey soil, saprolite, and decomposed bedrock⁴. The regolith allows the infiltration of precipitation and is capable of storing large quantities of water in the intergranular pore spaces. Water is then slowly released to the underlying fractured bedrock aquifer. Generally, the porosity of the regolith exceeds the porosity of the fractured bedrock aquifer. The direction and rate of groundwater flow within the regolith can be affected by the degree of bedrock weathering, mineral composition of the parent bedrock, orientation of mineral grains (mica), the presence of shear zones, quartz veins and fractures.

The UNT to North East Creek is classified as an intermittent stream according to the USGS National Hydrography Dataset (NHD). Intermittent streams have flowing water during the wet season (i.e., winter and spring), but are normally dry during hot summer months. Intermittent streams do not have continuous flowing water year-round. The headwater of the UNT is located approximately 300 feet east of the truck garage adjacent to a railroad right of way (**Figure 3**) and is characterized as an area of seasonal groundwater discharge. During the wet season, standing water forms in this area and flows to a culvert under the railroad, and continues to flow as surface water to the south and southeast toward North East Creek, located 6,700 feet southeast of the property.

4.0 SITE CHARACTERIZATION METHODS AND FINDINGS

Site characterization was performed in iterative phases between February 2015 and April 2016 to delineate soil and groundwater impacts resulting from the release. The discovery of VOCs (i.e., benzene and naphthalene) during the Phase II ESA downgradient of the UST system suggests that the source of the subsurface petroleum impacts likely originated from the UST system area of the Site. For this reason, site characterization focused on delineating soil and groundwater impacts surrounding the unleaded gasoline and diesel UST systems. Site characterization methods included the installation of 20 soil borings to delineate soil quality, and the installation of 13 groundwater monitoring wells to define the hydraulic gradient. Quarterly groundwater monitoring was also initiated at the truck garage in March 2015 to delineate groundwater quality. Site characterization methods are described in the following sections.

4.1 SOIL BORING INSTALLATION AND SOIL SAMPLE ANALYSIS

A total of 20 soil borings (identified as SB-11 through SB-30) were advanced at the truck garage to delineate soil quality as shown on **Figure 3**. The 20 soil borings were advanced using a track-mounted Geoprobe® operated by Odyssey Environmental Services, Inc. (Odyssey) of Harrisburg, Pennsylvania. The 20 soil borings were completed during two separate mobilizations that occurred in February 2015 and June 2015. Undisturbed soil samples were recovered continuously with the Geoprobe®, and RETTEW personnel documented the lithology encountered in each soil boring and field-screened the soil using a PID to detect the presence of VOCs. The soil borings were advanced to a maximum depth of 20 feet, except where equipment refusal was encountered. Lithology encountered consisted of asphalt, sub-base and gravel fill, and soils were generally classified by RETTEW as micaceous silt and sand overlying saprolitic schist and gneiss. Groundwater was noted in most borings at depths ranging from 10 feet to 18 feet below grade. Boring logs are attached in **Appendix C**.

The soil sample with the highest PID reading in each soil boring was submitted for laboratory analysis. A soil sample was collected at the terminal depth in the borings if PID readings were less than one part per million (ppm). Where PID readings were elevated, more than one soil sample was submitted for laboratory

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⁴ D.J. Low, D.J. Hippe and D. Yannacci, 2002, <u>Geohydrology of Southeastern Pennsylvania</u>, United States Geological Survey, Water-Resources Investigations Report 00-4166.

analysis in an effort to vertically delineate soil impacts. Each soil sample was preserved in the field, placed in a cooler with ice, and delivered to Lancaster Laboratories Environmental (LLE) of Lancaster, Pennsylvania, following standard chain-of-custody procedures. All soil samples collected at the truck garage were submitted for laboratory analyses of the PADEP Short List of Petroleum Products for unleaded gasoline and diesel fuel. One soil sample, collected at a depth of 14 feet below grade immediately above the water table at SB-11 and considered to be representative of upgradient aquifer material, was submitted to LLE for analysis of organic carbon content. A soil sample analytical data summary is presented as **Table 2**. Soil sample analytical data sheets are provided in **Appendix D**.

In addition to the soil sampling and analysis described above, an undisturbed soil sample was collected in the acetate liner of the Geoprobe tooling at SB-11 at a depth of 14 feet below grade. This sample was delivered to Jay Kay Testing, Inc. (Jay Kay) of Spring Grove, Pennsylvania, following standard chain-of-custody procedures. The undisturbed sample was submitted for laboratory analyses of bulk density and grain size analysis. Analytical results for the sample of representative aquifer material are summarized below.

Physical Parameter	Result
Organic Carbon Content	0.0118% (by weight)
Dry Bulk Density	111.6 PCF
Percent Sand	56.2%
Percent Gravel	0.3%
USCS Classification	Silty Sand (SM)
Moisture Content	17.4%

Notes:

PCF – Pounds per cubic foot

USCS - Unified Soil Classification System

4.2 GROUNDWATER MONITORING WELL INSTALLATION

A total of 13 groundwater monitoring wells (MW-1 through MW-13) were installed by Eichelbergers, Inc., a Pennsylvania licensed driller, under the direction of a RETTEW geologist to delineate groundwater quality. Monitoring wells MW-1 through MW-5 were installed during February 2015. Monitoring wells MW-6 through MW-10 were installed during June 2015. Off-site monitoring wells MW-11 through MW-13 were installed on an adjacent parcel owned by Herr's during December 2015. On-site monitoring well locations are shown on **Figure 3**. Off-site monitoring wells are shown on **Figure 2**. Drilling logs are attached in **Appendix C**.

MW-1 through MW-10 were installed in eight-inch diameter boreholes drilled using air-rotary drilling methods. Due to saturated conditions and borehole collapse below a depth of 10 feet, six-inch steel casing was installed into each boring and reamed with six-inch drilling tools to keep the borehole open. MW-11 through MW-13 were installed in a six-inch diameter borehole drilled using air-rotary drilling methods and a roller bit to minimize disturbance. Weathered schist and quartz fragments were observed at MW-4, MW-5, MW-6, MW-7, MW-9 and MW-10 at depths of ranging from 15 to 18 feet below grade. During drilling, borehole cuttings were containerized in 55-gallon open-top drums and staged on-site pending proper disposal.

Each well was constructed with appropriate lengths of two-inch diameter Schedule 40 PVC 0.020-inch slotted well screen and solid two-inch PVC well casing. The annular space between the borehole wall and the well casing was filled with a gravel filter pack and a hydrated bentonite seal, and capped with

bentonite slurry to fill the remaining annular space to surface grade. A flush-mount manhole and locking well cap was installed on MW-1 through MW-10 to prevent unauthorized access. MW-11 through MW-13 were completed with a protective stickup steel riser and locking lid. Monitoring well construction details are summarized in the following table.

Well No.	Date	Borehole	Well	Total	Screen	Solid	Initial
	Drilled	Diameter	Diameter	Depth	Interval	Interval	Water
MW-1	2/24/15	8 inch	2 inch	27 feet	7–20 feet	0-7 feet	17 feet
MW-2	2/25/15	8 inch	2 inch	23 feet	3-23 feet	0-3 feet	12 feet
MW-3	2/25/15	8 inch	2 inch	25 feet	5-25 feet	0-5 feet	13 feet
MW-4 ¹	2/26/15	8 inch	2 inch	19 feet	0-19 feet	None	10 feet
MW-5	2/26/15	8 inch	2 inch	27 feet	7-27 feet	0-7 feet	12 feet
MW-6	6/18/15	8 inch	2 inch	20 feet	3-20 feet	0-3 feet	Unknown
MW-7	6/18/15	8 inch	2 inch	20 feet	3-20 feet	0-3 feet	18 feet
MW-8	6/18/15	8 inch	2 inch	20 feet	3-20 feet	0-3 feet	Unknown
MW-9	6/18/15	8 inch	2 inch	20 feet	3-20 feet	0-3 feet	10 feet
MW-10	6/18/15	8 inch	2 inch	20 feet	3-20 feet	0-3 feet	Unknown
MW-11	12/16/15	6 inch	2 inch	15 feet	2-15 feet	0-2 feet	9 feet
MW-12	12/16/15	6 inch	2 inch	12 feet	2-12 feet	0-2 feet	6 feet
MW-13	12/16/15	6 inch	2 inch	12 feet	2-12 feet	0-2 feet	8 feet
P-1	3/25/16	2 inch	1 inch	8 feet	4-8 feet	0-4 feet	Unknown

Upon completion of drilling and well construction, each well was developed by surging and over-pumping to remove drilling residuals. The purged water generated during well development was containerized in 55-gallon open-top drums and staged on-site pending proper disposal. Due to the low volume of purged water generated during the development of MW-11 through MW-13, purge water was treated with granular activated carbon and discharged to the surface. All drilling waste was transported and disposed as residual waste at a PADEP-approved facility by Environmental Recovery Corporation (ERC) of Lancaster, Pennsylvania. Non-hazardous waste disposal manifests are provided in **Appendix E**.

The top-of-casing elevation of each monitoring well was surveyed by a RETTEW professional land surveyor and referenced to sea-level datum. Groundwater monitoring well top-of-casing elevations are shown on **Table 3**.

Two drive point wells (DPW-1 and DPW-2) were manually installed on April 6, 2016 in the area of seasonal groundwater discharge (see **Section 6.0**) as shown on **Figure 3**. The purpose of the drive point wells was to provide water level measurements and to aide in the delineation of discharging groundwater. Each drive point consisted of a 24-inch length of 1.25-inch diameter galvanized steel inner pipe with 60-mesh stainless steel gauze and screen and a cast iron point. Each drive point was installed in a three-inch diameter hand-augured hole to a depth of 24 inches below grade, and then driven to a depth of 30 inches with a threaded coupling and a 24-inch galvanized steel riser pipe and threaded cap. The annular space around the screen was filled with clean gravel and capped with bentonite hole plug to prevent surface infiltration of water. The top of each drive point was surveyed by RETTEW and referenced to sea-level datum.

4.3 GROUNDWATER SAMPLING AND ANALYSIS

RETTEW initiated groundwater sampling at the truck garage on March 9, 2015, with subsequent sampling events conducted on April 1, 2015, July 9, 2015, October 6, 2015, January 14, 2016 and April 6, 2015. In

addition, groundwater levels were collected from the monitoring well network on June 25 and September 10, 2015. During each monitoring event, groundwater levels were measured with an electronic water level indicator capable of measuring water levels to the nearest 0.01 foot. Water levels were also measured at the former supply well beginning on June 25, 2015. Low flow groundwater purging and sampling techniques were used during each monitoring event as described below. Groundwater monitoring data collected to date is summarized on **Table 3**. Since the expansion of the monitoring well network in December 2015, quarterly groundwater monitoring was conducted on January 14, 2016 and April 6, 2016. Groundwater elevation contours and resulting groundwater sample analytical data for each groundwater sampling event is illustrated on **Figure 5** through **Figure 12**.

RETTEW performed groundwater sampling on March 9, 2015 and April 1, 2015, and retained Suburban Testing Labs (STL) of Gilbertsville, Pennsylvania to conduct the groundwater monitoring events on July 9, 2015, October 6, 2015, January 14, 2016 and April 6, 2016. After gauging static water levels, groundwater was purged from each well with a peristaltic pump to maintain flow rates at approximately 250 milliliters per minute (ml/min) with minimal drawdown in accordance with the PADEP *Groundwater Monitoring Guidance Manual* (December 2001) low-flow purging methods. The pump tubing was set at a depth of eight to 10 feet below grade, corresponding to the depth of the greatest observed soil impacts at the truck garage. Purged groundwater was routed through a flow-cell and a YSI 556 water quality meter to monitor intrinsic groundwater quality parameters including pH, conductivity, dissolved oxygen (DO), total dissolved solids (TDS), temperature, and oxidation-reduction potential (ORP). Intrinsic parameters were monitored frequently until stabilization, indicative of representative groundwater chemistry. Purged groundwater was then treated with granular activated carbon (GAC) and discharged to the surface. Low flow purging and monitoring data sheets for each groundwater monitoring event are included as **Appendix F**.

Upon intrinsic parameter stabilization, groundwater samples were collected from the pump discharge tubing. To reduce the likelihood of cross-contamination, new tubing was used and nitrile gloves were worn during the collection of each groundwater sample. Groundwater samples were collected in laboratory bottleware, placed in a cooler with ice, and delivered to STL for analysis of PADEP Short List parameters for unleaded gasoline and diesel fuel. A summary of groundwater sample analytical data is provided as **Table 3**. Groundwater sample analytical reports are provided in **Appendix G**.

Groundwater samples were collected from the drive point wells (DPW-1 and DPW-2) by RETTEW on April 13, 2016 by manually bailing three well volumes from each point, and collecting a sample with a disposable bailer and nitrile gloves. Groundwater samples were collected in laboratory bottleware, placed in a cooler with ice, and delivered to LLE for analysis of PADEP Short List parameters for unleaded gasoline and diesel fuel. It is noted that drive point wells are generally not properly constructed for groundwater quality analyses. The purpose of collecting groundwater samples was to improve delineation of groundwater quality as it discharges for use in subsequent phases of site characterization. Groundwater sample analytical reports are provided in **Appendix G.** Drive point well water level measurements and groundwater sample analytical results are discussed further in **Section 6.0**.

4.4 SPL BAILDOWN TESTING AND ANALYSIS

Separate phase liquid (SPL) petroleum was observed in MW-4 during the June 25 and July 9, 2015 groundwater monitoring events. An SPL baildown test was performed by RETTEW at MW-4 on July 9, 2015 to evaluate the recoverability of SPL at the Site. Prior to the baildown test, SPL and water levels were measured with an electronic interface probe capable of measuring SPL and water levels to the nearest 0.01 foot. An apparent SPL thickness of 0.15 feet was noted in MW-4 (**Table 3**). A bailer was then used to manually remove SPL from the well. After removing SPL, water and SPL measurements were recorded in

MW-4 each minute for the first 10 minutes, then every 10 minutes thereafter to monitor SPL recharge to the well.

The plotted baildown test data indicated that a mobile SPL thickness of 0.04 feet recharged and stabilized in MW-4 after approximately 20 minutes. At the conclusion of the baildown test, the remaining SPL was removed from MW-4. All recovered SPL was placed into laboratory bottleware and transported in a cooler with ice to LLE for analysis of PADEP Short List parameters for unleaded gasoline and diesel fuel, and for quantitative fingerprint analysis. It is noted that on July 10, 2015, an apparent SPL thickness of 0.02 feet was measured at MW-4 by STL prior to groundwater purging and sampling, over 24 hours after the MW-4 baildown test. This suggests that the mobile SPL thickness ranges from 0.02 to 0.04 feet and the potential for SPL recovery at MW-4 is low. SPL was not detected in MW-4 during any subsequent groundwater monitoring events. Baildown test data and data plot are provided in **Appendix H**.

The findings of the quantitative fingerprint analysis characterized the SPL as gasoline. Based on the chromatograph peak intensities and ratios, the fingerprint analysis concluded that the SPL did not appear to be weathered, and that hydrocarbons in the C_8 - C_{40} range were present at 56 percent by weight. A summary of SPL sample analytical data is provided below.

Analytical Parameter	Concentration in SPL	Aqueous Solubility	Abundance in SPL
Benzene	600,000 μg/L	1780.5 mg/L	0.4%
Ethylbenzene	12,000,000 μg/L	161 mg/L	8.3%
Isopropylbenzene	1,300,000 μg/L	50 mg/L	0.9%
MTBE	< 10,000 μg/L	45,000 mg/L	0%
Naphthalene	380,000 μg/L	30 mg/L	0.3%
Toluene	22,000,000 μg/L	532 mg/L	15.1%
1,2,4-TMB	38,000,000 μg/L	56 mg/L	26.1%
1,3,5-TMB	12,000,000 μg/L	48.9 mg/L	8.3%
Xylenes	59,000,000 μg/L	175 mg/L	40.6%

The above parameters comprise over 14.5 percent of the SPL sample by weight. It is noted that the two most soluble parameters, benzene and MTBE, are either present at relatively low concentrations or are not detected in the SPL sample. Most of MTBE in the SPL appears to have dissolved and migrated from the source in the aqueous-phase. Both benzene and MTBE were detected in groundwater at downgradient wells MW-10 and MW-11. It is noted that the original composition of the gasoline released at the Site and the mole fraction of each parameter in the released gasoline are unknown. The SPL sample analytical report is included in **Appendix I**.

4.5 AQUIFER TESTING

Three short-duration constant-rate groundwater pumping tests were performed by RETTEW at selected wells (MW-3, MW-5 and MW-7) on July 14, 2015 to determine the hydraulic conductivity of aquifer materials. A submersible Mega Monsoon pump and control box was used for each test to maintain a constant pumping rate less than one gallon per minute (gpm). The duration of each test was approximately 40 minutes. During the tests, water levels were continuously monitored using an In-Situ, Inc. LevelTroll® pressure transducing data logger. All groundwater withdrawn during the test was treated with GAC and discharged to the surface. After pumping was terminated, water levels were continuously monitored until each well recovered to within 90 percent of the static water level. Plotted pumping test data is summarized below.

Well	Static Water Level	Pump Setting	Available Drawdown	Pumping Rate	Pumping Level	Drawdown
MW-3	3.68 feet	24 feet	20.32 feet	0.875 gpm	8.08 feet	4.40 feet
MW-5	3.61 feet	25 feet	21.39 feet	0.875 gpm	6.87 feet	3.28 feet
MW-7	4.47 feet	19 feet	14.53 feet	0.625 gpm	11.90 feet	7.43 feet

A review of the plotted pumping test data included as **Appendix J** shows the following:

- The downward slope of the plotted data for MW-5 remained constant as pumping continued, suggesting that groundwater was removed from storage as the cone of depression expanded into areas of groundwater recharge;
- The downward slope of the plotted data for MW-7 decreases after four minutes of pumping, suggesting that casing storage was depleted and the cone of depression expanded into areas of groundwater recharge; and
- The slope of the plotted data for MW-3 stabilizes after three minutes of pumping, then decreases sharply after 15 minutes of pumping, suggesting that a shallow water-bearing zone was dewatered.

Aquifer parameters were calculated using the Cooper and Jacob straight-line method⁵. The Cooper and Jacob method was derived from the Theis nonequilibrium equation and can be used to predict drawdown in the aquifer at any time after pumping begins but before the cone of depression fully stabilizes. Drawdown data for each well was plotted to determine the slope of the time-drawdown curve and calculate the aquifer transmissivity.

Transmissivity is defined as the rate at which water flows through a vertical section of the aquifer with a width of one foot extending through the full saturated thickness under a hydraulic gradient of one. When the pumping rate (Q) is held constant, transmissivity (T) is constant, and a best-fit line is drawn through the plotted data points. The slope of the line (Δs) or drawdown is used to estimate the aquifer transmissivity using the modified nonequilibrium equation as follows:

$$T = 264 Q/\Delta s$$

, where T is in units of gallons per day (gpd) per foot.

Recovery data collected at the completion of each pumping test were used to calculate residual drawdowns, which were plotted to provide an independent check on the transmissivity calculated from the pumping test results. In theory, complete recovery will occur when residual drawdown reaches "0" as the time ratio approaches "1" in an ideal aquifer, and the transmissivity can be estimated from the slope of the curve. The estimated transmissivities from the pumping and recovery tests are provided below.

	MW-3	MW-5	MW-7
Pumping Test Transmissivity	7.5 ft ² /day	29.4 ft ² /day	10.0 ft ² /day
Recovery Test Transmissivity	23 ft ² /day	28 ft ² /day	8.7 ft ² /day

The time-recovery plot is often more accurate than the time-drawdown plot. Recovery data can be collected without being disturbed or influenced by pump vibrations and momentary variations in pumping

⁵ F.G. Driscoll, 1986, <u>Groundwater and Wells</u>, Johnson Division, St. Paul, Minnesota.

rate⁵. The hydraulic conductivity (K) of the saprolite aquifer was calculated from the recovery test data using the saturated aquifer thickness (b) as follows:

$$K = T/b$$

, where **K** is in units of feet per day.

A saturated aquifer thickness of 61 feet was used based on the casing depth (74 feet) and static water level (3.3 feet) observed in the former supply well as described in **Section 4.6**, assuming the casing is set at a depth of 10 feet into competent bedrock. Calculated hydraulic conductivities are provided below.

	MW-3	MW-5	MW-7
Recovery Test Transmissivity	23 ft ² /day	28 ft²/day	8.7 ft ² /day
Recovery Test Hydraulic Conductivity	0.37 ft/day	0.45 ft/day	0.14 ft/day

4.6 FORMER SUPPLY WELL DECOMMISSIONING, SAMPLING AND ANALYSIS

RETTEW retained Odyssey to decommission the former supply well on February 29, 2016 using a portable pump hoist. Upon removal of the pump, power cable and the one-inch diameter black poly piping, the pump setting was determined to be 200 feet below the pitless adapter (total depth 203 feet below grade). RETTEW and Odyssey returned on March 1, 2016 and video-logged the former supply well. During video logging, the water table was observed at a depth of 3.3 feet below grade and the bottom of the six-inch diameter well casing was observed at 74 feet below grade. Significant iron flaking and scaling resulted in poor visibility in the open rock portion of the well; however, fractures and weathered zones were noted at 121 feet, 132 feet, 145 to 148 feet, and 172 feet. At a depth of 196 feet, water quality became clear and a steep open fracture was observed, followed by a broken and weathered zone from 198 feet to 204 feet. The well was observed to have a total depth of 210 feet, and it appears that drilling was terminated after a significant water bearing zone was encountered from 198 feet to 204 feet.

The former supply well was purged on March 25, 2016 by Odyssey using an electric submersible pump set at a depth of 100 feet. A static water level of 5.17 feet was measured prior to purging the well. Groundwater was purged from the well at a rate of 9.3 gpm for approximately 180 minutes, resulting in a pumping level of 33.09 feet and a drawdown of 28.92 feet. Over 1,700 gallons (equivalent to 5.7 well volumes) of water was purged and treated through a 55-gallon GAC vessel and discharged to the surface. Based on a drawdown of 28.92 feet and a pumping rate of 9.3 gpm, the specific capacity of the well is approximately 0.32 gpm/ft.

During the April 6, 2016 groundwater sampling event, STL collected a groundwater sample from the former supply well. Low flow groundwater purging and sampling techniques were used to collect the sample. Groundwater was purged with an electric submersible Mega Monsoon SS™ pump to maintain flow rates at approximately 250 milliliters per minute (ml/min) with minimal drawdown in accordance with the PADEP *Groundwater Monitoring Guidance Manual* (December 2001) low-flow purging methods. The pump was set at a depth of 100 feet below grade, below the casing depth observed in the well. Purged groundwater was routed through a flow-cell and a YSI 556 water quality meter to monitor intrinsic groundwater quality parameters including pH, conductivity DO, TDS, temperature, and ORP. Intrinsic parameters were monitored frequently until stabilization, indicative of representative groundwater chemistry. Purged groundwater was then treated with GAC and discharged to the surface.

Upon intrinsic parameter stabilization, a groundwater sample was collected from the pump discharge tubing. Groundwater samples were collected in laboratory bottleware, placed in a cooler with ice, and delivered to STL for analysis of the PADEP Short List parameters for unleaded gasoline and diesel fuel. Groundwater sample analytical results are provided in **Table 3.** Groundwater sample analytical reports are provided in **Appendix G.**

4.7 WATER SUPPLY SAMPLING

During the April 6, 2016 groundwater sampling event, RETTEW collected a raw groundwater sample from the water supply well for Plant 1 and the truck garage. The supply well is located 3,100 feet southeast of the truck garage on a separate parcel owned by Herr's as shown on **Figure 1**. Raw water is conveyed from the supply well 3,700 feet to Plant 2, located on an adjacent parcel (Parcel 68-2-96, **Figure 2**). A raw groundwater sample was collected inside Plant 2 from in-line sample ports installed prior to chlorination and distribution to Plant 1 and the truck garage. The raw groundwater sample was collected in laboratory bottleware, placed in a cooler with ice, and delivered to STL for analysis of the PADEP Short List parameters for unleaded gasoline and diesel fuel using EPA Method 524.2. The sample analytical results indicate that none of the PADEP Short List parameters for unleaded gasoline and diesel fuel were detected. The raw groundwater sample analytical report is provided in **Appendix G**.

5.0 SOIL QUALITY

During the collection of continuous soil samples with the Geoprobe®, lithology was observed to be primarily micaceous silty sand overlying completely decomposed saprolitic schist. Saprolitic schist was generally encountered at depths ranging from seven to 14 feet below grade. Groundwater was first encountered in the borings at depths ranging from 10 to 18 feet below grade. Geoprobe® refusal was noted in several borings (SB-12, SB-16, SB-17, SB-20 and SB-21) at depths ranging from 15 to 18 feet below grade, where weathered schist bedrock was encountered. During the drilling of MW-4 and MW-5, weathered schist and quartz fragments were observed during air rotary drilling at depths ranging from 14 to 18 feet below grade. A strike-perpendicular geologic cross-section is provided as **Figure 13**.

Static groundwater levels measured at the truck garage between March 2015 and April 2016 (**Table 3**) show that the water table fluctuated between two and six feet below grade. Soil between two and six feet below grade is within the zone of groundwater saturation during the wetter seasons, and soil below a depth of six feet is in contact with groundwater on a year-round basis. For these reasons, one-tenth of the Generic Value was used in the process to determine the Act 2 soil-to-groundwater MSC for each parameter in soil as shown on **Table 1** and **Table 2**.

Soil sample analytical results (**Table 1** and **Table 2**) show that benzene was detected in six borings (SB-7, SB-8, SB-18, SB-20, SB-23 and SB-24) at concentrations exceeding the Act 2 non-residential Statewide Health Standard of 500 μ g/kg. Toluene was detected in SB-7 and SB-8 at concentrations exceeding the Act 2 non-residential Statewide Health Standard of 100,000 μ g/kg. Ethylbenzene was detected in SB-7, SB-8 and SB-17 at concentrations exceeding the Act 2 non-residential Statewide Health Standard of 70,000 μ g/kg. Naphthalene was detected in SB-7 and SB-8 at concentrations exceeding the Act 2 non-residential Statewide Health Standard of 10,000 μ g/kg. 1,2,4-trimethylbenzene (1,2,4-TMB) and 1,3,5-TMB were detected in SB-12, SB-23, SB-27 and SB-29 at concentrations exceeding their respective Act 2 non-residential Statewide Health Standards of 6,200 μ g/kg and 5,300 μ g/kg. The regulated substances exceeding their Act 2 remediation standards noted above occurred at depths ranging from five to 13 feet below grade. Shallow soil impacts were observed at three feet below grade at SB-29 inside the truck garage. Isopropylbenzene, MTBE and xylenes were also detected in soil, but at concentrations below their respective non-residential Statewide Health Standards.

Of the six regulated substances exceeding the Statewide Health Standard, benzene is present in soil at the greatest distance from the UST system area, while 1,2,4-TMB and 1,3,5-TMB are present at the shortest distance. The aerial distribution of benzene in soil is shown on **Figure 13**. Maximum xylene concentrations were also detected near the UST system area, while maximum ethylbenzene and toluene concentrations were detected at an intermediate distance from the UST system area.

The aerial distribution of BTEX in soil is reflective of the aqueous solubility of each substance, which are provided below.

Parameter	Benzene	Toluene	Ethylbenzene	Xylenes	1,2,4-TMB	1,3,5-TMB
Solubility (mg/L)	1,780.5	532	161	175	56	48.9
K _{oc} (I/kg)	58	130	220	350	2,200	660

Notes:

 K_{oc} = Soil-water partitioning coefficient

Due to their lower solubilities, ethylbenzene, xylenes and TMB are preferentially retained in soil and are more resistant to degradation than benzene and toluene. In contrast, the higher solubility of benzene may account for its presence in soil at a greater distance from the current and former UST systems.

The vertical distribution of benzene in soil is shown on **Figure 14**. The maximum benzene concentrations were observed in the eight to 12-foot depth range.

6.0 GROUNDWATER FLOW

Groundwater at the property occurs in pores and relict fractures in the weathered decomposed schist saprolite overlying a fractured bedrock aquifer system. Based on static water level data, the water table is generally within six feet of surface grade. Groundwater flow patterns and hydraulic gradients are similar during each monitoring event, with an apparent groundwater flow direction to the east (N 80° E) and an average hydraulic gradient of 0.018 as shown on **Figure 5** through **Figure 12**. As groundwater flows off the property, the hydraulic gradient shows an apparent groundwater flow direction to the southeast as shown on **Figure 17**. Groundwater elevations shown on **Figure 17** were based in part on water levels measured during the April 6, 2016 monitoring event at selected monitoring wells surrounding Herr's wastewater disposal fields.

The median thickness of the regolith (including saprolite) in the Piedmont Upland is reported to be 40 feet⁶. The degree of fracturing in the parent rock contributes to the development of saprolite, as more highly fractured parent rocks tend to weather and produce a thicker saprolite mantle. The saprolite thickness at the property is assumed to be 61 feet based on the observed water level (3.3 feet) and casing depth (74 feet) of the former supply well described in **Section 4.5**.

The property is located in an upland area within 1,000 feet of the drainage divide between Octoraro Creek and North East Creek (**Figure 1**). The groundwater recharge area for the property extends to the northwest and southwest toward the divide, with elevations of the contributing areas ranging from 540 to 560 feet. Based on local topography, regional drainage patterns and interpreted fracture traces (**Figure 4**), regional groundwater is expected to flow to the east and southeast toward the UNT to North East Creek, located 150 feet east of the property boundary. An inferred fracture trace trends from northwest to southeast through the property, resulting in a topographic depression (**Figure 2**). Surface elevations at the property

⁶ D.J. Low, D.J. Hippe and D. Yannacci, 2002, <u>Geohydrology of Southeastern Pennsylvania</u>, United States Geological Survey, Water-Resources Investigations Report 00-4166.

range from 513 feet (MW-1) to 508 feet (MW-10). As described in **Section 3.0**, groundwater flow systems in the area of the property are local and discharge to streams. Groundwater from contributing areas of higher elevation flows across the property to the inferred fracture trace, and ultimately discharges to form the headwater of the UNT to North East Creek southeast of the property on the downgradient parcel owned by Herr's. Culverted stormwater flow from Plant 1 and the parking area north of the truck garage also discharges at the endwall (**Figure 3**) located at the headwater of the UNT.

The UNT is classified as an intermittent stream according to the USGS (see **Section 3.0**). Intermittent streams do not have continuous flowing water year-round. Water level data collected from MW-11 and the drive point wells between April 6 and April 13, 2016 is presented in the following table.

Well	Screened	Depth to Water	Casing Elevation	Groundwater Elevation	Surface Elevation
	Interval	water	Elevation	Elevation	Elevation
MW-11	2 to 13 feet	0.34 feet	501.65 feet	501.31 feet	498.65 feet
DPW-1	0 to 2 feet	2.76 feet	499.03 feet	496.26 feet	497.15 feet
DPW-2	0 to 2 feet	1.86 feet	500.00 feet	498.14 feet	498.26 feet

The observed water levels indicate the depth of groundwater is 0.89 feet below grade at DPW-1 and essentially at-grade at DPW-2. Based on the greater depth of MW-11 and the higher groundwater elevation, an upward hydraulic gradient is apparent, which supports the surface water flow observed adjacent to MW-11 and DPW-2.

7.0 GROUNDWATER QUALITY

Groundwater sample analytical results (**Table 3**) for wells at the truck garage show that all of the PADEP Short List parameters for unleaded gasoline and diesel fuel except isopropylbenzene were detected at concentrations exceeding their Act 2 non-residential Statewide Health Standards in MW-3, MW-4, MW-5, MW-7 and the former supply well. SPL petroleum was observed in MW-4 during the June 25 and July 9, 2015 groundwater monitoring events. None of the PADEP Short List parameters for unleaded gasoline and diesel fuel were detected in groundwater at MW-1, MW-2, MW-6 and MW-8. Benzene and MTBE are the only parameters detected at concentrations exceeding their Act 2 non-residential Statewide Health Standards in MW-10 at the downgradient property boundary (the Act 2 point of compliance [POC]). Groundwater monitoring data collected during site characterization is shown on **Figure 5** through **Figure 12**.

Groundwater sample analytical results (**Table 3**) for the off-site wells (MW-11, MW-12 and MW-13) show that benzene and MTBE were detected at MW-11, located 150 feet downgradient of MW-10. Maximum concentrations of dissolved benzene and MTBE detected at MW-11 were 19.4 μ g/L and 137 μ g/L, respectively, and exceed their Act 2 non-residential Statewide Health Standards. To date, none of the PADEP Short List parameters for unleaded gasoline and diesel fuel have been detected at MW-12 or MW-13. Groundwater sample analytical results for parameters detected in the samples collected on April 13, 2016 from the shallow drive point wells DPW-1 and DPW-2 are presented in the table below.

Detected Parameters	DPW-1	DPW-2
Benzene	< 0.5 μg/L	13 μg/L
MTBE	2 μg/L	5 μg/L
Xylenes	< 0.5 μg/L	0.7 μg/L J

Notes:

J = Parameter not detected above the laboratory limit of quantitation.

The results indicate that off-site groundwater discharge is impacted by dissolved benzene and MTBE.

Intrinsic groundwater quality parameters monitored during low-flow purging and sampling on October 10, 2015 are provided in **Appendix F** and are summarized below.

Well	DO	ORP	рН
MW-1	5.47 mg/l	99.1 mV	6.86
MW-2	1.12 mg/l	128.4 mV	6.10
MW-3	3.21 mg/l	-151.8 mV	6.62
MW-4	4.53 mg/l	-145.2 mV	6.51
MW-5	1.51 mg/l	-51.5 mV	7.60
MW-6	6.54 mg/l	73.3 mV	6.76
MW-7	2.22 mg/l	-14.0 mV	6.75
MW-8	3.86 mg/l	98.9 mV	6.48
MW-9	1.32 mg/l	97.8 mV	6.39
MW-10	1.18 mg/l	13.0 mV	8.84

The intrinsic parameters indicate that dissolved oxygen decreases with groundwater flow along the centerline of the plume (MW-3, MW-5 and MW-10). The lowest ORP was observed in the source area (MW-3 and MW-4). This suggests that as groundwater flows from the UST systems toward downgradient areas, aerobic biodegradation (DO > 2.0 mg/l) is occurring⁷. As oxygen is depleted, anaerobic conditions (DO < 2.0 mg/l) have developed at MW-5, MW-9 and MW-10. Although MW-10 is downgradient of the source area, the plume is covered by an impervious asphalt surface, which restricts infiltration and recharge of groundwater to replenish dissolved oxygen in the subsurface.

As described in **Section 5.0**, benzene diffuses most rapidly out of SPL and partitions into groundwater, followed by toluene, ethylbenzene and xylenes. **Table 3** shows that the highest dissolved benzene concentrations in groundwater typically occur at MW-7 and MW-10. Lower detected dissolved benzene concentrations were observed at MW-3 nearest the UST system area. The highest dissolved toluene concentrations were observed at MW-3, and with lower concentrations observed at MW-10. Toluene is known to have the highest biodegradation rate of the BTEX compounds, and coupled with evidence of anaerobic conditions along the centerline of the plume, may be evidence of natural attenuation. The highest dissolved ethylbenzene and xylenes concentrations were observed at MW-4 and MW-7.

Maximum dissolved concentrations of BTEX in water were estimated based on the SPL fingerprint analysis (see **Section 4.4**) and the reported fuel-water partition coefficient (K_{fw}) for each substance⁸. The fuel-water partition coefficient of a substance is related to the solubility in water using the equation $K_{fw} = C_f / C_w$, where C_f is the concentration in fuel and C_w is the concentration in water. Using published values of K_{fw} for a typical gasoline blend, the estimated BTEX concentrations in water are provided in the following table.

⁷ 2004, <u>How To Evaluate Alternative Cleanup Technologies For Underground Storage Tanks: A Guide For Corrective Action Plan Reviewers</u>, United States Environmental Protection Agency, Document No. EPA 510-R-04-002.

 $^{^8}$ L. Bruce, T. Miller and B. Hockman, 1991, <u>Solubility Versus Equilibrium Saturation of Gasoline Compounds: A Method to Estimate Fuel/Water Partition Coefficient Using Solubility or K_{oc}, Amoco Corporation, Tulsa, Oklahoma.</u>

Substance	Concentration in SPL (C _f)	Fuel/Water Partition Coefficient (K _{fw})	Estimated Concentration in Water (Cw)	Maximum Observed Concentration	Location of Maximum Observed Concentration
Benzene	600,000 μg/L	248	2,419 μg/L	2,770 μg/L	MW-7
Toluene	22,000,000 μg/L	1,062	20,715 μg/L	17,000 μg/L	MW-3
Ethylbenzene	12,000,000 μg/L	3,488	3,440 μg/L	2,820 μg/L	MW-4
Xylenes	59,000,000 μg/L	3,859	15,289 μg/L	10,300 μg/L	MW-7
MTBE	< 10,000 ug/L	15.5	< 645 μg/L	137 μg/L	MW-11

The original composition of the gasoline released at the truck garage and the fraction of each substance in the released gasoline are unknown; however, the maximum observed concentrations of BTEX that occur within the source area compare closely to the estimated concentrations. Although MTBE was not detected in the SPL, its concentration within the source area is uncertain. MTBE was detected in MW-5 at a maximum concentration of 21 μ g/L near the source area, and at a concentration of 137 μ g/L at MW-11, located 320 feet downgradient of MW-4 where SPL was observed.

8.0 SOIL GAS SAMPLING AND ANALYSIS

Soil vapor intrusion to non-residential indoor air was evaluated in accordance with the PADEP guidance document titled *Vapor Intrusion into Buildings from Groundwater and Soil under the Act 2 Statewide Health Standard*. Soil impacted by the release is within the zone of groundwater saturation, and compounds of potential indoor air concern (COPIACS) are present in groundwater (see **Table 3**). There is less than five feet of soil-like material present. Therefore, the Site cannot "screen out" of vapor intrusion. As an alternative, an assessment was conducted inside the truck garage through the collection and analysis of soil gas samples.

On February 29, 2016, RETTEW installed a permanent, sub-slab soil gas sampling implant (SG-1) below the truck garage as shown on **Figure 15**. SG-1 was installed below the truck garage within the area of maximum observed impacts of unleaded gasoline and diesel to soil and groundwater (near SB-7 and MW-4). The truck garage is a slab-on-grade structure. The exterior area surrounding the truck garage is paved with impervious asphalt cover with minimal air permeability. No preferential pathways were observed at the truck garage.

SG-1 was installed using direct-push Geoprobe® methodology to a depth of 3.5 feet below grade based on observed water levels at MW-4. A smooth, eight-inch diameter core was removed from the building slab prior to installation. The slab was observed to be eight inches thick with an additional four inches of crushed stone subbase. A six-inch stainless steel screened implant, manufactured by Geoprobe®, was advanced 2.5 feet into native soil with associated Teflon tubing and attached to an anchor point used during installation when the target depth was reached. As the drilling tools were removed from the borehole, the implant and 0.275-inch inner-diameter Teflon tubing remained firmly anchored at the bottom. The annular space around the stainless steel screen was packed with silica sand to a depth of two feet below grade, and capped with a granular bentonite seal above the subbase to prevent atmospheric short-circuiting during soil vapor sample collection. Construction of the soil vapor implant was completed with a flush mount manhole set in concrete. A schematic of SG-1 is presented in **Appendix C**.

RETTEW attempted to collect a soil gas sample at SG-1 on March 1, 2016; however, the sample point became vacuum-locked due to the presence of shallow water and a sample could not be collected. For this reason, a sub-slab soil gas sample port (SG-2) was installed on March 25, 2016 by using a hammer drill

to advance a 0.375-inch hole through the slab and subbase material into native soil at a depth of 13 inches. The upper two inches of the hole was over-drilled to one-inch diameter. Swagelok™ stainless steel fittings were attached to 0.250-inch outer-diameter 316 stainless steel tubing and inserted into the 0.375-inch hole to a depth of 12.5 inches. The fittings and tubing were sealed with Quickrete™ sealant and allowed to cure for two hours. SG-2 was completed with a threaded plug flush to the slab floor. A schematic of SG-2 is presented in **Appendix C**.

Two rounds of sub-slab soil gas sampling were conducted at SG-2 on March 25 and April 13, 2016 using evacuated 6 liter (L) stainless steel Summa canisters provided by LLE, a PADEP-certified laboratory, connected directly to the stainless steel sub-slab tubing with a one-hour regulator set at a sampling flow rate of 83 mL/min. Prior to each sampling event, a shut-in test was performed to verify the airtightness of the compression fittings by applying a vacuum to the sample train tubing between SG-2 and the Summa canister. During the shut-in test, valves to SG-2 and Summa canister are closed and air is removed (using a 60 ml syringe) from the sampling train, inducing a vacuum of 15 inches of mercury. No changes in vacuum were observed for two minutes. The sampling train was then purged a minimum of three volumes of air through SG-2 and connecting tubing with a 60 ml syringe. The purge volume (V) = $3.0\pi r2h$, where r is the inner radius of the probe and connecting tubing, and h is the length of the implant and the connecting tubing. The soil vapor samples were submitted to LLE for analysis of PADEP Short List petroleum products for unleaded gasoline and diesel fuel by EPA Method TO-15 following standard chain-of-custody protocols.

The laboratory analytical results indicated that none of the PADEP Short List petroleum products for unleaded gasoline and diesel fuel were detected in the sample collected on March 25, 2016. Toluene and xylenes were the only parameters detected in the soil gas sample collected on April 13, 2016; however, both parameters were detected at concentrations below the laboratory limit of quantitation. Concentrations of toluene and total xylenes were estimated to be 0.98 micrograms per cubic meter (ug/m³), or 0.61 parts per billion volume (ppbv), and 2.7 ug/m³ (or 0.64 ppbv), respectively. Soil gas sample laboratory analytical reports are attached in **Appendix K**.

The PADEP has set Statewide Health Standard MSCs for unleaded gasoline and diesel fuel parameters in indoor air. The MSCs for soil gas are calculated as 100x the MSC for indoor air and are compared to the soil gas sample results below.

Parameter	MSCs for Non- Residential Indoor Air	3/25/2016 Sample Results	4/13/2016 Sample Results
Benzene	0.011	< 0.00064	< 0.00064
Cumene	1.1	< 0.00098	< 0.00098
Ethylbenzene	0.073	< 0.00087	< 0.00087
MTBE	0.31	< 0.00072	< 0.00072
Naphthalene	0.0088	< 0.00260	< 0.00260
Toluene	1.2	< 0.00075	0.00098 J
1,2,4-TMB	0.017	< 0.00098	< 0.00098
1,3,5-TMB	0.017	< 0.00098	< 0.00098
Total Xylenes	0.3	< 0.00174	0.00270 J

Notes:

All units in milligrams per cubic meter (mg/m³).

MSCs for Soil Gas MSC_{SG} = MSC_{IAQ}/0.01 transfer factor.

J = Parameter not detected above the laboratory limit of quantitation.

Detected concentrations of toluene and total xylenes are below their respective non-residential soil gas MSCs of 120 mg/m³ and 30 mg/m³. Based on the soil vapor sample analytical results, the non-residential vapor intrusion pathway is not a concern at the truck garage in accordance with the Act 2 vapor intrusion guidance.

9.0 SEDIMENT AND SURFACE WATER SAMPLING AND ANALYSIS

Sediment and surface water samples were collected at various points in the UNT to North East Creek to determine the extent of petroleum impacts resulting from discharging groundwater. Two sediment samples (Sed-1 and Sed-2) and two surface water samples (Stream-1 and Stream-2) were collected on February 22, 2016 as shown on **Figure 15** and **Figure 16**. Sampling was initiated at the downstream location (Sed-2 and Stream-2) and proceeded toward the upstream location (Sed-1 and Stream-1) to preclude disturbance of the stream and the potential sample interference. Sediment samples were collected at a depth of approximately six inches below the stream bed using a hand auger and placed directly into laboratory bottleware. The hand auger was decontaminated with an Alconox™ solution and rinsed with clean water between sampling locations. Surface water samples were collected with a decontaminated 500 ml plastic bottle, which was used to fill laboratory bottleware. All samples were stored in a cooler with ice and delivered to LLE for analysis of the PADEP Short List parameters for unleaded gasoline and diesel fuel. The sediment and surface water sample analytical reports are provided in **Appendix L** for February 22, 2016, and detected parameters are summarized in the following table.

Analytical Parameter	Stream-1	Stream-2	Sed-1	Sed-2
Benzene	19 μg/L	1 μg/L	5 μg/kg	< 0.5 μg/kg
MTBE	25 μg/L	12 μg/L	160 μg/kg	< 0.5 μg/kg

The results show petroleum impacts to surface water and sediment at the upstream sampling locations Stream-1 and Sed-1. Petroleum impacts were not detected in the downstream sample Sed-2. Benzene and MTBE were detected in surface water in the downstream sample Stream-2, but at lower concentrations than Stream-1. The lower dissolved petroleum concentrations at Stream-2 are likely due to dilution and mixing with discharging groundwater as surface water flows downstream.

An additional set of sediment samples (Sed-3 and Sed-4), surface water samples (Stream-1, Stream-3 and Stream-4) and a stormwater sample (Stormwater-1) were collected on April 6, 2016 to delineate petroleum impacts to surface water and sediment as shown on **Figure 18**. Sampling was initiated at the downstream location (Stream-1) and proceeded toward the first upstream location (Sed-3 and Stream-3 adjacent to MW-11), and then to the second upstream location (Sed-4 and Stream-4 adjacent to DPW-2) to preclude potential sample interference. The stormwater sample was collected from within the endwall culvert piping prior to discharging to the UNT. All samples were collected, transported and analyzed using the same methodology as the February 22, 2016 sampling event described above. The sample analytical reports are provided in **Appendix L** for April 6, 2016 and detected parameters in surface water are summarized in the following table.

Analytical Parameter	Stormwater	Stream-1	Stream-3	Stream-4
Benzene	< 0.5 μg/L	14 μg/L	< 0.5 μg/L	< 0.5 μg/L
MTBE	< 0.5 μg/L	19 μg/L	0.7 μg/L	< 0.5 μg/L

The surface water sample analytical results show that dissolved benzene and MTBE are discharging with groundwater to surface water between the endwall and Stream-4, adjacent to DPW-2. No dissolved petroleum substances were detected in surface water from upstream areas (i.e., stormwater flow or

surface water upstream of Stream-3). The detected parameters in sediment are summarized in the following table.

Analytical Parameter	Sed-1	Sed-2	Sed-3	Sed-4
Benzene	5 μg/kg	< 0.5 μg/kg	< 2 μg/kg	38 μg/kg
MTBE	160 μg/kg	< 0.5 μg/kg	< 2 μg/kg	5 μg/kg
Isopropylbenzene	< 0.9 μg/kg	< 1 μg/kg	< 3 μg/kg	6 μg/kg

The sediment impacts are not likely the result of source erosion, since source soils are covered by paved surfaces and the truck garage. In addition, benzene and MTBE partition into water easily and have a low affinity to sorb to soil; therefore, these detections in sediment are probably more indicative of petroleum impacts to pore water resulting from discharging groundwater.

10.0 FATE AND TRANSPORT ANALYSIS

Fate and transport analysis was performed for detected substances in groundwater (**Table 3**) that exceeded the Statewide Health Standards at monitoring wells MW-3, MW-4, MW-5, MW-7 and MW-10. Groundwater sample analytical data was plotted over time for each well. Concentration trends over time were analyzed to determine if concentrations are increasing, decreasing, or stable. A trend line was fitted to each plot and an R-squared value was determined to describe the trend variation as "high" (R-squared value ranging from 0 to 30%), "moderate" (R-squared value ranging from 30% to 60%), or "low" (R-squared value ranging from 60% to 100%). Concentration versus time plots are presented in **Appendix M**. The findings of the trend analysis are summarized in **Table 4**.

The concentration versus time plots indicate a decreasing trend at MW-3 nearest the UST systems. Trends are also generally decreasing at MW-5, although the trends have high variation. Trends are generally decreasing at MW-4 with the exception of benzene and 1,3,5-TMB; however, the decreasing trends have high variation. Increasing trends are generally noted at MW-7, although there is high variation in the trends. In particular, benzene concentrations are increasing at MW-4 and MW-7, and migrating downgradient with groundwater flow.

Trends could not be evaluated at MW-10 for most of the substances analyzed in groundwater due to nondetect data and/or insufficient data; however, benzene and MTBE have been detected at MW-10 during each of the four groundwater sampling events since MW-10 was installed. Dissolved benzene and MTBE concentrations are increasing at MW-10, and both substances have been detected above their respective Statewide Health Standards during each sampling event.

The concentration versus time plots show high variation in data from source area wells MW-4 and MW-5. This could indicate that trends are somewhat stable, or that a weak decreasing trend is occurring. Increasing trends are apparent at MW-7, and MW-10 at the POC, suggesting that the plume is expanding downgradient. This is particularly true for benzene. Due to the presence of SPL at MW-4 during site characterization, and benzene detected in groundwater at concentrations exceeding estimated concentrations based on SPL fingerprint analysis (see **Section 7.0**), there is little evidence of source decay in the area of MW-4 and MW-7. Further groundwater monitoring is required to verify trends over time.

RETTEW evaluated the migration of dissolved benzene and MTBE using the PADEP Quick Domenico (QD) model spreadsheet following the methodologies presented in the PADEP guidance document titled *User's Manual for the Quick Domenico Groundwater Fate and Transport Model*. The QD model was selected based on the presence of an unconsolidated (saprolite) aquifer, organic petroleum contaminants and a

non-decaying source. The QD model was used to estimate steady state concentrations of benzene and MTBE at the point of groundwater discharge (MW-11). The findings will be used to support subsequent modelling to evaluate the loading of the benzene and MTBE plumes to surface water (see **Section 11.0**).

A systematic approach was used to calibrate the QD model by matching the model to actual field data along the centerline of the plume. A range of selected model calibration parameters were used in various combinations to identify the model(s) that closely approximates observed concentrations. This approach utilized nine combinations of parameters, referred to as Model 1 through Model 9. The QD model input parameters and their sources used in the calibration process are described below.

Parameter	Symbol	Value	Comments
Source Concentration	C _o	2.419 mg/L	Estimated benzene concentration in SPL
Source Concentration	C _o	0.200 mg/L	Estimated MTBE concentration in SPL
Longitudinal Dispersivity	$\alpha_{\scriptscriptstyle X}$	3 to 150 feet	Variable calibration parameter scaled to plume
Transverse Dispersivity	α_y	α _× /10	Estimate
Vertical Dispersivity	α_z	0.001 foot	Minimized for 2-D transport
Source Width	γ	40 feet	Estimated SPL plume width
Source Depth	Ζ	10 feet	Site characterization data
Hydraulic Conductivity	К	0.03 to 3.1 ft/day	Site characterization data, calibration parameter
Hydraulic Gradient	i	0.018 ft/ft	Groundwater monitoring data
Effective Porosity	ne	0.08	Published value for Wissahickon Formation
Density	ρ	$1.788 g/cm^3$	Site characterization data
Organic Carbon Coefficient	Koc	58 L/kg	Chapter 25 Table VA for Benzene
Organic Carbon Coefficient	Koc	12 L/kg	Chapter 25 Table VA for MTBE
Fraction Organic Carbon	f_{oc}	0.0118	Site characterization data
Degradation Coefficient	λ	0.00096 day ⁻¹	Chapter 25 Table VA initial value for Benzene
Degradation Coefficient	λ	0.0019 day ⁻¹	Chapter 25 Table VA initial value for MTBE

Notes:

Shaded parameters are used as model calibration variables.

The source is considered to be the extent of SPL. The estimated benzene concentration in groundwater based on SPL fingerprint analysis (2,419 μ g/L, see **Section 7.0**) is slightly less than the maximum benzene concentrations detected in MW-5 and MW-7. This suggests that the SPL plume surrounds MW-4 and extends outward toward MW-5, MW-7 and the former supply well as shown on **Figure 17**. The average benzene concentrations in MW-4, MW-5 and MW-7 are below the estimated concentration by at least a factor of 1.7. For this reason, and the observed increasing benzene trends in MW-4, MW-7 and MW-10, the estimated benzene concentration of 2.419 mg/L was used as the source concentration.

MTBE has been mostly non-detect in groundwater within the source area, with a maximum concentration of 21 μ g/L at MW-5. MTBE was detected in soil at SB-18 within the source area at a depth of 10 feet and a concentration of 260 μ g/kg. An initial source concentration of 200 μ g/L (0.200 μ g/L) was used based on the observed occurrence of MTBE in saturated soil and the estimated concentration in groundwater based on SPL fingerprint analysis (< 645 μ g/L).

The range of values used for longitudinal dispersity were scaled with the distance to the surface water receptor within the plume at a distance of 300 feet measured from the source to MW-11 (i.e., the point of groundwater discharge) as shown on **Figure 17**. An initial value of α_x was set equal to 10 percent of the distance from the source to MW-11 (30 feet). A range of values from one-tenth (0.3 feet) to five times (150 feet) the initial value was used to represent an order of magnitude uncertainty factor. It is noted that calibration well MW-10 is located along the plume centerline 140 feet from the source.

The range of hydraulic conductivity (*K*) values used was based on the calculated values from the aquifer testing described in **Section 4.5**. The average calculated hydraulic conductivity of 0.31 ft/day was varied by an order of magnitude to produce a range of values from 0.031 ft/day to 3.1 ft/day. The average porosity of saprolite developed from rocks of the Wissahickon Formation is reported to be about 48 percent, and estimates of the effective porosity of the saturated decomposed saprolite in the Piedmont Upland range from eight percent to 10 percent⁹.

The time used in the calibration models was based on the number of elapsed days (6,888) between the discovery of contamination (May 28, 1997) and the most recent groundwater monitoring event (April 6, 2016). The model domain was set to 300 feet, equal to the distance to MW-11. Average centerline concentrations for MW-10 (140 feet) and MW-11 (300 feet) were used to calibrate the models. The QD model output is attached in **Appendix N**. Calibration data and the resulting degradation coefficients are summarized in the following table.

Model No.	K (ft/day)	α _x (ft)	Benzene λ (day¹)	MTBE λ (day ⁻¹)	Comment
1	0.31	30	0	0	Baseline model calibrated to MW-10
2	0.31	3	0	0	
3	0.31	150	0	0	
4	0.031	30	0	0	
5	0.031	3	0	0	
6	0.031	150	0	0	
7	3.1	30	0	0	
8	3.1	3	0.00006	0.00056	Benzene is not at steady state
9	3.1	150	0	0	

Model 8 is the only calibration model that achieves a centerline concentration for benzene and MTBE at MW-10 with some degree of degradation. All other calibration models result in centerline concentrations below observed concentrations with no degradation. In addition, Model 8 is the only calibration model that is not at steady state for benzene. For this reason, Model 8 was selected for further calibration.

Model 8 was further calibrated for benzene and MTBE by adjusting the hydraulic conductivity downward to closely approximate the plume centerline concentrations at MW-10 and MW-11. During the final step in the calibration process, the source concentration of MTBE was adjusted due to uncertainty to more closely match centerline concentrations. An MTBE source concentration of 0.16 mg/L results in the best match. The recalibrated Model 8 is referred to as Model 10, with calibration data summarized in the following table.

Model No.	K (ft/day)	α _x (ft)	Benzene λ (day ⁻¹)	MTBE λ (day ⁻¹)	Comment
10	2.46	3	0.00006	0.00056	Calibrated to centerline at MW-10 and MW-11

Model 10 results indicate that the benzene plume has not reached steady state conditions, whereas the MTBE plume has reached steady state conditions. A predictive model was developed by increasing the time parameter in Model 10 to incrementally evaluate steady state conditions. Predictive model plots are

⁹ D.J. Low, D.J. Hippe and D. Yannacci, 2002, <u>Geohydrology of Southeastern Pennsylvania</u>, United States Geological Survey, Water-Resources Investigations Report 00-4166.

provided for benzene and MTBE at various times in **Appendix N** and are summarized in the following table.

Time	Benzene Concentration at MW-11	MTBE Concentration at MW-11	Comment
7,670 days	218 μg/L	79 μg/L	21-year projection (5/28/2018)
10,958 days	1,167 μg/L	79 μg/L	30-year projection (5/29/2027)
11,689 days	1,210 μg/L	79 μg/L	Benzene at steady state (5/29/2029)
14,000 days	1,233 μg/L	79 μg/L	38-year projection (9/26/2035)

Benzene concentrations at MW-11 are expected to increase to over 200 µg/L by May 28, 2018, and continue to increase until the benzene plume essentially reaches steady state during 2029. The steady state benzene plume is not expected to exceed the Statewide Health Standard (5 µg/L) beyond a distance of 610 feet and should not be detected in groundwater at MW-12, located 700 feet downgradient of the source. The MTBE plume has reached steady state, and MTBE concentrations are not expected to increase at MW-11. Additional groundwater monitoring will be required to verify predicted QD model trends.

11.0 SURFACE WATER IMPACTS FROM GROUNDWATER DISCHARGE

RETTEW evaluated impacts to surface water from diffuse groundwater flow using the PADEP's SWLOAD5 model spreadsheet. The SWLOAD5 model was used to develop average concentrations of benzene and MTBE in a cross-sectional flow of the plume discharging to surface water, and to estimate the mass loading of benzene and MTBE to surface water under steady state conditions. The SWLOAD5 output was then used to determine applicable surface water quality standards for benzene and MTBE using the PADEP's PENTOXSD model.

The selection of the SWLOAD5 model is based on the same assumptions as the QD model (i.e., an unconsolidated [saprolite] aquifer and organic petroleum contaminants). The SWLOAD5 model input parameters and their sources are generally the same as the QD model to describe two dimensional flow. The sources of the SWLOAD5 input parameters are, for the most part, taken from the calibrated QD models described in **Section 10**. Key parameter input differences between the models pertain to time, vertical dispersivity, and the "edge criterion" established for each substance at the edge of the plume as described in the *Act 2 Technical Guidance Manual* (TGM), Section IV.A.3. These SWLOAD5 input parameters are described below.

Parameter	Symbol	Value	Comments
Time	t	1 x 10 ⁹⁹ days	Assures model output is at steady state
Vertical Dispersivity	α_z	0.00001 foot	Variable calibration parameter
Benzene Plume View Width	None	112.1 feet	Variable calibration parameter
Benzene Plume View Depth	None	10.2 feet	Variable calibration parameter
Benzene Edge Criterion	None	5 μg/L	Per Table IV-1 of the TGM
MTBE Plume View Width	None	60 feet	Variable calibration parameter
MTBE Plume View Depth	None	10.1 feet	Variable calibration parameter
MTBE Edge Criterion	None	20 μg/L	Per Table IV-1 of the TGM

A vertical dispersivity value of 0.00001 was used to match the edge criterion concentration for each substance at a plume depth of 10 feet, since the entire source thickness and plume depth is assumed to discharge to surface water. The plume view width was adjusted to match the edge criterion

concentrations for each substance at the lateral bounds of each plume. The SWLOAD5 output is attached in **Appendix O** and summarized in the following table.

Substance	Highest Modeled Concentration	Average Concentration	Plume Flow
Benzene	1,233.6 μg/L	421.2 μg/L	0.00059 cfs
MTBE	78.9 μg/L	47.9 μg/L	0.00031 cfs

Notes:

cfs = Cubic feet per second

The PENTOXSD surface water mixing model was then used to calculate Water Quality Based Effluent Limits (WQBELs) for the portions of the benzene and MTBE plumes that exceeded their edge criterion based on the SWLOAD5 model output. Specifically, the average groundwater concentrations and plume flow rates noted above were used as PENTOXSD input parameters. The analysis was performed for a reach of the UNT to North East Creek shown on **Figure 18**, from Node 1, located at the Stream-1 sampling point, to Node 2, located at the confluence of the UNT with North East Creek. Hydrodynamic input parameters used in the PENTOXSD model are listed in the following table.

Parameter	Node 1	Node 2	Source
River Mile Index	1.44 mi	0.0 mi	GoogleEarth measurement
Elevation	495 ft	390 ft	GoogleEarth measurement
Drainage Area	0.04 mi ²	0.98 mi ²	StreamStats
Qh Flow	0.0083 cfs	0.29 cfs	StreamStats
Q7-10Flow	0.0012 cfs	0.0059 cfs	StreamStats
Qh Width	3.3 ft	6 ft	GoogleEarth measurement
Q7-10 Width	1.5 ft	3 ft	Estimated (approx. ½ Qh width)

The PENTOXSD output and the StreamStats datasheets used in the model are attached in **Appendix P**. The waste load allocations (WLAs) calculated by PENTOXSD are provided in the following table.

Water Quality Criteria	Benzene WLAs	MTBE WLAs
Acute Fish Criterion (AFC)	14,351 μg/L	NA
Chronic Fish Criterion (CFC)	2,915 μg/L	NA
Threshold Human Health (THH)	NA	448 μg/L
Cancer Risk Level (CRL)	185 μg/L	NA
Governing Criteria	185 μg/L	47.9 μg/L

Notes:

NA = Not applicable

The PENTOXSD model selects the most restrictive WLA as the Governing Criterion, which is the applicable water quality criteria. The PENTOXSD model results indicate that the maximum average benzene concentration at steady state (421.2 μ g/L) exceeds the Governing Criterion (CRL - 185 μ g/L); therefore, attainment of surface water criteria has not been obtained for benzene. The maximum average MTBE concentration at steady state (47.9 μ g/L) is more restrictive than any of the calculated WLAs; therefore, attainment of surface water criteria is successful for MTBE.

12.0 EXPOSURE PATHWAY EVALUATION

The findings of site characterization were used to conduct an evaluation of present and future exposure pathways to aid in the selection of a remediation standard. Potential exposure pathways are described in the following sections.

12.1 DIRECT CONTACT

None of the PADEP Short List Petroleum Products for diesel and unleaded gasoline detected in soil during site characterization exceeded the non-residential Statewide Health Standard Direct Contact MSCs (see **Table 1** and **Table 2**). Based on these results, the exposure pathway of potential direct contact with petroleum impacted soil is acceptable.

12.2 INGESTION – GROUNDWATER AND SURFACE WATER

According to the West Nottingham Township Public Works Department, the area surrounding the property is not provided with a public water supply system. Local water supplies are provided through the use of private water wells. A search of available well records using the Pennsylvania Ground Water Information System (PaGWIS) revealed 13 existing private water wells within one-quarter mile of the Site. Six of the wells identified are owned by Herr's and are no longer in service. The remaining seven wells are privately owned and located upgradient of the truck garage to the north and west. The PaGWIS database information is attached in **Appendix Q**.

According to Chester County parcel data, Herr's owns and controls all properties south and east of the truck garage, from the property boundary to Stoney Lane and east of Stoney Lane, approximately 3,000 feet downgradient (**Figure 2**). The results of fate and transport analysis (**Section 10.0**) show that no groundwater impacts above the applicable MSCs are expected downgradient of MW-12. Based on these findings, the release does not pose an immediate threat to private water supply wells.

The surface water ingestion pathway was evaluated by performing a review of the eMapPA¹⁰ database for public water supplies and surface water intakes downstream of the property in North East Creek. The eMapPA database did not reveal the presence of any surface water withdrawals in North East Creek between the property and the Maryland state line, located 2.5 miles downstream.

12.3 INHALATION - VAPOR INTRUSION

Vapor intrusion to non-residential indoor air from groundwater was evaluated for the Site in accordance with the PADEP guidance document titled *Vapor Intrusion into Buildings from Groundwater and Soil under the Act 2 Statewide Health Standard*. As described in **Section 8.0**, detected concentrations of toluene and total xylenes in sub-slab soil gas samples collected at the truck garage are below their respective non-residential soil gas MSCs of 120 mg/m³ and 30 mg/m³. No other parameters were detected in the soil gas samples. Based on the soil vapor sample analytical results, the vapor intrusion pathway is incomplete at the truck garage in accordance with the Act 2 vapor intrusion guidance.

12.4 EVALUATION OF ECOLOGICAL RECEPTORS

Groundwater quality does not meet the Statewide Health Standard MSCs for benzene and MTBE at the POC (parcel boundary). Benzene and MTBE have been detected in surface water and sediment samples in an area of groundwater discharge downgradient of the truck garage on an adjacent parcel owned by

Pennsylvania Department of Environmental Protection, eMapPA, Available online at http://www.depgis.state.pa.us/emappa/, accessed [May 13, 2016].

Herr's. The presence of dissolved benzene and MTBE in surface water and sediment samples warranted an evaluation of ecological receptors identified in 25 PA Code Chapter 250.311, which was performed as described in **Section 13.0**.

13.0 ECOLOGICAL RISK ASSESSMENT

A site-specific ecological risk assessment was performed in accordance with the process outlined in TGM Section IV.H and the Statewide Ecological Screening Process to evaluate eco-exposure to the media (groundwater) and substances (benzene and MTBE) addressed under the Site-Specific Standard. The assessment focused on the field identification of wetlands and habitat types present in the area of plume discharge, and an evaluation of the overall health and ecological value of the wetlands and habitats in reference areas adjacent to the area of plume discharge. A search of the Pennsylvania Natural Diversity Index (PNDI) was also conducted for species and habitats of concern within 1,000 feet. A summary memo of the ecological risk assessment is included as **Appendix R**.

The findings of the ecological risk assessment indicated that there is no substantial ecological risk associated with the release based on the following:

- No species of concern were identified.
- No evidence of stressed, discolored or deformed vegetation was observed.
- Benzene and MTBE are not known to bioaccumulate and are not known to have an adverse effect on the food chain or present a food-chain exposure hazard.
- The wetland in the area of plume discharge compared closely to the reference wetland with respect to the abundance and diversity of species present. No substantial ecological impacts were identified.
- The AFC and CFC surface water quality standards (see Section 11.0) are met and are protective
 of aquatic ecological receptors.
- Published sediment screening values indicate that the potential adverse effect of the release on terrestrial ecological receptors is low.
- No additional ecological risk assessment is warranted.

Three wetland areas were identified that contain suitable bog turtle habitat within the study area. It is noted that bog turtles were not observed during the ecological risk assessment. Potential impacts of remediation on wetlands and bog turtle habitat will be considered during the development of a Remedial Action Plan.

14.0 CONCEPTUAL SITE MODEL

A release of petroleum was discovered at the truck garage during UST system closure activities in May 1997. During UST closure, holes were noted in two USTs containing diesel fuel and unleaded gasoline. Approximately 1,200 tons of petroleum impacted soil and fill material were removed and disposed; however, complete source removal was not feasible due to space constraints and concerns regarding the structural integrity of the truck garage. Although water was observed in the UST excavation, it was not characterized as groundwater. A UST Closure Report was prepared in July 1997, which indicated concentrations of MTBE exceeding the unsaturated soil standard/action level in three soil samples. A new UST system was installed in the excavation following UST closure activities, and no further assessment or remediation was conducted at that time.

Site characterization performed between February 2015 and April 2016 by RETTEW at the truck garage has delineated the extent of soil and groundwater impacts resulting from the 1997 release as shown on **Figure 17**. Some of the key findings of site characterization are summarized below.

- The truck garage is underlain by micaceous schist bedrock and approximately 64 feet of saprolite comprised of micaceous silt and sand that forms an unconsolidated, unconfined aquifer.
- The area of maximum soil impacts (benzene concentrations greater than 500 μg/kg) is delineated and located directly downgradient of the UST system at depths ranging from three to 13 feet below grade.
 The aerial distribution of BTEX in soil is reflective of the aqueous solubility of each substance.
- Soil impacted by the release is below the seasonally high water table (two feet below grade) and within the zone of groundwater saturation.
- SPL has been observed in MW-4 within the area of maximum soil impacts. The occurrence of SPL at MW-4 coincides with the highest concentrations of BTEX in soil (SB-7). The SPL thickness is low (0.02 feet), and the recoverability of the SPL is low. Fingerprint analysis characterized the SPL as unweathered gasoline.
- All of the substances monitored in groundwater (except isopropylbenzene) have been detected at
 concentrations exceeding their Act 2 non-residential Statewide Health Standards in groundwater.
 Groundwater quality meets the Statewide Health Standard MSCs at the POC (downgradient property
 boundary) for all of the PADEP Short List Petroleum Products for diesel and unleaded gasoline except
 benzene and MTBE.
- Based on local topography, regional drainage patterns and interpreted fracture traces (Figure 4), regional groundwater is expected to flow to the east and southeast across the property toward the UNT to North East Creek, located 150 feet east of the property boundary.
- Groundwater discharges to the UNT downgradient of the property on an adjacent, separate parcel owned by Herr Foods, Inc. Discharging groundwater also supports a wetland, which forms the headwater to the UNT to North East Creek.
- Benzene and MTBE have been detected above Statewide Health Standard MSCs in groundwater at the point of groundwater discharge (MW-11).
- Benzene and MTBE have been detected in surface water and sediment in the northern portion of the wetland area.

The property obtains its water supply from an off-site groundwater source owned and operated by Herr's located 3,100 feet downgradient of the truck garage. Raw water sample analytical results indicated no detectable concentrations of diesel or gasoline parameters in the water supply. The area surrounding the property obtains domestic water supplies from water wells. There are no downgradient water supplies threatened by the release, and Herr's owns and controls land downgradient of the property.

Fate and transport analysis shows that the plume is not stable for benzene in groundwater. The benzene plume is expanding and is not expected to reach steady state for 13 years. The MTBE plume is currently at steady state. Groundwater monitoring data shows that there is some evidence of natural attenuation and degradation of petroleum substances in groundwater; however, fate and transport modelling of benzene and MTBE suggests that degradation rates are low.

Fate and transport analysis also shows that surface water will continue to be impacted by dissolved benzene and MTBE into the future. Steady state discharge of MTBE is not expected to exceed applicable water quality criteria; however, steady state discharge of benzene is expected to exceed the calculated Cancer Risk Level (CRL) water quality criteria for the UNT to North East Creek. Steady state discharge of benzene is expected to meet the calculated Acute Fish Criteria (AFC) and Chronic Fish Criteria (CFC) water

quality criteria for fish and aquatic life in the UNT to North East Creek. A search of the eMapPA database did not reveal the presence of any public water supplies or surface water withdrawals in North East Creek between the property and the Maryland state line, located 2.5 miles downstream. An ecological risk assessment of the area of plume discharge indicated that no species of concern were identified within the study area, no evidence of stressed vegetation was observed, and no substantial ecological impacts were identified.

15.0 REMEDIATION STANDARD SELECTION

Per Act 2, the extent of petroleum impacts resulting from the release within the property boundaries, and all areas in close proximity to the impacts necessary for the implementation of remediation action, is defined as the "Site". At the truck garage, the Site includes the area defined by UST system, the benzene plume in groundwater, and the UNT to North East Creek as shown on **Figure 17**. The Site represents the area proposed for remediation and attainment of an Act 2 standard.

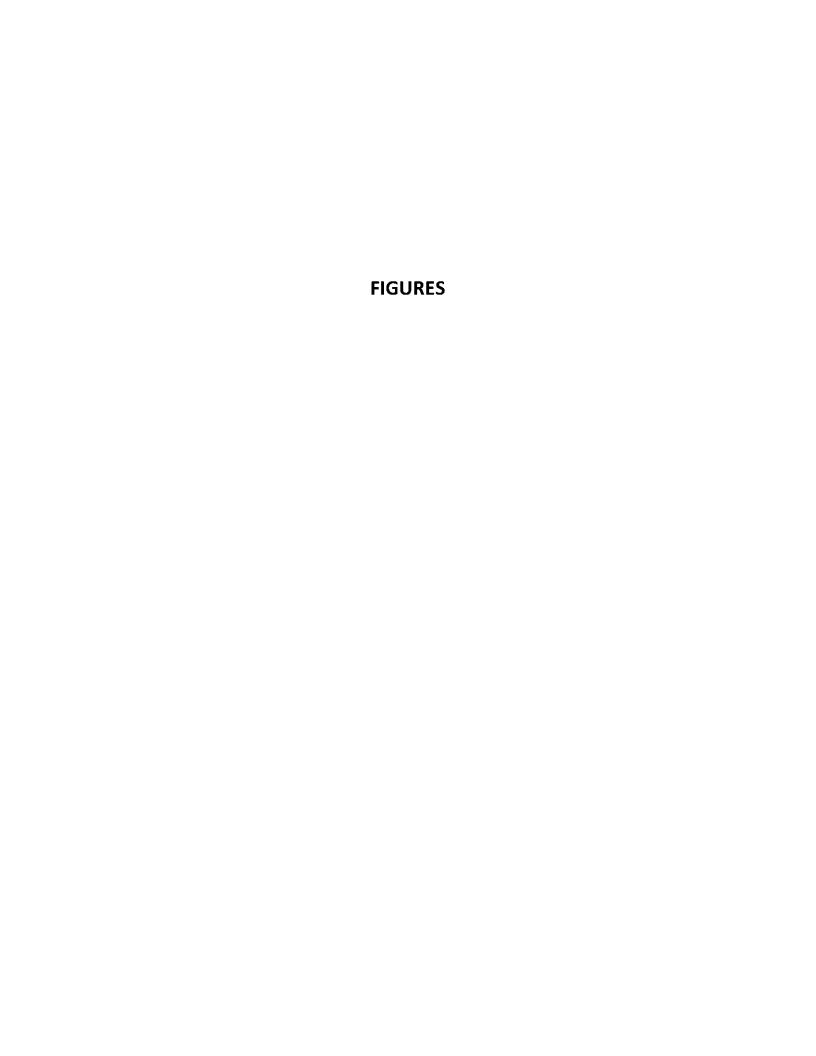
Petroleum impacted soil is present below the seasonally high water table (i.e., soil in the zone of groundwater saturation). Because petroleum impacted soil will continue to leach to groundwater, remediation will focus on groundwater quality; therefore, Herr's proposes to attain the Act 2 Site-Specific Standard for groundwater. The following actions are proposed to demonstrate attainment of the Site-Specific Standard for groundwater.

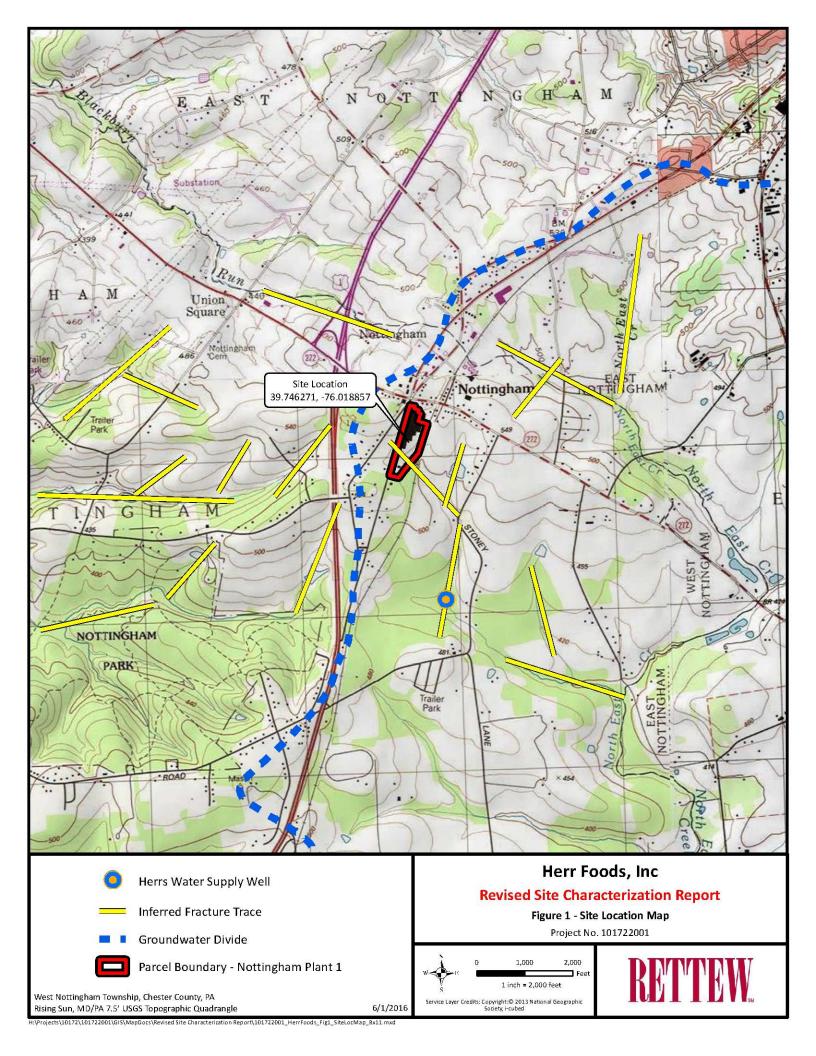
- Remediation of groundwater at the source to reduce dissolved benzene in groundwater to concentrations below the CRL WLA (185 μ g/L) surface water quality criteria prior to discharge to surface water.
- Revised fate and transport analysis to demonstrate that the CRL for benzene in surface water will be met in the future.
- A post-remedial care plan that includes the following:
 - Groundwater monitoring to verify that the CRL will be met;
 - An activity use restriction to prohibit the use of groundwater at the Site and eliminate potential human exposure to the release;
 - A land use restriction to prohibit future residential use; and
 - An activity use restriction requiring worker health and safety provisions and waste handling protocols during future disturbance of the Site to eliminate potential human exposure to the release.

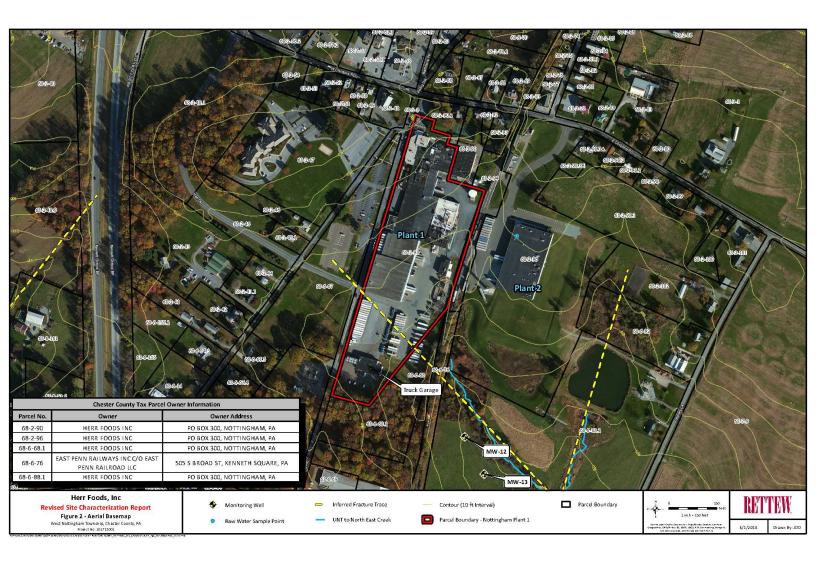
SPL has been detected at the Site at MW-4. Based on the findings of baildown testing, SPL recovery does not appear to be feasible using conventional pumping technology. SPL has not been detected at MW-4 since baildown testing was conducted on July 9, 2015. Continued monitoring of MW-4 for the presence of SPL is recommended.

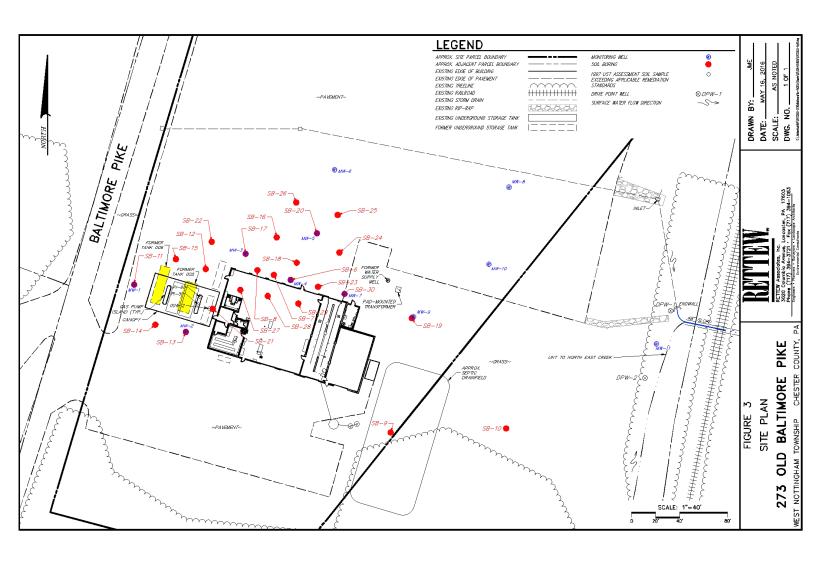
Remedial alternatives analysis and a selected remedial approach to protect surface water will be presented in a Remedial Action Plan (RAP) and submitted to the PADEP. It is anticipated that the RAP will be submitted within 45 days of PADEP approval of this Revised SCR.

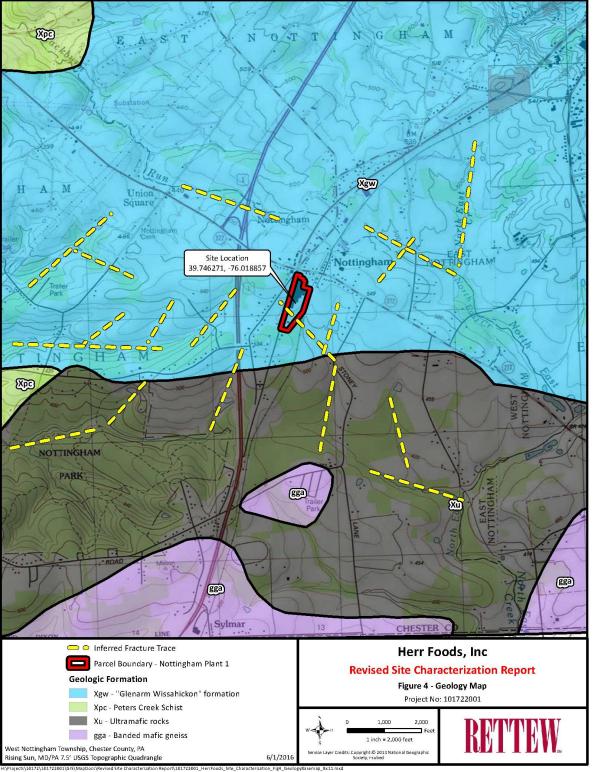
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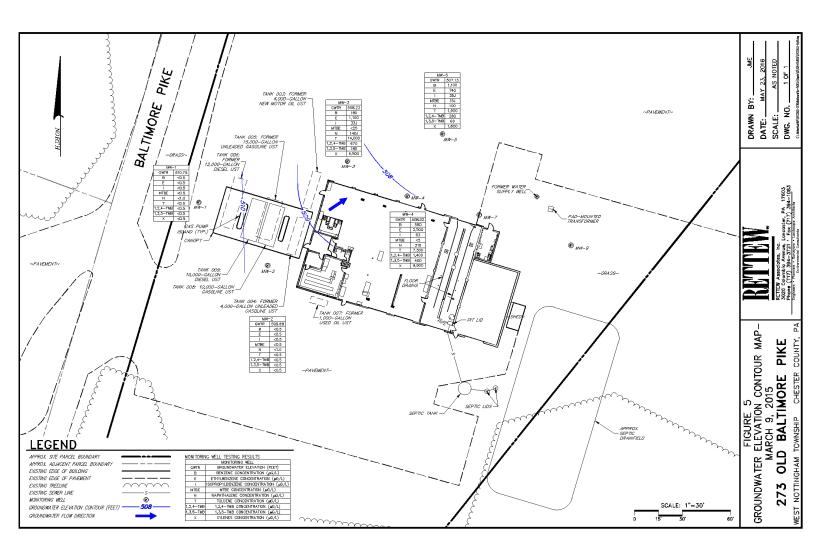


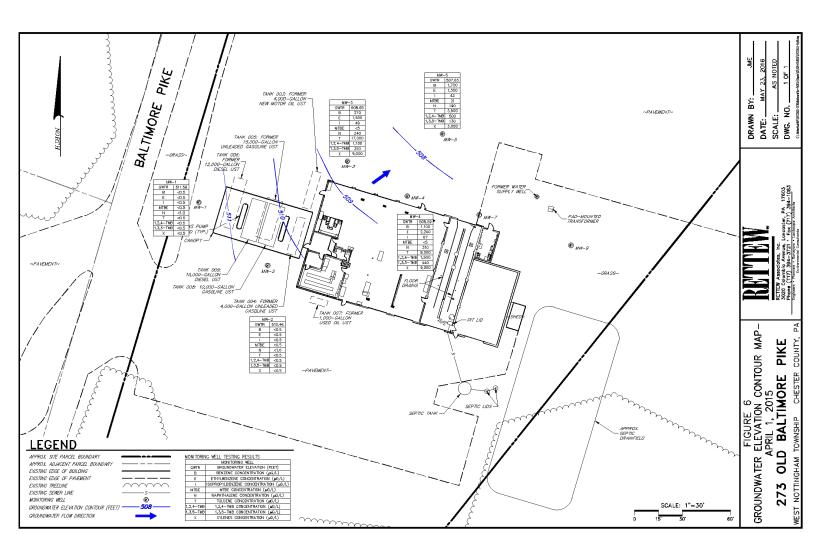


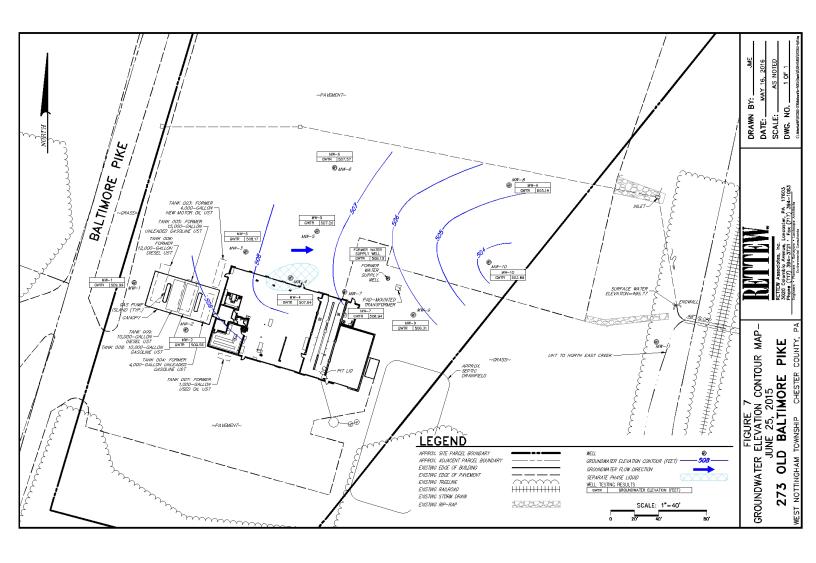


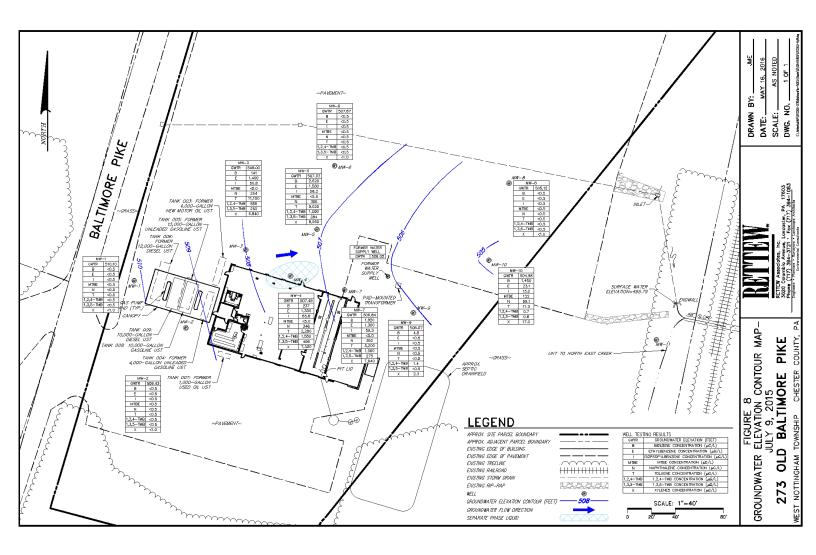


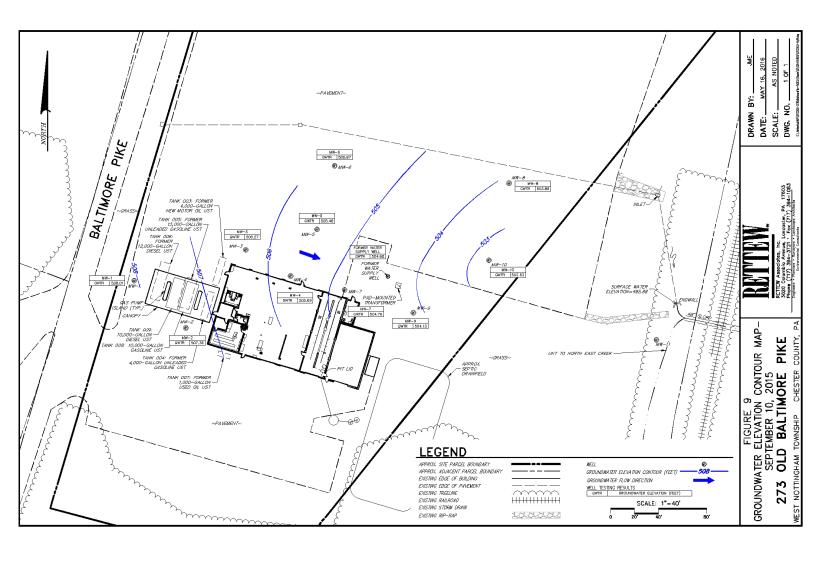


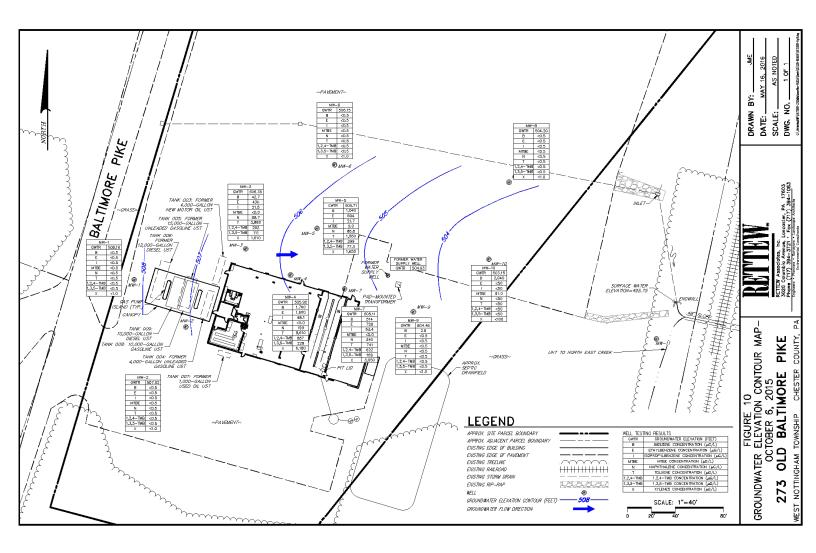


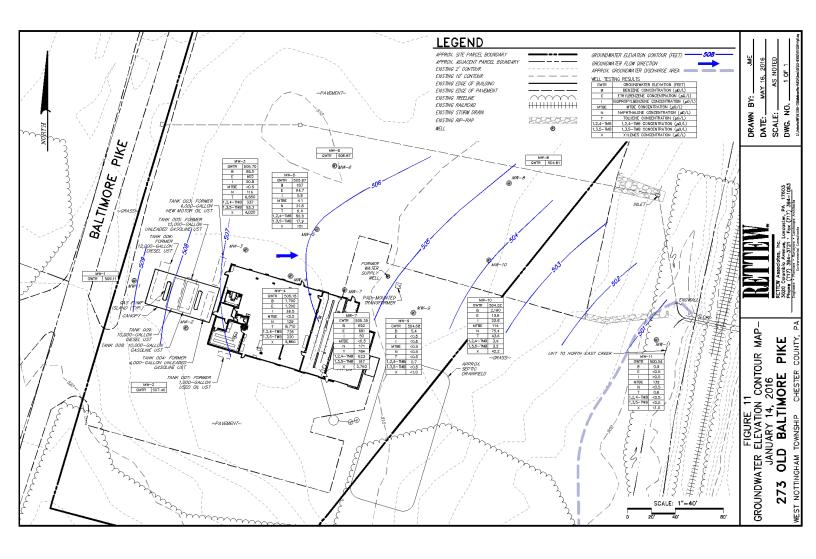


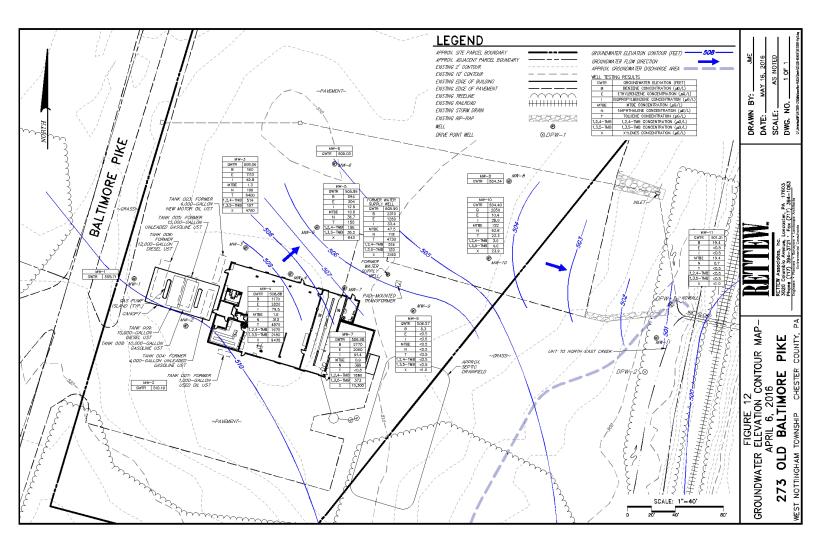


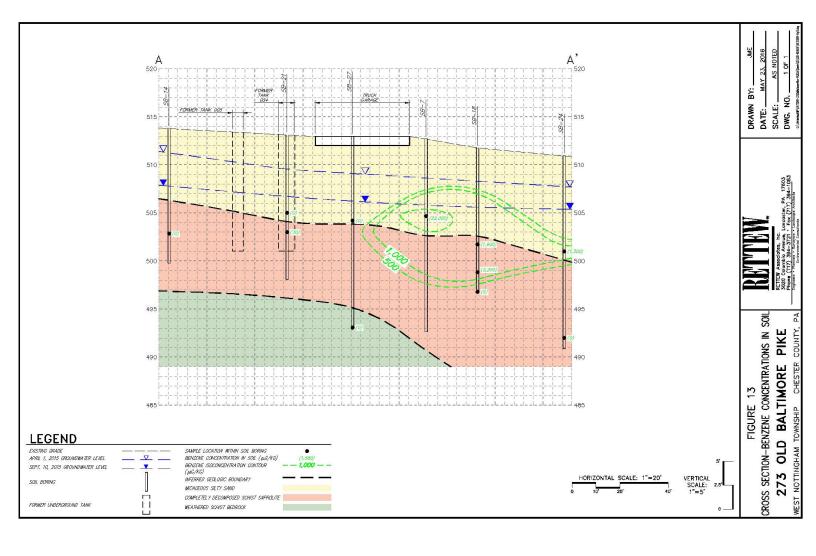


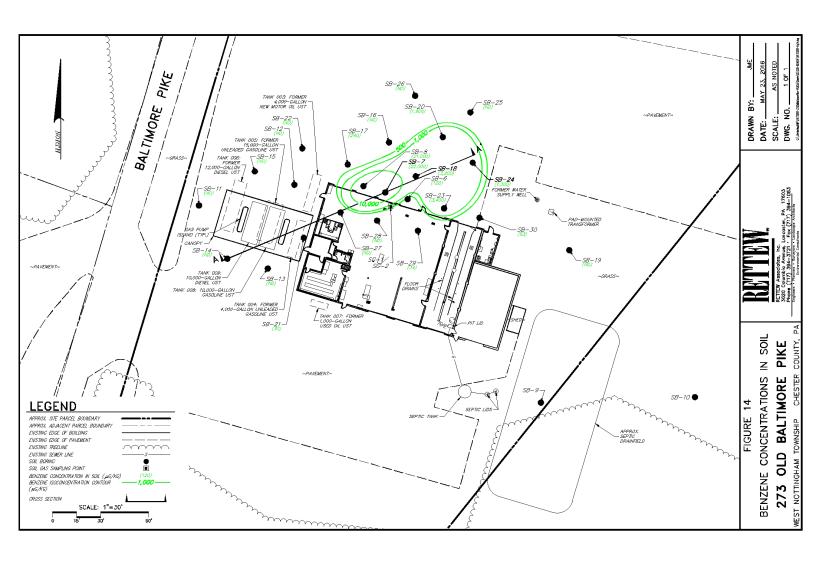


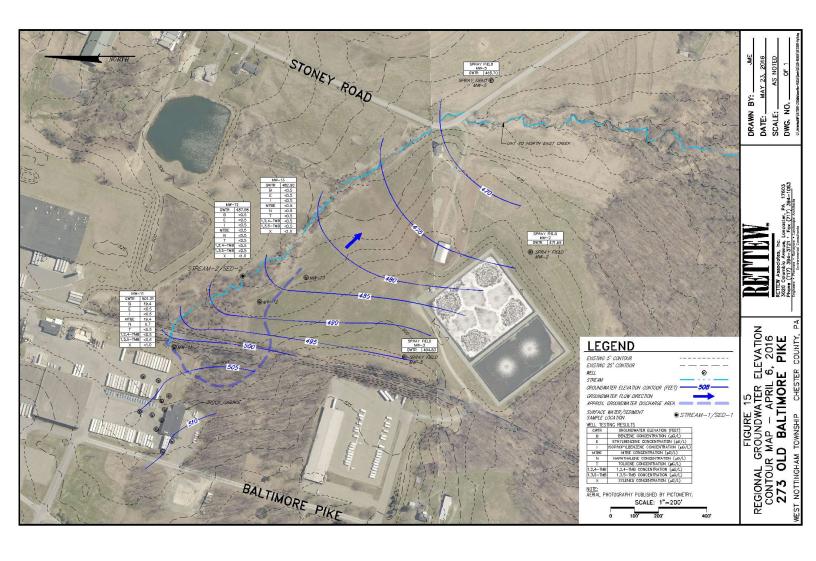


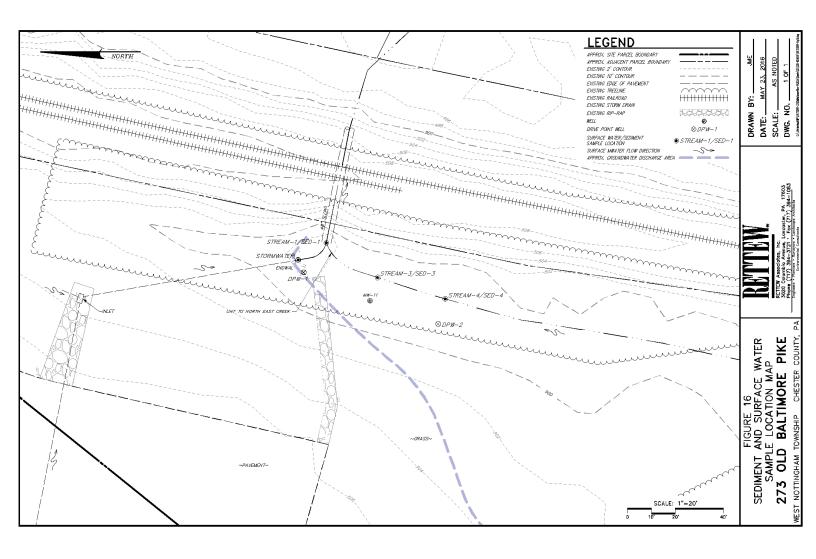


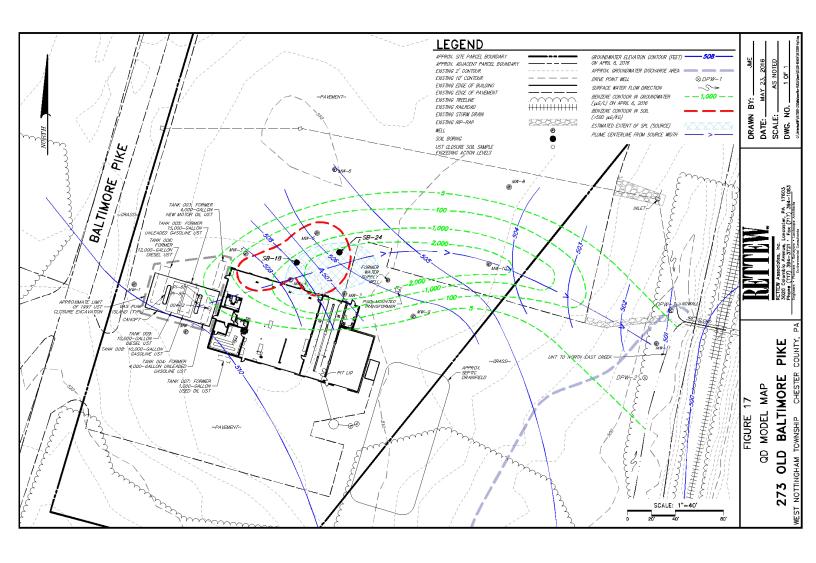


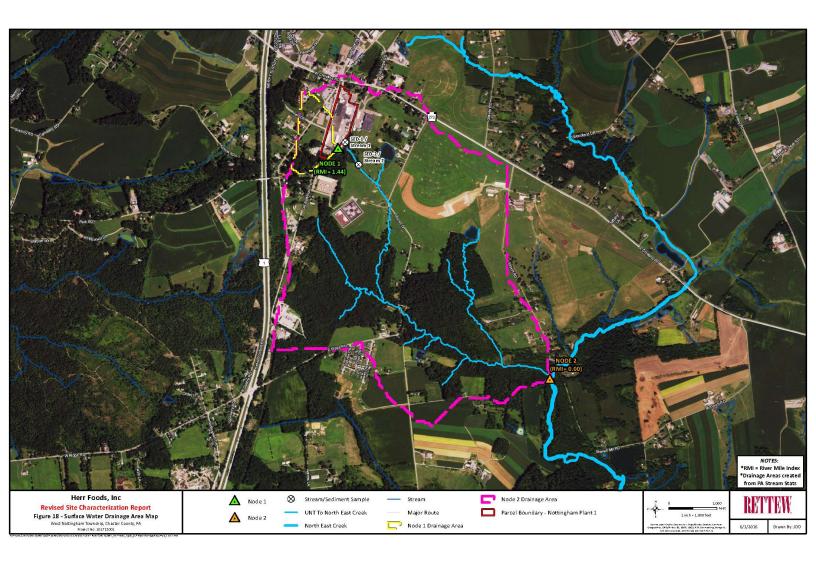












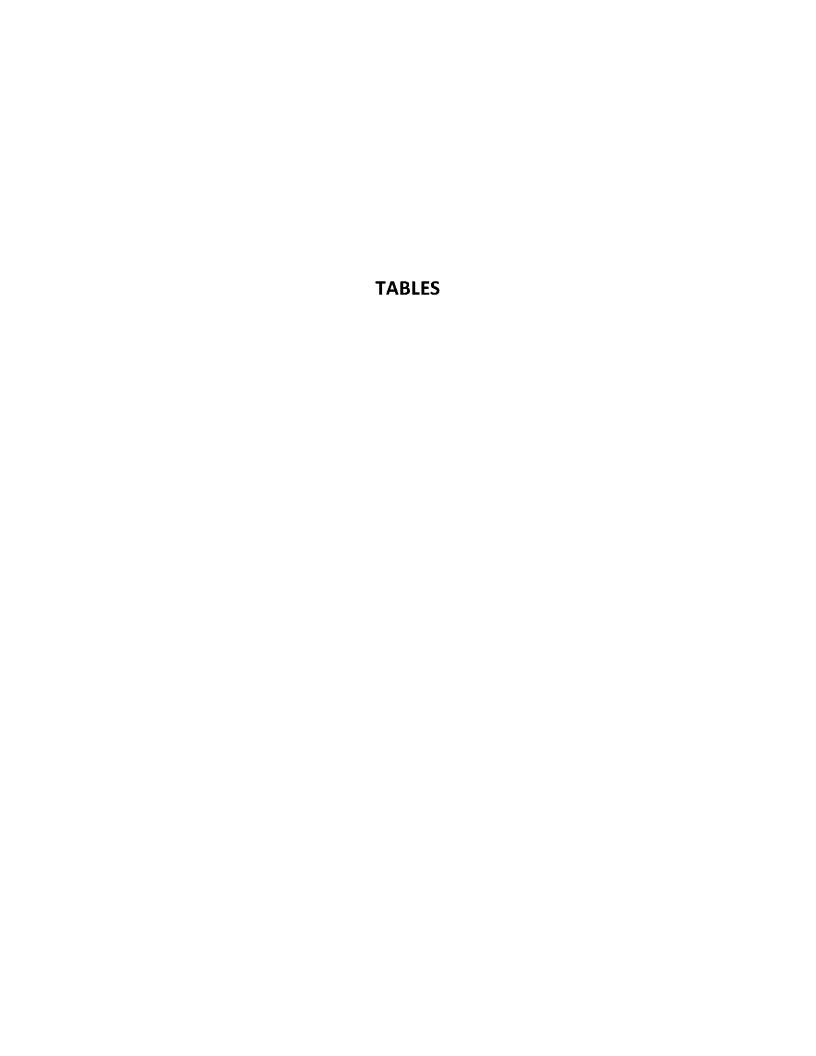


Table 1 Phase II ESA Soil Sample Analytical Data Summary Herr Foods, Inc. - 273 Old Baltimore Pike, Nottingham, Pennsylvania RETTEW Project No. 101722001

	А	ct 2 Statewide	Health Stan	dard Medium S	pecific Conc	entrations (M	SCs)					
	So	il to Groundwa	ter (Used A	quifers)		Direct Contac	ct					
PADEP Short List Petroleum Products for		TDS s	2500		Residential	Non-Res	sidential					
Lubricating Oils and Fluids	Res	idential	Non-ı	residential	1	Surface	Subsurface					
	100 X	1/10 Generic	100 X	1/10 Generic	1	Soil	Soil	SB-6	SB-7	SB-8	SB-9	SB-10
	GW MSC	Value	GW MSC	Value	0-15 feet	0-2 feet	2-15 feet	10 ft.	8 ft.	7 ft.	10 ft.	5 ft.
BENZENE	500	13	500	13	57,000	290,000	330,000	120	22,000	21,000	< 0.6	8
ETHYLBENZENE	70,000	4,600	70,000	4,600	10,000,000	10,000,000	10,000,000	6,500	85,000	120,000	NA	NA
NAPHTHALENE	10,000	2,500	10,000	2,500	4,400,000	56,000,000	190,000,000	1,500	18,000	30,000	< 5	< 45
TOLUENE	100,000	4,400	100,000	4,400	10,000,000	10,000,000	10,000,000	2,600	270,000	450,000	NA	NA
XYLENES	1,000,000	99,000	1,000,000	99,000	1,900,000	8,000,000	9,100,000	28,000	390,000	560,000	NA	NA
ANTHRACENE	6,600	35,000	6,600	35,000	66,000,000	190,000,000	190,000,000	< 4	29	29	< 5	< 45
BENZO(A)ANTHRACENE	29	32,000	360	32,000	5,700	110,000	190,000,000	< 4	10 J	10 J	< 5	< 45
BENZO(A)PYRENE	20	4,600	20	4,600	570	11,000	190,000,000	< 4	6 J	< 4	< 5	< 45
BENZO(B)FLUORANTHENE	29	17,000	120	17,000	5,700	110,000	190,000,000	< 4	< 4	< 4	< 5	< 45
BENZO(G,H,I)PERYLENE	26	18,000	26	18,000	13,000,000	170,000,000	190,000,000	< 4	81	< 4	< 5	< 45
CHRYSENE	190	23,000	190	23,000	570,000	11,000,000	190,000,000	< 4	11 J	10 J	< 5	< 45
FLOURENE	150,000	380,000	190,000	380,000	8,800,000	110,000,000	190,000,000	7 J	92	89	< 5	< 45
PHENANTHRENE	110,000	1,000,000	110,000	1,000,000	66,000,000	190,000,000	190,000,000	11 J	150	150	< 5	< 45
PYRENE	13,000	220,000	13,000	220,000	6,600,000	84,000,000	190,000,000	5 J	49	45	< 5	< 45

Notes

- 1) All units in milligrams per kilogram (ug/kg)
- 2) Bold & shaded MSCs represent the applicable Act 2 non-residential Statewide Health Standard.
- ${\bf 3)}\, Shaded\, results\, represent\, an\, \, exceedence\, of\, the\, applicable\, non-residential\, Statewide\, Health\,\, Standard.$
- 4) Soil samples were collected on October 6, 2014.
- 5) PADEP Short List petroleum products in italics are COPIACs.
- 6) NA = Not analyzed.
- 7) 1/10 of the Soil to Groundwater Generic Value used for soil in the zone of groundwater saturation below a depth of two feet.

\\CHOWDER\Share\Projects\10172\101722001\GS\Revised SCR\Phase II Analytical Summary Table.xlsx

		Act 2 States	ride Health Star	idard Medium Spec	ific Concentratio	ons (MSCs)											
		Soil to Groundwat	er (Used Aquife	rs)		Direct Contact	:			Soil Sampl	le Identificati	ons (Depth in	feet below g	rade below sa	mple I.D.)		
PADEP Short List Petroleum Products for Diesel		TDS 5	2500		Residential	Non-Re	sidential										
Fuel and Unleaded Gasoline	Res	idential	Non-r	esidential	1	Surface	Subsurface										
	100 X	1/10 Generic	100 X	1/10 Generic	1	Soil	Soil	SB-11	SB-12	SB-12	SB-12	SB-12	SB-13	SB-14	SB-15	SB-16	SB-17
	GW MSC	Value	GW MSC	Value	0-15 feet	0-2 feet	2-15 feet	14 ft.	5 ft.	8 ft.	12 ft.	18 ft.	10 ft.	11 ft.	11 ft.	12 ft.	7 ft.
BENZENE	500	13	500	13	5,700	290,000	330,000	< 29	< 29	< 58	< 29	< 30	< 30	< 29	< 28	< 28	< 27
ETHYLBENZENE	70,000	4,600	70,000	4,600	10,000,000	10,000,000	10,000,000	< 57	480	16,000	3,800	< 61	< 60	< 58	< 56	< 56	100
ISOPROPYLBENZENE	84,000	60,000	350,000	250,000	7,700,000	10,000,000	10,000,000	< 57	250 J	5,200	2,200	< 61	< 60	< 58	< 56	< 56	< 54
METHYL TERT BUTYL ETHER	2,000	28	2,000	28	620,000	3,200,000	3,700,000	< 29	< 29	< 58	< 29	< 30	< 30	< 29	< 28	< 28	< 27
NAPHTHALENE	10,000	2,500	10,000	2,500	4,400,000	56,000,000	190,000,000	< 57	880	9,000	2,400	100 J	< 60	< 58	< 56	< 56	350
TOLUENE	100,000	44,000	100,000	4,400	10,000,000	10,000,000	10,000,000	< 57	< 57	< 120	< 58	< 61	< 60	< 58	< 56	< 56	1,100
1,2,4-TRIMETHYLBENZENE	1,500	840	6,200	3,500	130,000	560,000	640,000	79 J	6,600	120,000	68,000	500	< 60	< 58	< 56	< 56	450
1,3,5-TRIMETHYLBENZENE	1,300	230	5,300	930	110,000	480,000	550,000	< 57	2,600	39,000	15,000	190 J	< 60	< 58	< 56	< 56	250 J
XYLENES	1,000,000	99,000	1,000,000	99,000	1,900,000	8,000,000	9,100,000	< 57	1,100	34,000	8,900	< 61	< 60	< 58	< 56	< 56	1,100
Moisture (%)				No Standard				15.4	18.7	20.0	27.3	16.6	19.4	22.9	28.2	27.9	17.6

Nator

1) All units in milligrams per kilogram (ug/kg)

2) Bold & shaded MSCs represent the applicable Act 2 non-residential Statewide Health Standard.

3) Shaded results represent an exceedence of the applicable non-residential Statewide Health Standard.

4) Soil samples were collected from SB-11 through SB-21 on February 5, 2015.

5) PADEP Short List petroleum products in *italics* are COPIACs.

6) 1/10 of the Soil to Groundwater Generic Value used for soil in the zone of groundwater saturation below a depth of two feet.

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		Act 2 States	ride Health Star	ndard Medium Spec	ific Concentratio	ons (MSCs)											
		Soil to Groundwa	er (Used Aquife	rs)		Direct Contact	:			Sample	Identification	s (Depth in fe	et below gra	de below sam	ple I.D.)		
PADEP Short List Petroleum Products for Diesel		TDS 5	2500		Residential	Non-Re	sidential										
Fuel and Unleaded Gasoline	Res	idential	Non-r	esidential		Surface	Subsurface										
	100 X	1/10 Generic	100 X	1/10 Generic		Soil	Soil	SB-17	SB-17	SB-18	SB-18	SB-18	SB-19	SB-20	SB-20	SB-20	SB-21
	GW MSC	Value	GW MSC	Value	0-15 feet	0-2 feet	2-15 feet	11 ft.	15 ft.	10 ft.	13 ft.	15 ft.	10 ft.	8 ft.	11 ft.	15 ft.	8 ft.
BENZENE	500	13	500	13	5,700	290,000	330,000	240 J	< 25	1,900	3,200	< 30	< 25	1,300	1,900	< 26	< 33
ETHYLBENZENE	70,000	4,600	70,000	4,600	10,000,000	10,000,000	10,000,000	130,000	< 51	710	810	< 59	< 49	630	680	< 53	< 66
ISOPROPYLBENZENE	84,000	60,000	350,000	250,000	7,700,000	10,000,000	10,000,000	7,400	< 51	< 56	< 59	< 59	< 49	< 55	< 61	< 53	< 66
METHYL TERT BUTYL ETHER	2,000	28	2,000	28	620,000	3,200,000	3,700,000	< 60	< 25	260 J	31 J	< 30	< 25	< 28	< 31	< 26	< 33
NAPHTHALENE	10,000	2,500	10,000	2,500	4,400,000	56,000,000	190,000,000	120	< 51	160 J	120 J	< 59	< 49	130 J	93 J	< 53	76 J
TOLUENE	100,000	44,000	100,000	4,400	10,000,000	10,000,000	10,000,000	12,000	< 51	280	9,500	< 59	< 49	4,500	5,000	< 53	< 66
1,2,4-TRIMETHYLBENZENE	1,500	840	6,200	3,500	130,000	560,000	640,000	1,200	< 51	990	890	< 59	230 J	590	500	< 53	< 66
1,3,5-TRIMETHYLBENZENE	1,300	230	5,300	930	110,000	480,000	550,000	1,200	< 51	300	290 J	< 59	89 J	180 J	150 J	< 53	< 66
XYLENES	1,000,000	99,000	1,000,000	99,000	1,900	110,000	580,000	1,200	< 51	3,500	3,800	< 59	< 49	2,500	2,900	< 53	< 66
MOISTURE (%)				No Standard				26.2	16.0	22.4	25.2	15.7	18.7	21.4	24.2	12.3	22.2

Nator

1) All units in milligrams per kilogram (ug/kg)

2) Bold & shaded MSCs represent the applicable Act 2 non-residential Statewide Health Standard.

3) Shaded results represent an exceedence of the applicable non-residential Statewide Health Standard.

4) Soil samples were collected from SB-11 through SB-21 on February 5, 2015.

5) PADEP Short List petroleum products in *italics* are COPIACs.

6) 1/10 of the Soil to Groundwater Generic Value used for soil in the zone of groundwater saturation below a depth of two feet.

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		Act 2 States	vide Health Star	ndard Medium Spec	ific Concentrati	ons (MSCs)											
		Soil to Groundwa	er (Used Aquife	ırs)		Direct Contac	1			Sample	Identification	s (Depth in fe	et below gra	de below sam	ple I.D.)		
PADEP Short List Petroleum Products for Diesel		TDS 5	2500		Residential	Non-Re	sidential										
Fuel and Unleaded Gasoline	Res	idential	Non-r	esidential		Surface	Subsurface										
	100 X	1/10 Generic	100 X	1/10 Generic		Soil	Soil	SB-21	SB-22	SB-22	SB-23	SB-23	SB-24	SB-24	SB-25	SB-25	SB-26
	GW MSC	Value	GW MSC	Value	0-15 feet	0-2 feet	2-15 feet	10 ft.	7 ft.	19 ft.	8 ft.	15 ft.	10 ft.	19 ft.	9 ft.	15 ft.	10 ft.
BENZENE	500	13	500	13	5,700	290,000	330,000	30 J	< 29	< 25	3,400	< 29	1,300	< 21	< 31	< 29	< 31
ETHYLBENZENE	70,000	4,600	70,000	4,600	10,000,000	10,000,000	10,000,000	180 J	< 58	< 50	50,000	< 57	200	< 42	< 62	< 57	< 62
ISOPROPYLBENZENE	84,000	60,000	350,000	250,000	7,700,000	10,000,000	10,000,000	< 51	< 58	< 50	3,400	< 57	< 58	< 42	< 62	< 57	< 62
METHYL TERT BUTYL ETHER	2,000	28	2,000	28	620,000	3,200,000	3,700,000	< 26	< 29	< 25	< 120	< 29	< 29	< 21	< 31	< 29	< 31
NAPHTHALENE	10,000	2,500	10,000	2,500	4,400,000	56,000,000	190,000,000	< 51	< 58	< 50	9,700	< 57	< 58	< 42	< 62	< 57	< 62
TOLUENE	100,000	44,000	100,000	4,400	10,000,000	10,000,000	10,000,000	270	< 58	< 50	100,000	< 57	3,300	< 42	< 62	< 57	< 62
1,2,4-TRIMETHYLBENZENE	1,500	840	6,200	3,500	130,000	560,000	640,000	670	< 58	< 50	90,000	59 J	120 J	< 42	< 62	< 57	< 62
1,3,5-TRIMETHYLBENZENE	1,300	230	5,300	930	110,000	480,000	550,000	240	< 58	< 50	28,000	< 57	< 58	< 42	< 62	< 57	< 62
XYLENES	1,000,000	99,000	1,000,000	99,000	1,900	110,000	580,000	1,100	< 58	< 50	220,000	72 J	1,000	< 42	< 62	< 57	< 62
MOISTURE (%)				No Standard				10.6	22.3	13.7	21.8	18.6	21.8	13.1	27.6	16.6	18.7

Notes

1) All units in milligrams per kilogram (ug/kg)

2) Bold & shaded MSCs represent the applicable Act 2 non-residential Statewide Health Standard.

 $3) Shaded \, results \, represent \, an \, \, exceedence \, of \, the \, applicable \, non-residential \, Statewide \, Health \, Standard.$

4) Soil samples were collected from SB-11 through SB-21 on February 5, 2015.

5) PADEP Short List petroleum products in *italics* are COPIACs.

 $6)\,1/10\,\,\text{of the Soil to Groundwater Generic Value used for soil in the zone of groundwater saturation below a depth of two feet.}$

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		Act 2 States	ride Health Star	idard Medium Spec	ific Concentratio	ons (MSCs)											
		Soil to Groundwat	er (Used Aquife	rs)		Direct Contact	:			Sample	Identification	ıs (Depth in fe	et below gra	de below sam	ple I.D.)		
PADEP Short List Petroleum Products for Diesel		TDS 5	2500		Residential	Non-Re	sidential										
Fuel and Unleaded Gasoline	Res	idential	Non-r	esidential	1	Surface	Subsurface										
	100 X	1/10 Generic	100 X	1/10 Generic	1	Soil	Soil	SB-26	SB-27	SB-27	SB-28	SB-28	SB-29	SB-29	SB-30	SB-30	
	GW MSC	Value	GW MSC	Value	0-15 feet	0-2 feet	2-15 feet	15 ft.	9 ft.	20 ft.	11 ft.	20 ft.	3 ft.	18 ft.	8 ft.	20 ft.	İ
BENZENE	500	13	500	13	5,700	290,000	330,000	< 28	< 29	< 28	< 29	< 25	34 J	< 24	53 J	< 27	
ETHYLBENZENE	70,000	4,600	70,000	4,600	10,000,000	10,000,000	10,000,000	< 57	2,000	< 57	< 58	< 51	7,700	< 49	< 56	< 55	
ISOPROPYLBENZENE	84,000	60,000	350,000	250,000	7,700,000	10,000,000	10,000,000	< 57	730	< 57	< 58	< 51	1,400	< 49	< 56	< 55	
METHYL TERT BUTYL ETHER	2,000	28	2,000	28	620,000	3,200,000	3,700,000	< 28	< 29	< 28	< 29	< 25	< 29	< 24	< 28	< 27	
NAPHTHALENE	10,000	2,500	10,000	2,500	4,400,000	56,000,000	190,000,000	< 57	1,300	< 57	< 58	< 51	3,700	< 49	< 56	< 55	
TOLUENE	100,000	44,000	100,000	4,400	10,000,000	10,000,000	10,000,000	< 57	< 58	< 57	< 58	< 51	< 57	< 49	< 56	< 55	
1,2,4-TRIMETHYLBENZENE	1,500	840	6,200	3,500	130,000	560,000	640,000	< 57	20,000	< 57	< 58	< 51	49,000	< 49	510	< 55	
1,3,5-TRIMETHYLBENZENE	1,300	230	5,300	930	110,000	480,000	550,000	< 57	6,700	< 57	< 58	< 51	16,000	< 49	200 J	< 55	
XYLENES	1,000,000	99,000	1,000,000	99,000	1,900	110,000	580,000	< 57	6,400	< 57	< 58	< 51	28,000	< 49	440	< 55	
MOISTURE (%)				No Standard				13.7	16.1	16.7	15.2	14.9	22.2	14.4	22.0	14.6	

Nator

1) All units in milligrams per kilogram (ug/kg)

2) Bold & shaded MSCs represent the applicable Act 2 non-residential Statewide Health Standard.

3) Shaded results represent an exceedence of the applicable non-residential Statewide Health Standard.

4) Soil samples were collected from SB-11 through SB-21 on February 5, 2015.

5) PADEP Short List petroleum products in *italics* are COPIACs.

6) 1/10 of the Soil to Groundwater Generic Value used for soil in the zone of groundwater saturation below a depth of two feet.

\\CHOWDER\Share\Projects\10172\101722001\GS\Revis ed SCR\Soil Analytical DataSummary.xixx

						Water	Adj. Water		zene	sapropylberzene		ilene		8	2	
Well	TOC Elev. (feet)	Date	Depth to SPL (feet)	Depth to Water (feet)	SPL Thickness (feet)	Table Elev. (feet)	Table Elev. (feet)	Benzene	Ethylbenzene	Isapropy	MTBE	Naphthalene	Toluene	1,2,4-TMB	1,3,5-TMB	Xyienes
		3/9/2015	0.00	2.20	0.00	510.75	510.75	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	< 0.5	< 0.5	< 0.5	< 0.5
		4/1/2015	0.00	1.39	0.00	511.56	511.56	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	< 0.5	< 0.5	< 0.5	< 0.5
		6/25/2015	0.00	2.96	0.00	509.99	509.99	NS	NS	NS	NS	NS	NS	NS	NS	NS
		7/9/2015	0.00	2.85	0.00	510.10	510.10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MW-1	512.95	9/10/2015	0.00	4.94	0.00	508.01	508.01	NS	NS	NS	NS	NS	NS	NS	NS	NS
		10/6/2015	0.00	4.79	0.00	508.16	508.16	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
		1/14/2016	0.00	3.84	0.00	509.11	509.11	NS	NS	NS	NS	NS	NS	NS	NS	NS
		4/6/2016	0.00	3.24	0.00	509.71	509.71	NS	NS	NS	NS	NS	NS	NS	NS	NS
		3/9/2015	0.00	2.96	0.00	509.68	509.68	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	< 0.5	< 0.5	< 0.5	< 0.5
		4/1/2015	0.00	2.18	0.00	510.46	510.46	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	< 0.5	< 0.5	< 0.5	< 0.5
		6/25/2015	0.00	3.08	0.00	509.56	509.56	NS	NS	NS	NS	NS	NS	NS	NS	NS
		7/9/2015	0.00	3.21	0.00	509.43	509.43	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MW-2	512.64	9/10/2015	0.00	5.28	0.00	507.36	507.36	NS	NS	NS	NS	NS	NS	NS	NS	NS
		10/6/2015	0.00	5.62	0.00	507.02	507.02	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
		1/14/2016	0.00	5.24	0.00	507.40	507.40	NS	NS	NS	NS	NS	NS	NS	NS	NS
		4/6/2016	0.00	2.45	0.00	510.19	510.19	NS	NS	NS	NS	NS	NS	NS	NS	NS
		3/9/2015	0.00	3.38	0.00	508.23	508.23	180	1,100	33 J	< 25	1401	14,000	670	180	6,500
		4/1/2015	0.00	2.96	0.00	508.65	508.65	270	1,600	49.0	<5	240	17,000	1100	310	9,000
		6/25/2015	0.00	3.44	0.00	508.17	508.17	NS	NS	NS	NS	NS	NS	NS	NS	NS
		7/9/2015	0.00	3.61	0.00	508.00	508.00	141	1,400	50.8	< 5.0	254	11,100	866	252	6,840
MW-3	511.61	9/10/2015	0.00	5.34	0.00	506.27	506.27	NS	NS	NS	NS	NS	NS	NS	NS	NS
		10/6/2015	0.00	5.26	0.00	506.35	506.35	42.7	430	21.5	< 5.0	88.7	3,890	292	111	1,610
		1/14/2016	0.00	4.91	0.00	506.70	506.70	88.5	802	20.8	< 0.5	116	6,550	337	93.3	4,020
			0.00	2.55	0.00	509.06	509.06	160	1,110	42.8	1.3	196	8,400	514	197	4,750
		4/6/2016							<u> </u>			310		l	<u> </u>	<u> </u>
		3/9/2015	0.00	3.94	0.00	508.02 508.59	508.02	580	2,500	63.0	< 5.0		7,300	1,400	400	9,900
		4/1/2015	0.00	3.37	0.00		508.59	1,000	2,200	67.0	< 5.0	310	9,000	1,500	440	· ·
		6/25/2015	4.07	4.22	0.15	507.74	507.64	NS	NS	NS	NS	NS D4.6	NS D Doo	NS	NS 40.5	NS
MW-4	511.96	7/9/2015	4.25	4.37	0.12	507.59	507.51	237	1,330	65.8	< 5.0	346	2,280	1,550	406	7,320
		9/10/2015	0.00	6.27	0.00	505.69	505.69	NS .	NS	NS	NS	NS	NS	NS	NS	NS
		10/6/2015	0.00	6.04	0.00	505.92	505.92	1,760	1,600	68.1	< 5.0	199	8,610	857	228	6,180
		1/14/2016	0.00	5.81	0.00	506.15	506.15	1,790	1,290	36.5	< 0.5	129	8,710	725	220	5,860
		4/6/2016	0.00	3.08	0.00	508.88	508.88	1,170	2,820	79.5	1.9	313	4,870	1,970	2,180	9,430
		3/9/2015	0.00	3.44	0.00	507.13	507.13	1,100	740	25 J	15 J	100	1,900	280	68	1,600
		4/1/2015	0.00	2.94	0.00	507.63	507.63	1,700	1300	42	21	190	3,500	500	130	3,000
		6/25/2015	0.00	3.37	0.00	507.20	507.20	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-5	510.57	7/9/2015	0.00	3.54	0.00	507.03	507.03	2,620	1,580	58.2	< 5.0	306	9,020	1,090	284	8,260
		9/10/2015	0.00	5.09	0.00	505.48	505.48	NS	NS	NS	NS	NS	NS	NS	NS	NS
		10/6/2015	0.00	4.86	0.00	505.71	505.71	1,040	694	21.7	9.0	86.8	1,550	299	77.3	1,650
		1/14/2016	0.00	4.60	0.00	505.97	505.97	187	94.7	5.6	4.1	21.8	6.4	56.8	17.9	151
		4/6/2016	0.00	4.61	0.00	505.96	505.96	594	304	12.5	10.6	36.7	155	156	35.2	643
		6/25/2015	0.00	2.00	0.00	507.57	507.57	NS	NS	NS	NS	NS	NS	NS	NS	NS
		7/9/2015	0.00	1.90	0.00	507.67	507.67	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MW-6	509.57	9/10/2015	0.00	3.90	0.00	505.67	505.67	NS	NS	NS	NS	NS	NS	NS	NS	NS
		10/6/2015	0.00	3.42	0.00	506.15	506.15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
		1/14/2016	0.00	2.70	0.00	506.87	506.87	NS	NS	NS	NS	NS	NS	NS	NS	NS
		4/6/2016	0.00	4.54	0.00	505.03	505.03	NS	NS	NS	NS	NS	NS	NS	NS	NS
		6/25/2015	0.00	4.37	0.00	506.94	506.94	NS	NS	NS	NS	NS	NS	NS	NS	NS
		7/9/2015	0.00	4.47	0.00	506.84	506.84	1,820	1,300	59.3	< 0.5	352	3,200	1,060	275	7,940
MW-7	511.31	9/10/2015	0.00	6.55	0.00	504.76	504.76	NS	NS	NS	NS	NS	NS	NS	NS	NS
''''		10/6/2015	0.00	6.20	0.00	505.11	505.11	514	728	53.4	< 0.5	240	741	622	169	3,050
		1/14/2016	0.00	5.96	0.00	505.35	505.35	692	681	50.0	< 0.5	171	784	623	167	3,760
		4/6/2016	0.00	4.33	0.00	506.98	506.98	2,770	2,050	91.4	0.9	389	< 0.5	1,680	373	10,300

Well	TOC Elev. (feet)	Date	Depth to SPL (feet)	Depth to Water (feet)	SPL Thickness (feet)	Water Table Elev. (feet)	Adj. Water Table Elev. (feet)	Berzene	Ethylbenzene	Isapropylbenzene	MTBE	Naphthalene	Toluene	1,2,4-TMB	1,3,5-TMB	Xylenes
		6/25/2015	0.00	2.86	0.00	505.18	505.18	NS	NS	NS	NS	NS	NS	NS	NS	NS
		7/9/2015	0.00	2.89	0.00	505.15	505.15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MW-8	E00.04	9/10/2015	0.00	4.15	0.00	503.89	503.89	NS	NS	NS	NS	NS	NS	NS	NS	NS
IVIVV-8	508.04	10/6/2015	0.00	3.84	0.00	504.20	504.20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
		1/14/2016	0.00	3.23	0.00	504.81	504.81	NS	NS	NS	NS	NS	NS	NS	NS	NS
		4/6/2016	0.00	3.70	0.00	504.34	504.34	NS	NS	NS	NS	NS	NS	NS	NS	NS
		6/25/2015	0.00	2.31	0.00	506.31	506.31	NS	NS	NS	NS	NS	NS	NS	NS	NS
		7/9/2015	0.00	2.55	0.00	506.07	506.07	4.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.4	< 0.5	2
MW-9	508.62	9/10/2015	0.00	4.49	0.00	504.13	504.13	NS	NS	NS	NS	NS	NS	NS	NS	NS
10100-9	508.62	10/6/2015	0.00	4.16	0.00	504.46	504.46	2.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
		1/14/2016	0.00	3.94	0.00	504.68	504.68	5.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.7	< 0.5	< 1.0
		4/6/2016	0.00	2.05	0.00	506.57	506.57	5.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
		6/25/2015	0.00	4.22	0.00	503.81	503.81	NS	NS	NS	NS	NS	NS	NS	NS	NS
		7/9/2015	0.00	3.05	0.00	504.98	504.98	1,450	23	13.2	122	59.1	11	0.7	0.8	17
N. 10	E00.03	9/10/2015	0.00	5.51	0.00	502.52	502.52	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-10	508.03	10/6/2015	0.00	4.88	0.00	503.15	503.15	2,040	< 50	< 50	91	< 50	< 50	< 50	< 50	< 100
		1/14/2016	0.00	4.01	0.00	504.02	504.02	2,190	13.6	22.6	114	75.4	43.6	3.9	3.2	42.2
		4/6/2016	0.00	3.63	0.00	504.40	504.40	2,050	10.4	28.0	122	62.6	22.3	3.0	4.0	23.9
MW-11	500.78	1/14/2016	0.00	0.24	0.00	500.54	500.54	0.9	< 0.5	< 0.5	137	< 0.5	0.6	< 0.5	< 0.5	< 1.0
IAIAA-TT	500.78	4/6/2016	0.00	0.34*	0.00	501.31	501.31	19.4	< 0.5	< 0.5	19.4	0.7	< 0.5	< 0.5	< 0.5	< 1.0
104/12	490.67	1/14/2016	0.00	2.20	0.00	487.47	487.47	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MW-12	489.67	4/6/2016	0.00	2.09	0.00	487.58	487.58	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MW-13	486.88	1/14/2016	0.00	3.41	0.00	483.47	483.47	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
14144-12	400.00	4/6/2016	0.00	3.98	0.00	482.90	482.90	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
		6/25/2015	0.00	5.08	0.00	506.13	506.13	NS	NS	NS	NS	N5	NS	NS	NS	NS
		7/9/2015	0.00	5.19	0.00	506.02	506.02	NS	NS	NS	NS	NS	NS	NS	NS	NS
Former	511.21	9/10/2015	0.00	6.61	0.00	504.60	504.60	NS	NS	NS	NS	NS	NS	NS	NS	NS
Supply Well	511.21	10/6/2015	0.00	6.28	0.00	504.93	504.93	NS	NS	NS	NS	NS	NS	NS	NS	NS
		1/14/2016	0.00	5.09	0.00	506.12	506.12	NS	NS	NS	NS	NS	NS	NS	NS	NS
		4/6/2016	0.00	5.31	0.00	505.90	505.90	2,310	1,280	33.4	47.5	118	4,730	518	120	3,160
		6/25/2015	0.00	3.55	0.00	495.77	495.77	NS	NS	NS	NS	NS	NS	NS	NS	NS
		7/9/2015	0.00	3.53	0.00	495.79	495.79	NS	NS	NS	NS	NS	NS	NS	NS	NS
End Wall	400.22	9/10/2015	0.00	3.44	0.00	495.88	495.88	NS	NS	NS	NS	NS	NS	NS	NS	NS
(Stream)	499.32	10/6/2015	0.00	3.57	0.00	495.75	495.75	NS	NS	NS	NS	NS	NS	NS	NS	NS
		1/14/2016	0.00	5.39	0.00	493.93	493.93	NS	NS	NS	NS	NS	NS	NS	NS	NS
		4/6/2016	0.00	3.66	0.00	495.66	495.66	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Act 2 Stat	ewide Health	Standards fo	or Used, No	n-Residentia	Aquifers		5	700	3,500	20	100	1,000	62	53	10,000

- Notes:

 1) TOC = Top of casing.

 2) SPL = Separate phase liquid.

 3) All units in milligrams per kilogram (ug/l).

 4) Shaded results represent an exceedence of the applicable non-residential Statewide Health Standard.

 5) PADEP Short List petroleum products in Italics are COPIACs.

 6) J = Estimated concentration detected between the method detection limit and the limit of quantitation.

 7) NS = Not sampled.

 8) Adjusted water table elevation based on an assumed SPL specific gravity of 0.68.

 * Water level measured from the top of the protective casing (elevation 501.65) due to static water above TOC.

Table 4 Groundwater Trend Analysis Herr Foods, Inc. Nottingham Plant RETTEW Project No. 101722001

		MW-3			MW-4			MW-5			MW-7			MW-10	
Parameter	Trend	R ² Value	Variation	Trend	R ² Value	Variation									
Benzene	Decreasing	28.55%	High	Increasing	33.67%	Moderate	Decreasing	36.62%	Moderate	Increasing	12.65%	High	Increasing	59.69%	Moderate
Toluene	Decreasing	55.99%	Low	Decreasing	1.74%	High	Decreasing	23.48%	High	Decreasing	77.58%	Low	ı	nsufficient Dat	а
Ethγlbenzene	Decreasing	22.50%	Moderate	Decreasing	0.07%	High	Decreasing	49.44%	Moderate	Increasing	18.20%	High	1	nsufficient Dat	а
Naphthalene	Decreasing	7.29%	High	Decreasing	19.47%	High	Decreasing	34.75%	Moderate	Increasing	0.09%	High	1	nsufficient Dat	a
1,2,4-TMB	Decreasing	46.39%	Moderate	Decreasing	0.06%	High	Decreasing	21.15%	High	Increasing	21.38%	High	1	nsufficient Dat	a
1,3,5-TMB	Decreasing	27.77%	High	Increasing	34.36%	Moderate	Decreasing	20.77%	High	Increasing	13.30%	High	1	nsufficient Dat	a
Xγlenes	Decreasing	40.24%	Moderate	Decreasing	14.20%	High	Decreasing	17.64%	High	Increasing	7.68%	High	1	nsufficient Dat	a
МТВЕ	li	nsufficient Dat	a	li	nsufficient Dat	a	Decreasing	21.15%	High	-	nsufficient Dat	a	Increasing 4.40% High		

NOTES:

- 1) High variation defined as an R-squared vaule in the range of 0 to 30%.
 2) Moderate variation defined as an R-squared vaule in the range of 30% to 60%.
 3) Low variation defined as an R-squared vaule in the range of 60% to 100%.

APPENDIX A 1997 UST Closure Report and Supporting Documentation

ATTACHMENT 4



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

UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

		15	5-24418		
		Fa	cility I.D.		
•		W. Nottingham		Chester	
		Municipality		County	
			7/2/97		
		Date	e Prepared		
			el Willia		
		Name of Perso (Ple	on Submitt ease Print)	ing Report	
		Clayton Serv		_ 	
	·		pany Nam (pplicable)		
		Projec	c t Mana ç Title	jer	
Clo	sure Method (Check all tha	it apply):	Site	Assessment Results	(Check all that apply):
	·			No Obvious Contamin Standards/Levels	ation - Sample Results Mee
X	Removal			No Obvious Contamin Not Meet Standards/Lo	ation - Sample Results Do
	Closure-in-Place		X	Obvious, Localized Co Results Meet Standard	
	Change-In-Service			Obvious, Localized Co Results Do Not Meet S	ontamination - Sample Standards/Levels - Some
				Obvious, Extensive Co	ontamination
Ji .					

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

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 Number15	-24418	2. Facility	Name <u>Herr F</u>	oods Inc.	
3. Facility County Chest	er	4. Facility N	lunicipality <u>W</u>	Nottingham	
5. Facility Address Rout	e 272 & Herr Drive, PO Box 3	00, Nottingham,	PA 19362		
6. Facility Contact Person	Steve Moran	7. Facility	Telephone Num	ber <u>(610)932</u> 6	6500
8. Owner Name Herr Foo	ds Inc.				
9. Owner Mailing Address	PO Box 300, Nottingham, PA	A 19362			
0. Description of Undergrou	und Storage Tanks (Complete	for each tank clo	osed)		
DATE OF TANK CLOSURE	(Month/Dav/Year)	5/28/97	5/28/97	6/4/97	6/4/97
Tank Registration Number		003	004	005	006
Estimated Total Capacity (Gallons)	4000	4000	15000	12000
Substance(s) Stored	a. Petroleum				
Throughout Operating	Unleaded Gasoline			8000000000000	L ∐
Life of Tank	Leaded Gasoline				닠
(Check All That Apply)	Aviation Gasoline		800000000000		
1	Kerosene			닏	님
	Jet Fuel			닏	ᅵ
	Diesel Fuel			ᆜ	≌
	Fuel Oil No. 1				<u> </u>
	Fuel Oil No. 2				
	Fuel Oil No. 4			□	
	Fuel Oil No. 5				
	Fuel Oil No. 6			□	
	New Motor Oil				i 📙
	Used Motor Oil				
1	Other, Please Specify				
NOTE: If Hazardous	 b. Hazardous Substance 				
Substance Block is Checke	d, Name of Principal				
Attach Material Safety Data	CERCLA Substance				
Sheets (MSDS)	<u>AND</u>				
, í	Chemical Abstract				
1	Service (CAS) No.				l — —
	c. Unknown			<u> </u>	
Closure Method	a. Removal		N N		M
(Check Only One)	 b. Closure-in-Place 			I	
	c. Change-in-Service		<u> </u>		<u> </u>
Partial System Closure (Yes	or No)				

2530-FM-LRWM0159 4/96

DATE OF TANK CLOSURE (Month/Day/Year)	5/28/97			
Tank Registration Number	007			
Estimated Total Capacity (Gallons)	1000			
Substance(s) Stored Throughout Operating Life of Tank (Check All That Apply) Check All That Apply) Aviation Gasoli Kerosene Jet Fuel Diesel Fuel Fuel Oil No. 1 Fuel Oil No. 2 Fuel Oil No. 5 Fuel Oil No. 6 New Motor Oil Used Motor Oil Other, Please S	ne			
NOTE: If Hazardous b. Hazardous Substance Block is Checked, Attach Material Safety Data CERCLA Substance (MSDS) Sheets (MSDS) Chemical Abstance Block is Checked, Name of Princi CERCLA Substance (CERCLA Substance) AND Chemical Abstance (CAS) C. Unknown	pal tance			
Closure Method a. Removal (Check Only One) b. Closure-in-Place c. Change-in-Ser				
Partial System Closure (Yes or No)				
Yes N/A 11. Briefly describe the storage tan the facility (both historical and o	k facility and the nature o	of the operations	s which were co	nducted at

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: Herr Foods Inc. is a potato chip, pretzel and other snack food manufacturer. The facility was a farm prior to the current use. 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: 6/16/97 15. If a reportable release was confirmed, the appropriate regional office of DEP was notified by the owner or operator. Date: 6/6/97 Office: Southeast Regional

2530-FM-LRWM0159 4/96 N/A Yes Ø 16. If tanks were cleaned on-site: a. Briefly describe the disposition of usable product: All usable product was utilized by the owner prior to tank cleaning and removal. 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): All tank liquids and bottom sediments were transported by Associated Environmental Technologies (MD2000006908) and transported to Internation Petroleum Corporation as Nonhazardous waste (MDD 985389816). Documentation attached. c. If tank contents were determined/deemed to be hazardous waste, provide: (1) Generator ID Number: N/A (2) Licensed Hazardous Waste Transporter Name and ID Number: N/A 17. If tanks were removed from the site for cleaning: X 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): All tanks and associated piping were transported by Zadinsky Contractors for ultimate disposal at Luria Brothers located in Modena, PA. Proper docuemntation is attached. 19. If contaminated soil is excavated: X a. Briefly describe the disposition and amount approximately 1200 (tons) of contaminated soil. Provide the name and permit number of the processing, treatment, storage or disposal facility.

> b. If contaminated soil is determined/deemed to be hazardous waste, provide: (1) Generator ID Number:

All excavated contaminated soil is properly stockpiled under plastic awaiting disposal at a licensed recycling facility. Proper disposal documentation will be forwarded when

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

(Attach documentation of proper disposal):

completed.

2530-FM-LRWM0159 4/96

res	N/A		
<u>.</u>		Approximately 15 tons of unconta excavation. Backfilling was comple	amount <u>15</u> (tons) of uncontaminated soil (attach analyses): minated soil was backfilled into the waste oil UST ted after excavation and piping samples did not reveal backfill sample was required as per PADEP Technical
unsv	vorn fal	Isification to authorities) that I am the owner	penalty of law as provided in 18 Pa. C.S. S4904 (relating to of the above referenced storage tank(s) and that the information accurate and complete to the best of my knowledge and belief.
		Signature of Tank Owner	7/22/97 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 15-24418

Yes	N/A	1.	Briefly describe the excavation and initial on-site staging of uncontaminated/contaminated soil: All excavated soils were placed under 6mil plastic awaiting testing and disposal options.
		2.	Briefly describe the method of piping system closure and the closure of the piping systems including the quantity and condition of the piping: All piping systems were drained back to their respective tanks and any residuals were then vacuumed out. Upon removal, all piping exhibited external corrosion with the piping associated with Tanks 005 & 006 being suspect at unions and connections under pumps. No visible holes were observed in any piping.
,		3.	Briefly describe the condition of the tanks and any problems encountered during tank removal: All tanks exhibited external corrosion and minor pitting upon inspection. Tank 005 (unl gas) exhibited several weep holes along the entire bottom. Tank 006 exhibited several holes along the bottom centerline of the tank.
		4.	Briefly describe the method used to purge the tanks of and monitor for explosive vapors: <u>Tanks were vacuumed out, purged with an air eductor (venturi) and monitored with an LEL/O2 meter prior to, during, and after cleaning.</u>
		5.	If tanks were cleaned on-site: a. Briefly describe the tank cleaning process: The tanks were vacuumed out, squeegeed clean, and rag wiped dry with absorbent material. b. If subcontracted, name and address of company that performed the tank cleaning:
	\boxtimes	6.	If tanks were closed-in-place, briefly describe the tank fill material:
\boxtimes		7.	If contamination was suspected or observed, the "Notification of Contamination" form was submitted.

SECTION II. (continued)

I, <u>Michael Donovan</u> , hereby certify, under penalty of law as p falsification to authorities) that I am the certified installer who per closure of the above referenced storage tank(s) and that the infinite is true, accurate and complete to the best of my knowledge and	erformed the tank handling activities associated with the ormation provided by me in this closure report (Section II)
Signature of Certified Installer	1 / i8 / A7 Date
2830	36
Installer Certification Number	Company Certification Number
	Enercon Services, Inc.
	Company Name
	PO Box 174
	Street
	Bear, DE 19701
	City/Town, State, Zip
	302-834-9402
	Phone

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

UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

SECTION III. Site Assessment Information

Tank Registration # <u>OS3</u> (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)

Facility ID Number

A.		vide de ountere	pth of <i>BEDROCK</i> and <i>WATER</i> <u>IF</u> encountered during exed).	a		
	Bec	Irock _ ^K	feet below land surface	Water N/A	_feet below land surface	
В.	Provide Length of <i>PIPING</i> <u>IF</u> piping was closed-in-place (write "N/A" if NOT closed-in-place). Length of piping $\frac{\kappa/A}{A}$ feet					
C.	TANK SYSTEM REMOVED FROM THE GROUND					
	1)	Was <u>ol</u> ⊠	bvious contamination observed while excavating? NO ——— Conduct confirmatory sampling ————— Sand maintenance of closure records————— Do not	See end of this complete item	section for options on subm C.2, below.	nission
			YES Report release to DEP within 2 hours likely source(s) (tank, piping, dispenser, spills, overfills)): Desc	ribe contamination observed Complete item C.2. be	d and low.
	2)		ontamination <u>localized</u> (within three feet of the tank systenination)?			
			YES ——— Remove or remediate contaminated soil See end of this section for options on submission and Indemnification Fund (717-787-0763).	Co maintenance	nduct confirmatory sampling of closure records)Call
			NO ———— Continue interim remedial actions — submission and maintenance of closure records ————	See 6 Call Inde	end of this section for open mnification Fund (717-787-0	tions on 0763).
D.	TA	NK SYS	STEM 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 are maintenance of closure records. YES —— Report release to DEP within 2 hours —— Describe contamination observed and 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 ———— Indemnification Fund (717-787-0763). 			depths? on for options on submissior	ı and		
)U			

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 <u>at least three years</u> 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, <u>Michael Williams</u>, hereby certify, under penalty of law as provided in 18 Pa. C.S. S4904 (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 provaccurate and complete to the best of my knowledge and belief.	rided by me in this closure report (Section III) is true,
A Source of the Source of the Knowledge and Soliet.	
Mark	7/7/97
Signature of Person Performing Site Assessment	Date

Project Manager Clayton Services Corporation

Title of Person Performing Site Assessment Name of Company Performing Site Assessment

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

UNDERGROUND STORAGE TANK SYSTEM 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

A.	Prov	vide der ountere				
	Bed	rock <u></u>	A feet below land surface	Water NA fe	eet below land surface	
В.	Provide Length of <i>PIPING</i> <u>IF</u> piping was closed-in-place (write "N/A" if NOT closed-in-place). Length of piping <u>N/A</u> feet					
C.	TANK SYSTEM REMOVED FROM THE GROUND					
	•	Wes <u>ob</u>	ovious contamination observed while excavating? NO ——— Conduct confirmatory sampling ———— Sand maintenance of closure records———— Do not	see end of this se complete item C	ection for options on submission .2. below.	
		Ø	YES — Report release to DEP within 2 hours - likely source(s) (tank, piping, dispenser, spills, overfills) — ELEGATED FREADINGS. Appealed to	Describ	e contamination observed and - Complete item C.2. below. TED FROM TANK GOS Dispor	NSCR
	2)	Was co	ontamination <u>localized</u> (within three feet of the tank systenination)?	m in every direc	tion with no obvious water	
		X	YES ——— Remove or remediate contaminated soil See end of this section for options on submission and Indemnification Fund (717-787-0763).	Condi maintenance o	uct confirmatory sampling f closure records Call	
			NO ——— Continue interim remedial actions — submission and maintenance of closure records ————	See end Call Indem	t of this section for options on nification Fund (717-787-0763).	
D.	TAI	NK SYS	TEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE	1		
	Wa	NO main	us contamination observed during sampling, boring or as Conduct confirmatory sampling ———— See entenance of closure records.	d of this section	for options on submission and	
		sourd See	Report release to DEP within 2 hours ces (i.e., tank, piping, dispenser, spills, overfills): end of this section for options on submission and mnification Fund (717-787-0763).		INDE WILL COLLECTIVE GROOM	•

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 <u>at least three years</u> 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, <u>Michael Williams</u>, hereby certify, under penalty of law as provided in 18 Pa. C.S. S4904 (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 accurate and complete to the best of my knowledge and bel	ation provided by me in this closure report (Section III) is true, ief.
Mal	7 <i>/</i> 7/97
Signature of Person Performing Site Assessment	Date
Project Manager	Clayton Services Corporation
Title of Person Performing Site Assessment	Name of Company Performing Site Assessment

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

UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

SECTION III. Site Assessment Information

Tank Registration # <u>OOS</u> (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)

Facility ID Number

A.	ence	ountere	· /	,
	Bed	rock _	A feet below land surface	Water $\frac{\mathcal{P}/A}{A}$ feet below land surface
В.	Prov Len	vide Lei gth of p	ngth of <i>PIPING</i> <u>IF</u> piping was closed-in-place (write "N/A iping <u>시</u> A feet	" if NOT closed-in-place).
C.	TAN	IK SYS	TEM REMOVED FROM THE GROUND	
	1)	Was <u>ot</u>	ovious contamination observed while excavating?	
			NO Conduct confirmatory sampling Sand maintenance of closure records Do not	See end of this section for options on submission complete item C.2. below.
		×	YES ——— Report release to DEP within 2 hours likely source(s) (tank, piping, dispenser, spills, overfills) — WEEP holes in TANK SEAMS	Describe contamination observed and Complete item C.2. below.
			ontamination <u>localized</u> (within three feet of the tank systenination)?	
	-	X	YES ——— Remove or remediate contaminated soil See end of this section for options on submission and Indemnification Fund (717-787-0763).	Conduct confirmatory sampling d maintenance of closure records Call
			NO Continue interim remedial actionssubmission and maintenance of closure records	See end of this section for options on Call Indemnification Fund (717-787-0763).
D.	TA	VK SYS	STEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE	<u> </u>
	Wa	s <u>obvio</u>	us contamination observed during sampling, boring or a	ssessing water depths?
		NO main	Conduct confirmatory sampling See eletenance of closure records.	nd of this section for options on submission and
		sourd See	Report release to DEP within 2 hours ces (i.e., tank, piping, dispenser, spills, overfills): end of this section for options on submission and mnification Fund (717-787-0763).	Collidite Alti conscite action

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 <u>at least three years</u> 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, Michael Williams, hereby certify, under penalty of law as provided in 18 Pa. C.S. S4904 (relating to unsworn

	ed the site assessment activities associated with the closure tion provided by me in this closure report (Section III) is true, ef.
All.	7 <i>/71</i> 97
Signature of Person Performing Site Assessment	Date
Project Manager	Clayton Services Corporation
Title of Person Performing Site Assessment	Name of Company Performing Site Assessment

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

UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

SECTION III. Site Assessment Information

Tank Registration # <u>cob</u> (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)

Facility ID Number

A	Prov	ide den	oth of BEDROCK and WATER <u>IF</u> encountered during ex	cavation or soil boring (write "N/A" if NOT
		untered	d).	,
	Bedi	ock 🔑	A feet below land surface	Water N/A feet below land surface
В.			ngth of <i>PIPING <u>IF</u> piping was closed-in-place (write "N/A</i> iping <u>N/A</u> feet	'if NOT closed-in-place).
C.	TAN	K SYS	TEM REMOVED FROM THE GROUND	
	1) 1	Was ob	ovious contamination observed while excavating?	
	•		NO Conduct confirmatory sampling Sand maintenance of closure records Do not	see end of this section for options on submission complete item C.2. below.
		X	YES ——— Report release to DEP within 2 hours - likely source(s) (tank, piping, dispenser, spills, overfills) — Holes in bottom of TANK.	Describe contamination observed and Complete item C.2, below.
			ontamination <u>localized</u> (within three feet of the tank systenination)?	m in every direction with no obvious water
		X	YES ——— Remove or remediate contaminated soil See end of this section for options on submission and Indemnification Fund (717-787-0763).	Conduct confirmatory sampling i maintenance of closure records Call
			NO Continue interim remedial actions submission and maintenance of closure records	 See end of this section for options on Call Indemnification Fund (717-787-0763).
Đ.	AAT	ik sys	TEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE	<u> </u>
	Wa: □	NO -	us contamination observed during sampling, boring or as Conduct confirmatory sampling See er tenance of closure records.	ssessing water depths? Indicate the depth of the depth of this section for options on submission and
		sourd See	Report release to DEP within 2 hours ces (i.e., tank, piping, dispenser, spills, overfills): end of this section for options on submission and mnification Fund (717-787-0763).	Couline Atti confective action

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 <u>at least three years</u> 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, <u>Michael Williams</u>, hereby certify, under penalty of law as provided in 18 Pa. C.S. S4904 (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 accurate and complete to the best of my knowledge and bel					
Made	7/7/97				
Signature of Person Performing Site Assessment	Date				
Project Manager	Clayton Services Corporation				
Title of Person Performing Site Assessment	Name of Company Performing Site Assessment				

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

UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

SECTION III. Site Assessment Information

Tank Registration # 607 (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)

Facility ID Number

A.	Pro enc	vide de; countere	pth of <i>BEDROCK</i> and <i>WATER</i> <u>IF</u> encountered during ex id).	
	Bec	trock <u></u>	OA feet below land surface	Water N/A feet below land surface
В.	Pro Len	vide Lei igth of p	ngth of <i>PIPING</i> <u>IF</u> piping was closed-in-place (write "N/A piping <u>ゎ゚ゟ</u> feet	" if NOT closed-in-place).
C.	TAI	NK SYS	STEM REMOVED FROM THE GROUND	
	1)	Was <u>ot</u> ⊠	bvious contamination observed while excavating? NO ——— Conduct confirmatory sampling ———— Sand maintenance of closure records———— Do not	See end of this section for options on submission complete item C.2. below.
			YES Report release to DEP within 2 hours - likely source(s) (tank, piping, dispenser, spills, overfills)	Describe contamination observed and Complete item C.2. below.
	2)		ontamination <u>localized</u> (within three feet of the tank systenination)?	
			YES ——— Remove or remediate contaminated soil See end of this section for options on submission and Indemnification Fund (717-787-0763).	Conduct confirmatory sampling maintenance of closure records Call
			NO ———— Continue interim remedial actions — submission and maintenance of closure records ————	See end of this section for options on Call Indemnification Fund (717-787-0763).
D.	TA	NK SYS	STEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE	:
	Wa	NO main	ous contamination observed during sampling, boring or as Conduct confirmatory sampling See er ntenance of closure records.	nd of this section for options on submission and
		sour See	Report release to DEP within 2 hours ces (i.e., tank, piping, dispenser, spills, overfills): end of this section for options on submission and mnification Fund (717-787-0763).	Colfilling Milli Collective action

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 <u>at least three years</u> 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.

t, <u>Michael Williams</u>, hereby certify, under penalty of law as provided in 18 Pa. C.S. S4904 (relating to unsworm 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 accurate and complete to the best of my knowledge and believed.					
Min	7 <i>/</i> 7 <i>/</i> 97				
Signature of Person Performing Site Assessment	Date				
Project Manager	Clayton Services Corporation				
Title of Person Performing Site Assessment	Name of Company Performing Site Assessment				

UNDERGROUND STORAGE TANK CLOSURE REPORT FORM

SAMPLE/ANALYSIS INFORMATION (Attachment for Section III)

LOCATION: Herr Foods Inc., Route 272 & Herr Drive, Nottingham, PA

SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
007-1	BENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	5/28/97	5/30/97
007-1	TOLUENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	5/28/97	5/30/97
007-1	XYLENES	EPA 8021A	SOIL	<.005ppm	.005 ppm	5/28/97	5/30/97
007-1	NAPHTHALENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	5/28/97	5/30/97
007-1	PYRENE	EPA 8270B	SOIL	<.03 ppm	.03 ppm	5/28/97	6/12/97
007-1	BENZO- FLUORANTHENE	EPA 8270B	SOIL	<.03 ppm	.03 ppm	5/28/97	6/12/97
007-1	BENZO- ANTHRACENE	EPA 8270B	SOIL	<.03 ppm	.03 ppm	5/28/97	6/12/97
007-1	BENZOPYRENE	EPA 8270B	SOIL	<.03 ppm	.03 ppm	5/28/97	6/12/97
007-1	INDENOPYRENE	EPA 8270B	SOIL	<.03 ppm	.03 ppm	5/28/97	6/12/97
007-1	BENZOPERYLENE	EPA 8270B	SOIL	<.03 ppm	.03 ppm	5/28/97	6/12/97
007-1	LEAD (TOTAL)	7421	SOIL	< 6 ppm	6 ppm	5/28/97	6/5/97

SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLI ANALYZ
007-2	BENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	5/28/97	5/30/97
007-2	TOLUENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	5/28/97	5/30/97
007-2	XYLENES	EPA 8021A	SOIL	<.005ppm	.005 ppm	5/28/97	5/30/97
007-2	NAPHTHALENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	5/28/97	5/30/97
007-2	PYRENE	EPA 8270B	SOIL	<.03 ppm	.03 ppm	5/28/97	6/12/97
007-2	BENZO- FLUORANTHENE	EPA 8270B	SOIL	<.03 ppm	.03 ppm	5/28/97	6/12/9
007-2	BENZO- ANTHRACENE	EPA 8270B	SOIL	<.03 ppm	.03 ppm	5/28/97	6/12/97
007-2	BENZOPYRENE	EPA 8270B	SOIL	<.03 ppm	.03 ppm	5/28/97	6/12/97
007-2	INDENOPYRENE	EPA 8270B	SOIL	<.03 ppm	.03 ppm	5/28/97	6/12/9
007-2	BENZOPERYLENE	EPA 8270B	SOIL	<.03 ppm	.03 ppm	5/28/97	6/12/97
007-2	LEAD (TOTAL)	7421	SOIL	14 ppm	6 ppm	5/28/97	6/5/97

SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
007-P	BENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	5/28/97	5/30/97
007-P	TOLUENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	5/28/97	5/30/97
007-P	XYLENES	EPA 8021A	SOIL	<.005ppm	.005 ppm	5/28/97	5/30/97
007-P	NAPHTHALENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	5/28/97	5/30/97
007-P	PYRENE	EPA 8270B	SOIL	<.03 ppm	.03 ppm	5/28/97	6/12/97
007-P	BENZO- FLUORANTHENE	EPA 8270B	SOIL	<.03 ppm	.03 ppm	5/28/97	6/12/97
007-P	BENZO- ANTHRACENE	EPA 8270B	SOIL	<.03 ppm	.03 ppm	5/28/97	6/12/97
007-P	BENZOPYRENE	EPA 8270B	SOIL	<.03 ppm	.03 ppm	5/28/97	6/12/97
007-P	INDENOPYRENE	EPA 8270B	SOIL	<.03 ppm	.03 ppm	5/28/97	6/12/97
007-P	BENZOPERYLENE	EPA 8270B	SOIL	<.03 ppm	.03 ppm	5/28/97	6/12/97
007-P	LEAD (TOTAL)	7421	SOIL	7 ppm	6 ррт	5/28/97	6/5/97

							
SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
003-1	ТРН	EPA 418.1	SOIL	<5 ppm	5 ppm	6/4/97	6/6/97
SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
003-2	ТРН	EPA 418.1	SOIL	<5 ppm	5 ppm	6/4/97	6/6/97
SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
003-3	TPH	EPA 418.1	SOIL	<5 ppm	5 ppm	6/4/97	6/6/97
SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
003-P	ТРН	EPA 418.1	SOIL	<5 ppm	5 ppm	6/4/97	6/6/97
SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
004-1	BENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
004-1	TOLUENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
004-1	ETHYLBENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
004-1	XYLENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
004-1	ISOPROPYLBENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
004-1	MTBE	EPA 8021A	SOIL	.014ppm	.005 ppm	6/4/97	6/13/97
004-1	NAPHTHALENE	EPA 8021A	SOIL	.024ppm	.005 ppm	6/4/97	6/13/97
004-1	BENZOANTHRACENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
004-1	BENZOPYRENE	EPA 8020	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97

SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
004-2	BENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
004-2	TOLUENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
004-2	ETHYLBENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
004-2	XYLENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
004-2	ISOPROPYLBENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
004-2	MTBE	EPA 8021A	SOIL	2.8 ppm	.005 ppm	6/4/97	6/13/97
004-2	NAPHTHALENE	EPA 8021A	SOIL	.031 ppm	.005 ppm	6/4/97	6/13/97
004-2	BENZOANTHRACENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
004-2	BENZOPYRENE	EPA 8020	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
		<u> </u>			<u> </u>	<u> </u>	<u> </u>
SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
N	PARAMETER BENZENE		MEDIA		LIMIT	SAMPLE	SAMPLE
ID		METHOD		(units)	LIMIT (units)	SAMPLE TAKEN	SAMPLE ANALYZE
ID 004-3	BENZENE	METHOD EPA 8021A	SOIL	(units)	LIMIT (units) .005 ppm	SAMPLE TAKEN 6/4/97	SAMPLE ANALYZE 6/13/97
004-3 004-3	BENZENE TOLUENE	METHOD EPA 8021A EPA 8021A	SOIL	(units) <.005ppm <.005ppm	LIMIT (units) .005 ppm .005 ppm	SAMPLE TAKEN 6/4/97 6/4/97	SAMPLE ANALYZE 6/13/97 6/13/97
004-3 004-3 004-3	BENZENE TOLUENE ETHYLBENZENE	METHOD EPA 8021A EPA 8021A EPA 8021A	SOIL SOIL SOIL	(units) <.005ppm <.005ppm <.005ppm	LIMIT (units) .005 ppm .005 ppm .005 ppm	SAMPLE TAKEN 6/4/97 6/4/97	SAMPLE ANALYZE 6/13/97 6/13/97
004-3 004-3 004-3 004-3	BENZENE TOLUENE ETHYLBENZENE XYLENE	METHOD EPA 8021A EPA 8021A EPA 8021A EPA 8021A	SOIL SOIL SOIL	<.005ppm <.005ppm <.005ppm <.005ppm <.005ppm	LIMIT (units) .005 ppm .005 ppm .005 ppm	SAMPLE TAKEN 6/4/97 6/4/97 6/4/97	SAMPLE ANALYZE 6/13/97 6/13/97 6/13/97
004-3 004-3 004-3 004-3 004-3	BENZENE TOLUENE ETHYLBENZENE XYLENE ISOPROPYLBENZENE	METHOD EPA 8021A EPA 8021A EPA 8021A EPA 8021A EPA 8021A	SOIL SOIL SOIL SOIL	<.005ppm <.005ppm <.005ppm <.005ppm <.005ppm <.005ppm	LIMIT (units) .005 ppm .005 ppm .005 ppm .005 ppm	SAMPLE TAKEN 6/4/97 6/4/97 6/4/97 6/4/97	SAMPLE ANALYZE 6/13/97 6/13/97 6/13/97 6/13/97
004-3 004-3 004-3 004-3 004-3	BENZENE TOLUENE ETHYLBENZENE XYLENE ISOPROPYLBENZENE MTBE	METHOD EPA 8021A EPA 8021A EPA 8021A EPA 8021A EPA 8021A EPA 8021A	SOIL SOIL SOIL SOIL SOIL	<.005ppm <.005ppm <.005ppm <.005ppm <.005ppm <.005ppm <.004ppm	LIMIT (units) .005 ppm .005 ppm .005 ppm .005 ppm .005 ppm	SAMPLE TAKEN 6/4/97 6/4/97 6/4/97 6/4/97	SAMPLE ANALYZE 6/13/97 6/13/97 6/13/97 6/13/97 6/13/97

SAMPLE	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
005-1	BENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/9/97
005-1	TOLUENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/9/97
005-1	ETHYLBENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/9/97
005-1	XYLENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/9/97
005-1	ISOPROPYLBENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/9/97
005-1	MTBE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/9/97
005-1	NAPHTHALENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/9/97
005-1	BENZOANTHRACENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
005-1	BENZOPYRENE	EPA 8020	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97

SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
005-2	BENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
005-2	TOLUENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
005-2	ETHYLBENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
005-2	XYLENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
005-2	ISOPROPYLBENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
005-2	MTBE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
005-2	NAPHTHALENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
005-2	BENZOANTHRACENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
005-2	BENZOPYRENE	EPA 8020	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97

SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
005-3	BENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
005-3	TOLUENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
005-3	ETHYLBENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
005-3	XYLENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
005-3	ISOPROPYLBENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
005-3	MTBE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
005-3	NAPHTHALENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
005-3	BENZOANTHRACENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
005-3	BENZOPYRENE	EPA 8020	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97

SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
Pl-1	BENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
Pl-1	TOLUENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
PI-1	ETHYLBENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
PI-1	XYLENE	EPA 8021A	SOIL	.007 ppm	.005 ppm	6/4/97	6/13/97
Pl-1	ISOPROPYLBENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
PI-1	MTBE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
PI-1	NAPHTHALENE	EPA 8021A	SOIL	.027 ppm	.005 ppm	6/4/97	6/13/97
PI-1	BENZOANTHRACENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
Pl-1	BENZOPYRENE	EPA 8020	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97

SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
PI-4	BENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
PI-4	TOLUENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
PI-4	ETHYLBENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
PI-4	XYLENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
PI-4	ISOPROPYLBENZENE	EPA 8021A	SOIL	<.005ppm	.005 ppm	6/4/97	6/13/97
PI-4	MTBE	EPA 8021A	SOIL	.019 ppm	.005 ppm	6/4/97	6/13/97
PI-4	NAPHTHALENE	EPA 8021A	SOIL	.009 ppm	.005 ppm	6/4/97	6/13/97
PI-4	BENZOANTHRACENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
PI-4	BENZOPYRENE	EPA 8020	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97

SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
PI-5	BENZENE	EPA 8021A	SOIL	.007 ppm	.005 ppm	6/4/97	6/13/97
Pl-5	TOLUENE	EPA 8021A	SOIL	.082 ppm	.005 ppm	6/4/97	6/13/97
Pl-5	ETHYLBENZENE	EPA 8021A	SOIL	.540 ppm	.005 ppm	6/4/97	6/13/97
PI-5	XYLENE	EPA 8021A	SOIL	5.70 ppm	.005 ppm	6/4/97	6/13/97
Pl-5	ISOPROPYLBENZENE	EPA 8021A	SOIL	.660 ppm	.005 ppm	6/4/97	6/13/97
Pl-5	MTBE	EPA 8021A	SOIL	2.30 ppm	.005 ppm	6/4/97	6/13/97
PI-5	NAPHTHALENE	EPA 8021A	SOIL	9.80 ppm	.005 ppm	6/4/97	6/13/97
Pl-5	BENZOANTHRACENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
PI-5	BENZOPYRENE	EPA 8020	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97

SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
PI-6	BENZENE	EPA 8021A	SOIL	.010 ppm	.005 ppm	6/4/97	6/13/97
PI-6	TOLUENE	EPA 8021A	SOIL	.010 ppm	.005 ppm	6/4/97	6/13/97
PI-6	ETHYLBENZENE	EPA 8021A	SOIL	.049 ppm	.005 ppm	6/4/97	6/13/97
Pi-6	XYLENE	EPA 8021A	SOIL	.480 ppm	.005 ppm	6/4/97	6/13/97
PI-6	ISOPROPYLBENZENE	EPA 8021A	SOIL	.021 ppm	.005 ppm	6/4/97	6/13/97
PI-6	MTBE	EPA 8021A	SOIL	4.40 ppm	.005 ppm	6/4/97	6/13/97
PI-6	NAPHTHALENE	EPA 8021A	SOIL	1.20 ppm	,005 ppm	6/4/97	6/13/97
PI-6	BENZOANTHRACENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
PI-6	BENZOPYRENE	EPA 8020	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97

SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
Pl-2	NAPHTHALENE	EPA 8270	SOIL	<.03 PPM	.03 ppm	6/4/97	6/12/97
Pl-2	FLUORENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
Pl-2	PHENANTHRENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
PI-2	BENZOANTHRACENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
PI-2	BENZOPYRENE	EPA 8020	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97

SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
006-1	NAPHTHALENE	EPA 8270	SOIL	<.03 PPM	.03 ppm	6/4/97	6/12/97
006-1	FLUORENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
006-1	PHENANTHRENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
006-1	BENZOANTHRACENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
006-1	BENZOPYRENE	EPA 8020	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97

SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
006-2	NAPHTHALENE	EPA 8270	SOIL	<.03 PPM	.03 ppm	6/4/97	6/12/97
006-2	FLUORENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
006-2	PHENANTHRENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
006-2	BENZOANTHRACENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
006-2	BENZOPYRENE	EPA 8020	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97

SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
006-3	NAPHTHALENE	EPA 8270	SOIL	<.03 PPM	.03 ppm	6/4/97	6/12/97
006-3	FLUORENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
006-3	PHENANTHRENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
006-3	BENZOANTHRACENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
006-3	BENZOPYRENE	EPA 8020	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97

SAMPLE ID	PARAMETER	ANALYTIC METHOD	MEDIA	RESULTS (units)	DETECTION LIMIT (units)	DATE SAMPLE TAKEN	DATE SAMPLE ANALYZE
PI-3	NAPHTHALENE	EPA 8270	SOIL	.08 PPM	.03 ppm	6/4/97	6/12/97
PI-3	FLUORENE	EPA 8270	SOIL	.23 ppm	.03 ppm	6/4/97	6/12/97
Pi-3	PHENANTHRENE	EPA 8270	SOIL	.33 ppm	.03 ppm	6/4/97	6/12/97
PI-3	BENZOANTHRACENE	EPA 8270	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97
Pl-3	BENZOPYRENE	EPA 8020	SOIL	<.03 ppm	.03 ppm	6/4/97	6/12/97



P.O. Box 15212 Rio Rancho, NM 87174 (505) 892–1666 (800) 237–4532 Fax (505) 892–9601

ILFC Laboratory Report

for

Clayton Services Corp.

1201 Bethlehem Pike, Suite 105 North Wales PA

(215) 362-6400

Project No:

Not Given

Project Location:

Herr Foods Inc. Nottingham, PA

Sampler:

Michael Williams

(215) 362-6400

Date Sampled:

5/28/97

Date Received:

5/30/97

Date Reported:

06/16/1997

Report #:

97091

Sample Date:

5/28/97

Clayton Services Corp.

007-1

Registered Date/Time: 05/30/1997 10:57:06 AM

Herr Foods Inc.

Batch #

97091

Soil

ILFC#

10419

EPA	Method	827	OB
	1		

	FLV Memon ovin		· · · · · · · · · · · · · · · · · · ·	A
Analyte	MDL	Concentration	Date Analyzed	Analyst
Naphthalene	0.03 mg/kg	0.12	6/12/97	Kay Baker
Fluorene	0.03 mg/kg	<0.03		
Phenanthrene	0.03 mg/kg	<0.03		
Benzo(a)anthracene	0.03 mg/kg	<0.03		
Benzo(a)pyrene	0.03 mg/kg	<0.03		
Pyrene	0.03 mg/kg	<0.03		
Benzo(b)fluoranthene	0.03 mg/kg	<0.03		<u> </u>
Indeno(123-cd)pyrene	0.03 mg/kg	<0.03		
Benzo(ghi)perylene	0.03 mg/kg	<0.03		<u> </u>

Total Lead - Method 6010

	(Otal Dec	d - Mediod oc		T
Analyte	Concentration	MDL	Date Analyzed	Analyst
	< 6	6 mg/kg	6/6/97	Robert Furlong

Percent Moisture

% Moisture	Date Analyzed	Analyst
16.4	6/5/97	Cindy Logan

Waste Motor Oil (PA)-Method 8260A

Analyte	Result	MDL	Units	E
Benzene	<5	5	ug/kg (ppb)	
Toluene	<5	5	ug/kg (ppb)	
Xylenes	<5	5	ug/kg (ppb)	
Naphthalene	<5	5	ug/kg (ppb)	
, (5	ug/kg (ppb)	
Analyst	Kay Baker	5	ug/kg (ppb)	
Date Analyzed	5/30/97	5	ug/kg (ppb)	

Sample Date:

5/28/97

Clayton Services Corp.

007-2

Registered Date/Time: 05/30/1997 10:57:23 AM

Herr Foods inc.

Batch #

97091

Soil

ILFC #

10420

EPA Method 8270B

EPA menion 64100					
Analyte	MDL	Concentration	Date Analyzed	Analyst	
Nachthalene	0.03 mg/kg	<0.03	6/12/97	Kay Baker ·	
Fluorene	0.03 mg/kg	<0.03			
Phenanthrene	0.03 mg/kg	<0.03			
Benzo(a)anthracene	0.03 mg/kg	<0.03			
Benzo(a)pyrene	0.03 mg/kg	<0.03			
Pyrene	0.03 mg/kg	<0.03			
Benzo(b)fluoranthene	0.03 mg/kg	<0.03	1		
Indeno(123-cd)pyrene	0.03 mg/kg	<0.03			
Benzo(ghi)perylene	0.03 mg/kg	<0.03			

Total Lead - Method 6010

Analyte	Concentration	MDL	Date Analyzed	Analyst
ead	14	6 mg/kg	6/6/97	Robert Furlang

Percent Moisture

% Moisture	Date Analyzed	Analyst
11.8	6/5/97	Cindy Logan

Waste Motor Oil (PA)-Method 8260A

Analyte	Result	MDL	Units	E
Benzene	<5	5	ug/kg (ppb)	
Toluene	<5	5	ug/kg (ppb)	
Xylenes	<5	5	ug/kg (ppb)	
Naphthalene	<5	5	ug/kg (ppb)	
		5	ug/kg (ppb)	
Analyst	Kay Baker	5	ug/kg (ppb)	
Date Analyzed	5/30/97	5	ug/kg (ppb)	

Sample Date:

5/28/97

Clayton Services Corp.

007-P

Registered Date/Time:

05/30/1997 10:57:31 AM

Herr Foods Inc.

Batch#

97091

Soil

ILFC#

10421

EPA Method 8270B

ELV Menion Av				· ·	
Analyte	MDL	Concentration	Date Analyzed	Analyst	
Naphthalene	0.03 mg/kg	<0.03	6/12/97	Kay Baker	
Fluorene	0.03 mg/kg	<0.03			
Phenanthrene	0.03 mg/kg	0.07			
Benzo(a)anthracene	0.03 mg/kg	<0.03			
Benzo(a)pyrene	0.03 mg/kg	<0.03			
Pyrene	0.03 mg/kg	<0.03			
Benzo(b)fluoranthene	0.03 mg/kg	<0.03		<u> </u>	
· · · · · · · · · · · · · · · · · · ·	0.03 mg/kg	<0.03			
	0.03 mg/kg	<0.03			
Indeno(123-cd)pyrene Benzo(ghi)perylene					

Total Lead - Method 6010

ļ	Analyte	Concentration	MOL	Date Analyzed	Analyst
	Lead	7	6 mg/kg	6/6/97	Robert Furlong

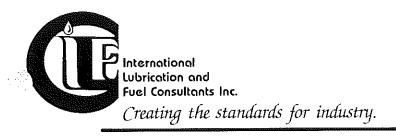
Percent Moisture

[% Moisture	Date Analyzed	Analyst	
ļ	15.8	6/5/97	Cindy Logan	

Waste Motor Oil (PA)-Method 8260A

	***************************************	<u> </u>		
Analyte	Result	MDL	Units	E
Benzene	<\$	5	ug/kg (ppb)	
Toluene	<5	5	ug/kg (ppb)	
Xylenes	<5	5	ug/kg (ppb)	
Naphthalene	<5	5	ug/kg (ppb)	
		5	ug/kg (ppb)	
Analyst	Kay Baker	5	ug/kg (ppb)	
Date Analyzed	5/30/97	5	ug/kg (ppb)	
		the same of the sa		

15047



P.O. Box 15212 Rio Rancho, NM 87174 (505) 892–1666 (800) 237–4532 Fax (505) 892–9601

ILFC Laboratory Report

for

Clayton Services Corp.

1201 Bethlehem Pike, Suite 105 North Wales PA

(215) 362-6400

Project No:

Not Given

Project Location:

Herr Foods, Inc. Nottingham, PA

Sampler:

Michael Williams

(215) 362-6400

Date Sampled:

6/4/97

Date Received:

6/6/97

Date Reported:

06/16/1997

Report #:

97094

Sample Date:

6/4/97

Clayton Services Corp.

Registered Date/Time:

06/06/1997 11:18:36 AM

Herr Foods, Inc.

003-1

:ch#

97094

Soil

ILFC#

10434

Method: EPA 418.1

Analysis	MDL	Concentration	Date Analyzed	Analyst
TPH	5 mg/kg	<5	6/6/97	Cindy Logan

Sample Date:

6/4/97

Clayton Services Corp.

Registered Date/Time:

06/06/1997 11:18:43 AM

Herr Foods, Inc.

003-2

ch #

97094

Soil

ILFC#

10435

Method: EPA 418.1

Analysis	MDL	Concentration	Date Analyzed	Analyst
TPH	5 mg/kg	<5	6/6/97	Cindy Logan

Sample Date:

6/4/97

Clayton Services Corp.

Registered Date/Time:

06/06/1997 11:18:49 AM

Herr Foods, Inc.

003-3

.ch#

97094

Soil

ILFC#

10436

Method: EPA 418.1

Analysis	MDL	Concentration	Date Analyzed	Analyst
TPH	5 mg/kg	<5	6/6/97	Cindy Logan

Sample Date:

6/4/97

Clayton Services Corp.

Registered Date/Time: 06/06/1997 11:19:12 AM

Herr Foods, Inc.

003-P

ch #

97094

Soil

ILFC#

10437

Method: EPA 418.1

Analysis	MDL	Concentration	Date Analyzed	Analyst
TPH	5 mg/kg	<5	6/6/97	Cindy Logan

Sample Date:

6/4/97

Clayton Services Corp.

Registered Date/Time:

06/06/1997 11:29:10 AM

Herr Foods, Inc.

004-1

ch #

97094

Soil

ILFC#

10438

Unleaded Gasoline (PA)

	Officaucu Gasi	onne (i A)	
Analyte	Result	MDL	Units
Benzene	<5	5	ug/kg (ppb)
Toluene	<5	5	ug/kg (ppb)
Ethylbenzene	<5	5 .	ug/kg (ppb)
m,p-Xylene	<5	5	ug/kg (ppb)
o-Xylene	<5	5	ug/kg (ppb)
MTBE	14	5	ug/kg (ppb)
Isopropylbenzene	<5	5	ug/kg (ppb)
Naphthalene	24	5	ug/kg (ppb)
Data Analyzed	6/13/97		
Analyst	Kay Baker		

Percent Moisture

% Moisture	Date Analyzed	Analyst
13	6/9/97	Cindy Logan

8270PA (Gasoline)

Analyte	MDL	Concentration	Date Analyzed	Analyst
Benzo(a)anthracene	0.03 mg/kg	<0.03	6/12/97	Kay Baker
Benzo(a)pyrene	0.03 mg/kg	<0.03		

Sample Date:

6/4/97

Clayton Services Corp.

Registered Date/Time:

06/06/1997 11:29:29 AM

Herr Foods, Inc.

004-2

ch #

97094

Soil

ILFC#

10439

Unleaded Gasoline (PA)

	Officaded Cast	Jillio (1 77)	
Analyte	Result	MDL	Units
Benzene	<5	5	ug/kg (ppb)
Toluene	<5	5	ug/kg (ppb)
Ethylbenzene	<5	5	ug/kg (ppb)
m,p-Xylene	<5	5	ug/kg (ppb)
o-Xylene	<5	5	ug/kg (ppb)
MTBE	2800	5	ug/kg (ppb)
Isopropylbenzene	<5	5	ug/kg (ppb)
Naphthalene	31	5	ug/kg (ppb)
Data Analyzed	6/13/97		
Analyst	Kay Baker		

Percent Moisture

% Moisture	Date Analyzed	Analyst
21.8	6/9/97	Cindy Logan

8270PA (Gasoline)

Analyte	MDL	Concentration	Date Analyzed	Analyst	
Benzo(a)anthracene	0.03 mg/kg	<0.03	6/12/97	Kay Baker	
Benzo(a)pyrene	0.03 mg/kg	<0.03			

Sample Date:

6/4/97

Clayton Services Corp.

Registered Date/Time: 06/06/1997 11:29:36 AM

Herr Foods, Inc.

004-3

ch #

97094

Soil

ILFC#

10440

Unleaded Gasoline (PA)

		·····	
Analyte	Result	MDL	Units
Benzene	<5	5	ug/kg (ppb)
Toluene	<5	5	ug/kg (ppb)
Ethylbenzene	<5	5	ug/kg (ppb)
m,p-Xylene	<5	5	ug/kg (ppb)
o-Xylene	<5	5	ug/kg (ppb)
MTBE	44	5	ug/kg (ppb)
isopropylbenzene	<5	5	ug/kg (ppb)
Naphthalene	18	5	ug/kg (ppb)
Data Analyzed	6/13/97		
Analyst	Kay Baker		

Percent Moisture

% Moisture	Date Analyzed	Analyst
14.1	6/9/97	Cindy Logan

8270PA (Gasoline)

Analyte	MDL	Concentration	Date Analyzed	Analyst
Benzo(a)anthracene	0.03 mg/kg	<0.03	6/12/97	Kay Baker
Benzo(a)pyrene	0.03 mg/kg	<0.03		

Sample Date:

6/4/97

Clayton Services Corp.

Registered Date/Time:

06/06/1997 11:29:42 AM

Herr Foods, Inc.

005-1

<u>ch#</u>

97094

Soil

ILFC#

10441

Unleaded Gasoline (PA)

	Officaded Cast	311110 (1.74)	
Analyte	Result	MDL	Units
Benzene	<5	5	ug/kg (ppb)
Toluene	<5	5	ug/kg (ppb)
Ethylbenzene	<5	5	ug/kg (ppb)
m,p-Xylene	<5	5	ug/kg (ppb)
o-Xylene	<5	5	ug/kg (ppb)
MTBE	<5	5	ug/kg (ppb)
Isopropylbenzene	<5	5	ug/kg (ppb)
Naphthalene	<5	5	ug/kg (ppb)
Data Analyzed	6/9/97		
Analyst	Kay Baker		*

Percent Moisture

% Moisture	Date Analyzed	Analyst
17.0		Cindy Logan

8270PA (Gasoline)

Analyte	MDL	Concentration	Date Analyzed	Analyst
Benzo(a)anthracene	0.03 mg/kg	<0.03	6/12/97	Kay Baker
Benzo(a)pyrene	0.03 mg/kg	<0.03		

Sample Date:

6/4/97

Clayton Services Corp.

Registered Date/Time:

06/06/1997 11:29:48 AM

Herr Foods, Inc.

005-2

ch#

97094

Soil

ILFC#

10442

Unleaded Gasoline (PA)

	Officadoa OLO	31110 (1.74)	
Analyte	Result	MDL	Units
Benzene	<5	5	ug/kg (ppb)
Toluene	<5	5	ug/kg (ppb)
Ethylbenzene	<5	5	ug/kg (ppb)
m,p-Xylene	<5	5	ug/kg (ppb)
o-Xylene	<5	5	ug/kg (ppb)
MTBE	<5	5	ug/kg (ppb)
Isopropylbenzene	<5	5	ug/kg (ppb)
Naphthalene	<5	5	ug/kg (ppb)
Data Analyzed	6/13/97		
Analyst	Kay Baker		

Percent Moisture

% Moisture	Date Analyzed	Analyst
14.6	6/9/97	Cindy Logan

8270PA (Gasoline)

Analyte	MDL	Concentration	Date Analyzed	Analyst
Benzo(a)anthracene	0.03 mg/kg	<0.03	6/12/97	Kay Baker
Benzo(a)pyrene	0.03 mg/kg	<0.03		

Sample Date:

6/4/97

Clayton Services Corp.

Registered Date/Time:

06/06/1997 11:29:54 AM

Herr Foods, Inc.

005-3

ch #

97094

Soil

ILFC#

10443

Unleaded Gasoline (PA)

and the second s	Officaded Cast	Jiiio (1 / 1)	
Analyte	Result	MDL	Units
Benzene	<5	5	ug/kg (ppb)
Toluene	<5	5	ug/kg (ppb)
Ethylbenzene	<5	5	ug/kg (ppb)
m,p-Xylene	<5	5	ug/kg (ppb)
o-Xylene	<5	5	ug/kg (ppb)
MTBE	<5	5	ug/kg (ppb)
sopropylbenzene	<5	5	ug/kg (ppb)
Naphthalene	<5	5	ug/kg (ppb)
Data Analyzed	6/13/97		
Analyst	Kay Baker		

Percent Moisture

% Moisture	Date Analyzed	Analyst
15.4	6/9/97	Cindy Logan

8270PA (Gasoline)

Analyte	MDL	Concentration	Date Analyzed	Analyst
Benzo(a)anthracene	0.03 mg/kg	<0.03	6/12/97	Kay Baker
Benzo(a)pyrene	0.03 mg/kg	<0.03		

Sample Date:

6/4/97

Clayton Services Corp.

PI-1

Registered Date/Time:

06/06/1997 11:30:31 AM

Herr Foods, Inc.

ch#

97094

Soil

ILFC#

10447

Unleaded Gasoline (PA)

	Unleaded Gast	onne (i A)	
Analyte	Result	MDL	Units
Benzene	<5	5	ug/kg (ppb)
Toluene	<5	5	ug/kg (ppb)
Ethylbenzene	<5	5	ug/kg (ppb)
m,p-Xylene	7.0	5	ug/kg (ppb)
o-Xylene	<5	5	ug/kg (ppb)
MTBE	<5	5	ug/kg (ppb)
Isopropylbenzene	<5	5	ug/kg (ppb)
Naphthalene	27	5	ug/kg (ppb)
Data Analyzed	6/13/97		
Analyst	Kay Baker		

Percent Moisture

	% Moisture	Date Analyzed	Analyst
1	9.0	6/10/97	Cindy Logan

8270PA (Gasoline)

Analyte	MDL	Concentration	Date Analyzed	Analyst
Benzo(a)anthracene	0.03 mg/kg	<0.03	6/12/97	Kay Baker
Benzo(a)pyrene	0.03 mg/kg	<0.03		

Sample Date:

6/4/97

Clayton Services Corp.

PI-4

Registered Date/Time: 06/06/1997 11:30:02 AM

Herr Foods, Inc.

<u>ch #</u>

97094

Soil

ILFC#

10444

Unleaded Gasoline (PA)

Analyte	Result	MDL	Units
Benzene	<5	5	ug/kg (ppb)
Toluene	<5	5	ug/kg (ppb)
Ethylbenzene	<5	5	ug/kg (ppb)
m,p-Xylene	<5	5	ug/kg (ppb)
o-Xylene	<5	5	ug/kg (ppb)
MTBE	19	5	ug/kg (ppb)
Isopropylbenzene	<5	5	ug/kg (ppb)
Naphthalene	9	5	ug/kg (ppb)
Data Analyzed	6/13/97		
Analyst	Kay Baker		

Percent Moisture

% Moisture	Date Analyzed	Analyst
16.0	6/9/97	Cindy Logan

8270PA (Gasoline)

Analyte	MDL	Concentration	Date Analyzed	Analyst
Benzo(a)anthracene	0.03 mg/kg	<0.03	6/12/97	Kay Baker
Benzo(a)pyrene	0.03 mg/kg	<0.03		

Sample Date:

6/4/97

Clayton Services Corp.

Registered Date/Time:

06/06/1997 11:30:08 AM

Herr Foods, Inc.

PI-5

<u>ch #</u>

97094

Soil

ILFC#

10445

Unleaded Gasoline (PA)

Officaded Cascinio (17)					
Analyte	Result	MDL	Units		
Benzene	7.0	5	ug/kg (ppb)		
Toluene	82.0	5	ug/kg (ppb)		
Ethylbenzene	540.0	5	ug/kg (ppb)		
m,p-Xylene	3200.0	5	ug/kg (ppb)		
o-Xylene	2500	· 5	ug/kg (ppb)		
MTBE	2300	5	ug/kg (ppb)		
Isopropylbenzene	660	5	ug/kg (ppb)		
Naphthalene	9800	5	ug/kg (ppb)		
Data Analyzed	6/13/97				
Analyst	Kay Baker				

Percent Moisture

% Moisture	Date Analyzed	Analyst	
18.6	6/9/97	Cindy Logan	

8270PA (Gasoline)

Analyte	MDL	Concentration	Date Analyzed	Analyst
Benzo(a)anthracene	0.03 mg/kg	<0.03	6/12/97	Kay Baker
Benzo(a)pyrene	0.03 mg/kg	<0.03		

Sample Date:

6/4/97

Clayton Services Corp.

Registered Date/Time:

06/06/1997 11:30:21 AM

Herr Foods, Inc.

PI-6

ch#

97094

Soil

ILFC#

10446

Unleaded Gasoline (PA)

Officaded Casonite (174)					
Analyte	Result	MDL	Units		
Benzene	10.0	5	ug/kg (ppb)		
Toluene	10.0	5	ug/kg (ppb)		
Ethylbenzene	49.0	5	ug/kg (ppb)		
m,p-Xylene	270.0	5	ug/kg (ppb)		
o-Xylene	210	5	ug/kg (ppb)		
MTBE	4400	5	ug/kg (ppb)		
Isopropylbenzene	21	5	ug/kg (ppb)		
Naphthalene	1200	5	ug/kg (ppb)		
Data Analyzed	6/13/97				
Analyst	Kay Baker				

Percent Moisture

% Moisture	Date Analyzed	Analyst
22.4	6/10/97	Cindy Logan

8270PA (Gasoline)

Analyte	MDL	Concentration	Date Analyzed	Analyst
Benzo(a)anthracene	0.03 mg/kg	<0.03	6/12/97	Kay Baker
Benzo(a)pyrene	0.03 mg/kg	<0.03		

Sample Date:

6/4/97

Clayton Services Corp.

Registered Date/Time:

06/06/1997 11:31:11 AM

Herr Foods, Inc.

PI-2

tch#

97094

Soil

ILFC#

10448

Percent Moisture

% Moisture	Date Analyzed	Analyst
18.3	6/10/97	Cindy Logan

EPA Method 8270B

Analyte	MDL	Concentration	Date Analyzed	Analyst
Naphthalene	0.03 mg/kg	<0.03	6/12/97	Kay Baker
Fluorene	0.03 mg/kg	<0.03		
Phenanthrene	0.03 mg/kg	<0.03		
Benzo(a)anthracene	0.03 mg/kg	<0.03		
Benzo(a)pyrene	0.03 mg/kg	<0.03		

Sample Date:

6/4/97

Clayton Services Corp.

Registered Date/Time:

06/06/1997 11:31:31 AM

Herr Foods, Inc.

006-1

ch #

97094

Soil

ILFC#

10450

Percent Moisture

% Moisture	Date Analyzed	Analyst
19.4	6/10/97	Cindy Logan

EPA Method 8270B

Analyte	MDL	Concentration	Date Analyzed	Analyst
Naphthalene	0.03 mg/kg	<0.03	6/12/97	Kay Baker
Fluorene	0.03 mg/kg	<0.03		
Phenanthrene	0.03 mg/kg	<0.03		
Benzo(a)anthracene	0.03 mg/kg	<0.03		
Benzo(a)pyrene	0.03 mg/kg	<0.03		

Sample Date:

6/4/97

Clayton Services Corp.

Registered Date/Time:

06/06/1997 11:31:38 AM

Herr Foods, Inc.

006-2

ch #

97094

Soil

ILFC#

10451

Percent Moisture

% Moisture	Date Analyzed	Analyst
20.8	6/10/97	Cindy Logan

EPA Method 8270B

Analyte	MDL	Concentration	Date Analyzed	Analyst
Naphthalene	0.03 mg/kg	<0.03	6/12/97	Kay Baker
Fluorene	0.03 mg/kg	<0.03		
Phenanthrene	0.03 mg/kg	<0.03		
Benzo(a)anthracene	0.03 mg/kg	<0.03		
Benzo(a)pyrene	0.03 mg/kg	<0.03		

Sample Date:

6/4/97

Clayton Services Corp.

Registered Date/Time:

06/06/1997 11:31:44 AM

Herr Foods, Inc.

006-3

tch#

97094

Soil

ILFC#

10452

Percent Moisture

% Moisture	Date Analyzed	Analyst
21.1	6/10/97	Cindy Logan

EPA Method 8270B

Analyte	MDL	Concentration	Date Analyzed	Analyst
Naphthalene	0.03 mg/kg	<0.03	6/12/97	Kay Baker
Fluorene	0.03 mg/kg	<0.03		
Phenanthrene	0.03 mg/kg	<0.03		
Benzo(a)anthracene	0.03 mg/kg	<0.03		
Benzo(a)pyrene	0.03 mg/kg	<0.03		

Sample Date:

6/4/97

Clayton Services Corp.

Registered Date/Time:

06/06/1997 11:31:20 AM

Herr Foods, Inc.

PI-3

:ch#

97094

Soil

ILFC#

10449

Percent Moisture

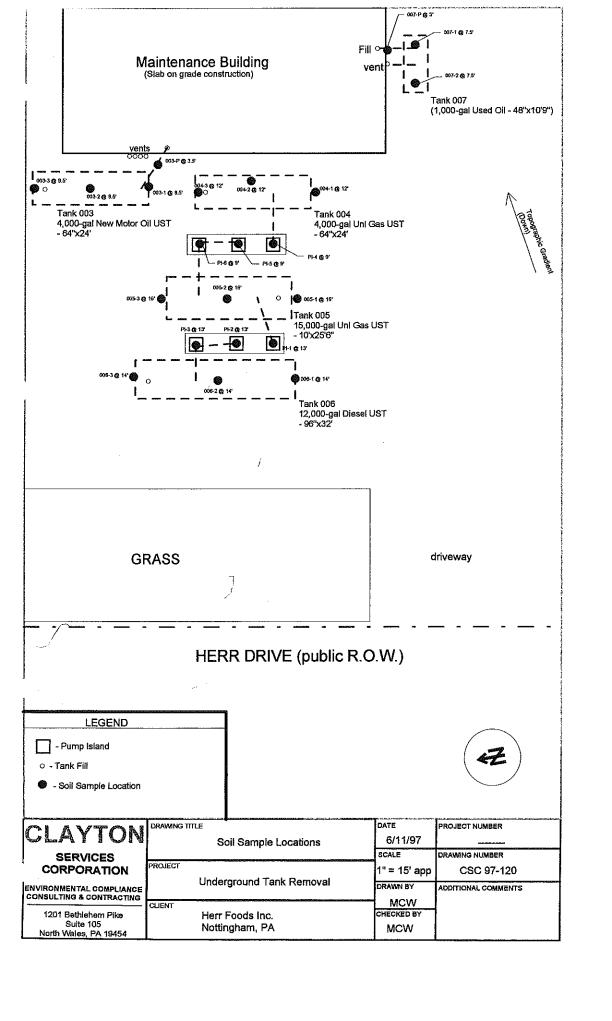
% Moisture	Date Analyzed	Analyst
22.2	6/10/97	Cindy Logan

EPA Method 8270B

Analyte	MDL	Concentration	Date Analyzed	Analyst
Naphthalene	0.03 mg/kg	0.08	6/12/97	Kay Baker
Fluorene	0.03 mg/kg	0.23		
Phenanthrene	0.03 mg/kg	0.33		
Benzo(a)anthracene	0.03 mg/kg	<0.03		
Benzo(a)pyrene	0.03 mg/kg	<0.03		

- FTPH > 500 pm, CALL MICHAEL Williams Son Possiche ADDIT. Analysis *FO No. must be included or work may be delayed. Please call 1-2 days in advance to arrange for priority or expedited service, if not samples may be delayed.* strenering Requirements X4 (Virage) atimi.Lnoitaet(Lisiae) HANDLING HANDLING XAA\alshay SOLVISE LEIDON Expedited Service (2-3 working days) Terriority One Service (24-48 hrs.) For the ANALYSIS REQUEST AND CHAIN OF CLETCON FORM OFFER - LIST MOL-POL. On ROOT. 0608 1658 0768 12120 ANALYSIS REQUES KESULTS 48AMETERS A9X Ğ Forensic Certified OP Plans Remarks: खा ア・アロコ・ア Metals Analysis (EPA VO. Total Oil & Grease (FPA NO. (RIEX & JHH (EBY MCE) 7 Line 1.8/4 (FEW ND. HHL (00 RIEX (EEA NO. (9 H Sampling Date Phone #: 215-315 # - Phone LIVE FAX #: 215-362-6481 (505) 892-1666 (800) 237-4532 DATE Rio Rancho, NM 87124 HERR FOODS 1201 Rio Rancho Blvd. Sampler Signature; Method Preserved Other aun Project Name: HAD3 Ġ, Williams - CLANTON SEEVICES CORP HJ Received æ Other 0पम्ब actung Matrix Creating the standards for industry. ()o Project No.: Lios IXX Mater Date D. DALES, PA TOTAL POR POR POR PORTINE PRODUCTION Project Manager & Company Lubrication and Fuel Consultants Inc. HERR FOODS en del lab Project Location: Relinquished by: Project PO No.: Michael 063-3 303-1 G- 400 003-Sample ID - FOO 100 365-Address 005

COSTODY FORM	OTHER HANDLING	(sysb pri	istow E-S) 	ives and viriairy for savios soives tennon Malaterev Malaterev mitatal tereog mitatal tereog				++>++>			L	+AGE 22 C
$q ^{\circ} \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \!$	ANALYSIS REQUEST	10 AMETERS.	CN ASS	Metals Analysis (1) TEP Certified OP Plans Romanic Bonesic Social Analysis (1)					Remarks:	1 0 d 1 st 3 d 2 s		d y y days de ydd yn hydr yn gan gan y daeth y
1201 Rio Rancho Blvd. Suite C Rio Rancho, NM 87124 (505) 892-1666 (800) 237-4532	Phone #: 365-362-64GC	1 タブ	ac ac	Method Preserved					Received by: Date Time	Colee 4451 8P	1 day lag 1045	
International Fuel Constitute the Standards for industry. (5	Project Manager & Company:	J. Wales, Pa 10	Project Location: HELL Focos Tax.	Sample Lab # Containers Thouse Containers A Container	- X - F I 2446 I F I - X	 1 10462 3	266-3 1043 4 X X		Relinquished by: Date Time R	May 1 8 P.	Lookel	7



CLAYTON SERVICES CORPORATION

ENVIRONMENTAL COMPLIANCE CONSULTING & CONTRACTING

1201 BETHLEHEM PIKE, SUITE 105, NORTH WALES, PA 19454 (215) 362-6400 (215) 362-6481 FAX

Project:

Herr Foods Inc.

Nottingham, PA

- 30 day Closure notification
- Ammended registration
- Notice of Reportable Release/Notice of Contamination

. (A-BWO-1): 11/93

ATTACHMENT 2

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES BUREAU OF WATER QUALITY MANAGEMENT DIVISION OF STORAGE TANKS

DATE RECEIVED:	
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UNDERGROUND STORAGE TANK CLOSURE NOTIFICATION FORM

<u>NOTE</u>: Notification of permanent closure must be received by the appropriate regional office of the Department at least 30 days prior to initiation of the closure activities.

- continues			garanga katalah da kat			
1.	Owner of Ta	nks				
	Owner Name	HERR FOODS INC.				
	Street Address	reet Address Phone Number				
		ROUTE 272 & HERE DRIVE		1601	132-6500	
	City	Nottingham	State PA	\	21p Code 19362	
II.	Location of Ta	anks			,	
	Facility Name				ication Number	
	Street Address	HERR FOODS INC		<u>/</u> 5 -	- 24418·	
		(,)	Vottina	. Δ M	CHESTER	
	Contact Person	_	<u> </u>	Phone Numbe	ır	
and the second		STEVE MORAN	nemeritarinjapanementaria	16101	732-6500	
111.	Month/Day/Y	ear of Proposed Closure 5/12/9	7_			
٧.	Certified Insta	iller/Company Performing Tank Handling Activi	ties		·	
	Certified Installer	Name		1	ication Number	
<u> </u>	Street Address	DAN LENTZ		Phone Numbe	723	
	JUIEET MUQUESS	P.O. Box 174			6049-453	
	City	BEAR	State	E	Zip Code 1970	
(Certified Compan			Company Cert	fication Number ろん・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・	
/. (Contractor/ind	lividual Performing Site Assessment Activities				
j	Name of Contract	or or Individual MiCHAEL Williams CA	CLAYTO	on Servi	CES CORP.	
S	treet Address	201 BETHLEHEM PIKE, SUITE	- 1	ML		
(C:	DORTH WALES	State D		Zip Code 19454	
7. C	***************************************	Underground Storage Tanks (See reverse side of for	n)			
I. V	Will this closur	e involve replacement of at least one old tank v	with a new	tank?		
١	res	No X				
1. S	ignature of Ta	ank Owner Milling - In Soone	£->	Date	4/12/97	

ER-BWA-33: 11/93 VI. Description of Underground Storage Tanks (Complete for each tank undergoing closure) ಯರಿ 005 004 C03 **Tank Registration Number** 4/لہ N/A N/A N/A Date of Tank Installation (Month/Year) 12,000 4,000 15,000 4,000 Estimated Total Capacity (Gallons) Diesel 5726 STEC 57 EC. Tank Material of Construction s. Petroleum Substance(s) Stored Unleaded Gasoline Throughout Operating Leaded Gasoline Life of Tank Aviation Gasoline (Check All That Apply) 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 b. Hazardous Substance Name of Principal **CERCLA Substance** AND Chemical Abstract Service (CAS) No. c. Unknown 区口 Z D Proposed Tank a. Removal Closure Method b. Closure-in-Place c. Change-In-Service (Check Only One) CoDTank Registration Number A/د Date of Tank Installation (Month/Year) 1,000 **Estimated Total Capacity (Gallions)** Tank Material of Construction **जिस्ट** Substance(s) Stored a. Petroleum Unleaded Gasoline Throughout Operating Leaded Gasoline Life of Tank 000000 Aviation Gasoline (Check All That Apply) Kerosene Jet Fuel Diesel Fuel Fuel Oil No. 1 ō Fuel Oil No. 2 Fuel Oil No. 4 Fuel Oil No. 5 Fuel Oil No. 6 New Motor Oil Ō M **Used Motor Oil** Other, Please Specify b. Hazardous Substance Name of Principal **CERCLA Substance** AND Chemical Abstract Service (CAS) No c. Unknown

a. Removal

b. Closure-in-Place

c. Change-in-Service

Proposed Tank

Closure Method

(Check Only One)

REGISTRATION OF STORAGE TANKS						
In accordance with Sections 303 and 593 of the Storage Tank and Spill Prevention Act of 1992, owners of regulated storage tanks are required to register their tanks with the Department and pay the required fees. *** INSTRUCTIONS ARE INCLUDED FOR YOUR REFERENCE. INCOMPLETE FORMS WILL BE RETURNED, DELAYING REGISTRATION. ***						
1. PURPOSE OF SUBMITTAL (Check (V) Those That	Apply)					
BATTAL REGISTRATION						
II. TANK OWNER / BUSINESS INFORMATION (7)	pe or Print Legibly)					
A. DEP CLIENT ID NO. (STATE USE ONLY) Federal Tax ID No. (EIN or SSN)	B. CHANGE OF OWNERSHIP (This section is to be completed in addition to all sections if some or all tanks have been sold/transferred or purchased.)					
Owner Name HERR FOODS INC. Address ROUTE 272 + HERR DRIVE	Effective Date of Change Sold/Transferred To (New Owner Name) (New Owner Address)					
City Nottingham State PA Zip 19362 Phone No. (6)C) 932 - 650 County CHESTER Municipality W. Nottingham Toology Hip Vol. Fire Co./EMS Org. Federal Government State Government Private (Residential) Corporate Private (Residential)	Purchased/Transferred From (Previous Owner Name) (Previous Owner Address) (Previous Facility ID No.) (Previous Tank No.(s))					
III. FACILITY INFORMATION (Type or Print Legibly)						
A DEP FACILITY ID NO. 15 - 24418 Facility Name HERR FOODS TIME. Location ROSTE 272 + HERR DRIVE (PO Box NOT acceptable) (RR Box IS acceptable)	B. FIRE MARSHAL PERMIT NO. (IF APPLICABLE) C. CONTACT (Optional)					
City Notting ham State PA Zip 19362 Phone No. (610) 932. 6500 County CHESTER Municipality W. Nottingham	Send all mail to Facility address noted to the left. Delete previously submitted Contact address and send all mail to the Owner address noted above. Send all mail to Contact address noted below:					
Type of Facility (Check Only One)	Name					
☐ 00 Unknown ☐ 10 Federal, Military ☐ 11 Commercial	Company Name					
□ 02 Petroleum Distr □ 12 Industrial						
= 03 Air Texi = 13 Residential	Mailing Address					
_ 04 Aircraft Owner _ 14 Contractor _ 05 Auto Dealership _ 15 Trucking/Transport						
os Radroad = 16 Utilities	CrityStateZip					
	-					
= 07 Local Govt = 17 Farm = 08 State Govt = 99 Other = 09 Federal, Non-Military SPECIFY	Phone No. (

IV. D	ESC	RIPTION				each regulated storage tank at this		
AB	OV	GROUND		st all tanks. If amending informationships.	on, identify	the Amended Tank(s) with an astu	erisk (*) to the left	of the tank
Tank Number	S T A T U S	Install Date (Mo-Day-Yr)	Remove Date (Mo-Day-Yr)	Capacity (Gallons)	Substance Code (Currently or Last Stored)	CERCLA Name (If Hazardous Substance) Substance Name (If Other Petroleum Substance or Petroleum-Based Mixture)	CAS No. (If Hazardous Substance)	Tank Exempt Reference Code (See Instructions)
AGOO	0			<u>£</u> 500				
Α								
Α	1							
A								
A	1		 					
Α								
Α	T							
Α								
A	\vdash							
Α	<u> </u>	 						
Α		1						
Status C	odes	: C - Cur	rently in Use	T - Temporarily Out of Use;	R - Rem	loved or Closed in Place		
B. UN	DEF	GROUND		st all tanks. If amending information	on, identify (the Amended Tank(s) with an aste	erisk (*) to the left	of the tank
T k i er	STATUS	instali Date (Mo-Day-Yr)	Remove Date (Mo-Day-Yr)	Capacity (Gallons)	Substance Code (Currently or Last Stored)	CERCLA Name (if Hazardous Substance) Substance Name (if Other Petroleum Substance or Petroleum Based Mixture)	CAS No. (If Hazardous Substance)	Tank Exempt Reference Code (See Instructions)
Coy	2			,_20,000				
003	R		5/28/97	4.000	F	NEW MOTER OIL		
004	R		\$28/97	4000	A	GASOLIDE		
co S	R		6/4/97		Α	GASOLING		
	R		6/4/97	12.000	B	Diesel		
<u>රී</u> ුරුරු				1		· · · · · · · · · · · · · · · · · · ·		
<u>606</u> 707	R		5/28/97		(4)	USSE MOTOR Oil	1	
<u>006</u> <u>207</u> 008	<u>R</u> (6/19/97	5/28/97		G	USED MOTOR Oil		
	R て て	6/19/97 6/19/97	5/28/97	1	G A R	GAS		
	R く く し	6/19/97 6/19/97	<i>5/28/97</i>	1	Ā			
	RUU		<i>5</i> /28/97	1	Ā	GAS		
	R C C C C C C C C C 		<i>5</i> 28 97	1	Ā	GAS		
309	<u></u>	6/19/97	TAN97		A B	GAS		
Status Co	odes	G∕iq∫q7 C∙Curi	rently in Use		R - Rem	Oved or Closed in Place		

Signature

e and Official Title of Owner
HERIZ FOODS

FOODS

DEP Facility ID No.

15-24418 Facility Name HER FOODS INC

INFORMATION FOR ABOVEGROUND AND UNDERGROUND NEW TANK INSTALLATIONS (Write the Tank Number(s) and place a check (V) in the appropriate box for each component that was installed.)

and the state of t	Tank Number	Tank Number	Tank Number	Tank Number	Tank Number	Tank Number	Tank Number	Tank Number	Tank Number	Tank Number	Tank Number
TANK CONSTRUCTION AND CORROSION PROTECTION (1)	008	009									
(A) SINGLE WALL UNPROTECTED STEEL					ļ ———	·					
(8) CATHODICALLY PROTECTED STEEL (GALVANIC)					;						
(C) CATHODICALLY PROTECTED STEEL (IMPRESSED CURRENT)											
(D) DOUBLE WALL STEEL											
(E) SINGLE WALL FIBERGLASS				3.72.4.							
(F) DOUBLE WALL FIBERGLASS											
(G) STEEL WITH PLASTIC OR FIBERGLASS JACKET											
(H) STEEL WITH FRP COATING											
(I) STEEL WITH LINED INTERIOR											
(J) CONCRETE											
(99) OTHER (SPECIFY)	L	Ĺ	<u> </u>	<u></u>		L	<u></u>				
UNDERGROUND PIPING CONSTRUCTION AND	CORROSK	ON PROTE	CTION (2)	,							
(A) BARE STEEL											
(B) CATHODICALLY PROTECTED STEEL											
(C) COPPER											
(D) FIBERGLASS											
(E) FLEXIBLE (NON) ALBIEZA (B)		<u> </u>									
(G) NONE			<u> </u>								
(99) OTHER (SPECIFY)	L		L	L.,,,,,,,							
AP YEGROUND PIPING CONSTRUCTION AND	CORROSK	ON PROTE	CTION (3)	N/A ·					4		
(ARE STEEL											
(B) CATHODICALLY PROTECTED STEEL											
(C) COPPER											
(D) FIBERGLASS		.,,									
(E) FLEXIBLE (NON-METALLIC)											
(G) NONE											
(99) OTHER	L										
PUMP (PIPING) SYSTEM (4) 5						,	,				
(A) SUCTION: CHECK VALVE AT PUMP											
(8) SUCTION: CHECK VALVE AT TANK											
(C) PRESSURE	V										
(D) GRAVITY FED			<u></u>								
PIPE RELEASE DETECTION METHOD (5)											
(A) AUTOMATIC LINE LEAK DETECTOR											
(8) ANNUAL LINE TIGHTNESS TESTING (PRESSURE)											
(C) UNE TIGHTNESS TEST - 3 YEARS (SUCTION)											
(D) INTERSTITIAL MONITORING	\	\checkmark									
(E) GROUNDWATER MONITORING											
(F) VAPOR MONITORING											
(G) VISUAL INSPECTION											
(H) NONE											
(I) EXEMPT									1.		
(i) STATISTICAL INVENTORY RECONCULATION (SIR)						····					
SPILL PREVENTION (6)		1			·—				· · · · · · · · · · · · · · · · · · ·		
(A) AE2	$\sqrt{}$	7			······			T	T		
(N 1)											
OVERFILL PREVENTION PRESENT (7)				<u>-</u>					1		
				Y			т	т.		Т	
(Y) YES		/_									
(N) NO		لـــــنــــــــــــــــــــــــــــــــ			1	1					

VI. INFORMATION FOR ABC (Write the Tank Number(s) and place										TIONS	(cont.)
	Tenk Number	Tank Number	Tank Number	Tank Number	Tank Number	Tank Number	Tank Number	Tank Number	Tank Number	Tank Number	Tank Number
VAPOR RECOVERY PRESENT (11)	008	009		j						ł	
(A) STAGE I INSTALLED	7										
(8) STAGE II INSTALLED PIPED UP			Non	SUITS							
IC) STAGE ! AND II INSTALLED											
D) NONE											
'ANK RELEASE DETECTION METHOD (12)											
(A) MONTHLY INVENTORY CONTROL	T										
(B) ANNUAL TANK TIGHTNESS TESTING											
(C) TANK TIGHTNESS TESTING (EVERY 5 YEARS)											
(D) STATISTICAL INVENTORY RECONCILIATION											<u> </u>
(E) AUTOMATIC TANK GAUGING									ļ	<u> </u>	<u> </u>
(F) MANUAL TANK GAUGING (36 HRS.)									 	 -	<u> </u>
(G) MANUAL TANK GAUGING (44 OR 58 HRS.)					 						
(H) INTERSTITIAL MONITORING (2 WALLS) (I) INTERSTITIAL MONITORING (LINER)	\ <u>\</u>			 		 					
(3) GROUNDWATER MONITORING	<u> </u>									1	
(K) VAPOR MONITORING			<u> </u>						İ .	1	1
(L) GROOVES MADE IN THE IMPERMEABLE PAD					1						
IM) SLOTTED PIPE ABOVE THE IMPERMEABLE PAD											
N) NONE											
(O) EXEMPT											ļ. <u></u>
										M SER	VICE
(Write the Tank Number(s) and place										M SER	Tank
	a check (\ Tank Number	/) in the a Tank Number	ppropriat Tank Number	e box for Tank Number	Tank Number	that was Tank	removed (or closed i Tank	in place.) Tank	Tank	Tank
(Write the Tank Number(s) and place	a check (\ Tank	/) in the a Tank Number	ppropriat Tank	e box for Tank	each tank Tank	that was Tank	removed (or closed i Tank	in place.) Tank	Tank	Tank
(Write the Tank Number(s) and place	a check (\ Tank Number	Tank Number	Tank Number	e box for Tank Number	Tank Number	that was Tank	removed (or closed i Tank	in place.) Tank	Tank	Tank
(Write the Tank Number(s) and place ANK EMPT:ED AND REMOVED DEVCMENT ON STILL NO CEMPAND ANA	a check (\ Tank Number	/) in the a Tank Number	ppropriat Tank Number	e box for Tank Number	Tank Number	that was Tank	removed (or closed i Tank	in place.) Tank	Tank	Tank
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(Write the Tank Number(s) and place ANK EMPT:ED AND REMOVED ANK CLEANED ON SITE AND REMOVED ANK CLEANED ON SITE AND CLOSED IN PLACE ON ANA CLEANED ON SUSPECTED ON SOSSERVED AND	a check (\ Tank Number	Tank Number	Tank Number	e box for Tank Number	Tank Number	that was Tank	removed (or closed i Tank	in place.) Tank	Tank	Tank
	a check (\ Tank Number	Tank Number	Tank Number	e box for Tank Number	Tank Number	that was Tank	removed (or closed i Tank	in place.) Tank	Tank	
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ANK EMPTIED AND REMOVED ANK CLEANED ON SITE AND REMOVED ANK CLEANED ON SITE AND CLOSED IN PLACE ONTAMINATION SUSPECTED ON OBSERVED AND OTIFICATION OF CONTAMINATION FORM WAS SUBMITTED LOSURE DOCUMENT SUBMITTED (FOR USTS ONLY) VIII. OWNER CERTIFICATION I certify under penalty of law that I have personally examinimmediately responsible for obtaining the information, I be the Storage Tank and Spill Prevention Act of 1989, with any Please be advised that signature by an individual on this do ties as an "owner" arising under the Storage Tank and Spill Section 4904 relating to unsworn falsification to authorities Name and Official Title of Owner HERR TOOMS INSTALLER/REMOVER CE	Tank Number CC3 (Read and am felieve that the reventions and that Section 1 activities in the desired that the desired that the section 1 activities in the desired that Section 1 activities in the desired that Spill Prevention 1 activities in the desired that the desired	Tank Number Tank Number Sign Aft Sign Aft amiliar with ne submitted and orders is the Act of 1989 at tion 107(c) or the category contion Act of orthic act of the category contion Act of the category contion Act of the category contion Act of the category contion Act of the category contion Act of the category contion Act of the category contion Act of the category contion Act of the category contion Act of the category contion Act of the category contion Act of the category contion Act of the category contion Act of the category contion Act of the category contion Act of the category contion Act of the category contion Act of the category contion Act of the category continued	er Complete the information and its regular this Act grant and uncarrected and uncarrected and all 1989 and all	ting Section submittee is true, accurate to this Act, at that the inditions. Please its agents and gnature its on must indergroun have listed, is applicable re-	each tank Tank Number CO 7 ons I throp sin this and com and with the evidual owns to be further a d employees. Left of the complete of th	that was Tank Number Jugh VII.) all attached of plete. This re- requirements of the Depart Vised that to of the Depart eted by the tank system ill tank handiliso certify, ut	Tank Number locuments, and signification is for obtaining into and is awaits registration ment of Environment	or closed in Tank Number Ind that base conditioned is a permit received are of those in its made surronmental Promental Prome	d on my inquiupon compliquired under responsibilitiblect to the rotection specific (s) who ar ms VI and cred in comp	iry of those in ince with proteins Act. es and potention of triffic rights of triff	Tank Number Individuals wisions of the labili- 8 PA. C.S. entry.
ANK EMPT:ED AND REMOVED ANK CLEANED ON SITE AND REMOVED ANK CLEANED ON SITE AND CLOSED IN PLACE ONTAMINATION SUSPECTED OR OBSERVED AND OTIFICATION OF CONTAMINATION FORM WAS SUBMITTED LOSURE DOCUMENT SUBMITTED (FOR USTS ONLY) VIII. OWNER CERTIFICATION I certify under penalty of law that I have personally examinimmediately responsible for obtaining the information, I but the Storage Tank and Spill Prevention Act of 1989, with any Please be advised that signature by an individual on this do ties as an "owner" arising under the Storage Tank and Spi Section 4904 relating to unsworn falsification to authorities Name and Official Title of Owner HERR TOOMS INSTALLER/REMOVER CE the installation or removal from service As the cerufied installer responsible for the tank handling installation and operation standards of the Storage Tank as	Tank Number CC3 (Read and am felieve that the reventions and that Section 1 activities in the desired that the desired that the section 1 activities in the desired that Section 1 activities in the desired that Spill Prevention 1 activities in the desired that the desired	Tank Number Tank Number Sign Aft Sign Aft amiliar with submitted and orders is: esents to the Act of 1989 ction 107(c) of the category of	er Complete the information and its regular this Act grant and uncarrected and uncarrected and all 1989 and all	ting Section submittees true, accurate to this Act, a that the inditions. Please the agents and agents and applicable recomplete to the complete to the comple	each tank Tank Number CO 7 ons I throp sin this and com and with the evidual owns to be further a d employees. Left of the complete of th	that was Tank Number Jugh VII.) all attached of plete. This re- requirements of the Depart Vised that to of the Depart eted by the tank system ill tank handiliso certify, ut	Tank Number locuments, and standing and and is awaits registration is for obtaining and and is awaits registrationent of Environment of Envi	or closed in Tank Number Ind that base conditioned is a permit received are of those in its made surronmental Promental Prome	d on my inquipupon compliquired under responsibilitiblect to the potential black of the contection specific black of the contection specific black of the contection specific black of the contection specific black of the contection specific black of the complex	iry of those in ince with proteins Act. es and potention of triffic rights of triff	Tank Number ndividuals visions of tiat liabili- 8 PA. C.S. entry.

Detach and return this name to the Division of Storage Tables

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2530-FM-LRWPMOREZ Roy, 1/46 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 (0/0)

PLEASE COMPLETE SECTIONS L. II, IRA. IND. IV, V., VII and VIII.

NOTIFICATION OF CONTAMENATION (Cordinal 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)(d) 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 L. II, HIA. IIIC, VI. VII and VIII.

INSTRUCTIONS

t.	FACEITY INFORMATION: Record the name, I.D. number and physics been confirmed or at which suspected or confirmed contamination I	il location (not P.O. has been observed.	Box) of the facility at include the name an	which a reportable reli diphone number of a p	ease has enon to
	contact at the facility.	•		· · ·	

OWNER INFORMATION - Record the name, business address and phone number of the owner of the facility identified in Section 1.

REGULATED SUBSTANCE INFORMATION - indicate to the best of your knowledge: A) the type of product or products involved; 9) the quantity of product or products released; and C) whether the contemination 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.

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)

Sauthpert Region Lies Park, furts 6010 55% North Lane Compromiser, PA 1947E FAX: 610-837-6143

Chamiles Bucits, Cheeler, Delewere, Manigemery, Philadelphia Northeast Region 2 Public Square Veiltes-Barne, PA 18711-0750 FAX: 717-820-4007

Counties
Corbon, Lecturents, Lettigh,
Lucreme, Monroe, Northempton, Pito, Schuykill, Susquehuma, Wigne, Wyeming

Southcontrol Region One Amerit Boulone of Horristang, PA 17110 FAX: 717-540-7492

Adams, Badiord, Berio, Blair, Cumberland, Dauphin, Franklin, Fukon, Huntingdon, Junista, Lehosdar, Lekanon, Milffan, Perry, York Herrheentral Region 200 W. Third Street, Suite 101 Williamsport, PA 17701 PAX: 717-327-3565

Countries Broafford, Comeron. Centre, Clinton, Clearfield, Countries, Lycoming, Agentsur, Northumberland, Poter, Snyder, Sudingn, Tinga, Union

Phone Number

Southwest Region 400 Waterfront Drive Hitsburgh, PA 15222 FAX: 412-442-41\$4

Counties Alloghery, Armstrong, Bearer, Cambrid, Feyette. Greene, Indiana, Semenset, Washington, Washnoreland Morthwest Region 230 Chapteut Street Mandeille, PA 16235 Falt: 814-332-6121

Counties Sutter, Clanen, Creeford, Elk, Eria, Forest, Jefferleit, Lawrence, McKean, Marcer, Venango, Warren

100	ACCORDING TO CONTRACT ON CONTRACTOR				AND DESCRIPTIONS
•					
	CAPILITY O	NFORMATI	AN JEAN	门/门 集战员	1311
	PALILITI	PERLIP NO PALIS	OR LOUDI	The State of the s	

		-
Street Address (P.O. Box not acc	Facility I.D. Number っ ゴルビ ノグー シリイノ名	
Street Address (P.O. Box not acc	epteb(e)	
LOTE STUD	HERR DRIVE	
Čity i	State Zip Code	
Nattingham	PA 19362	
County	Municipality (
CHESTER	Nottingham	
Fanto of Bourton	Phene Mumbel	

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

Öwner Name	······································		<u> </u>	
CAMILER MARKE	SAME	AS		
Address			A CONTRACTOR CONTRACTO	
City		<i></i>	 	
State			 Zip Code	
			 4.4	

	III. REGULATED SUB	STANCE INFORMATION	
A. Type of Product(s) involved (Mark Ali That Apply E): Eoth O/O and I/I	8. Quamtity (Gallons) of Q/Q Only	/ Product(s) Released:	C. Contamination Suspected (5) or Confirmed (C): i/i Only
Leaded Gasoline Unleaded Gasoline Aviation Gasoline Kerosene Jet Fuel Diesel Fuel New Motor Oil Used Motor Oil Fuel Oil No. 1 Fuel Oil No. 2 Fuel Oil No. 5 Fuel Oil No. 5 Fuel Oil No. 6 Other (Specify) Unknown	1		× isj× id
IV. (REPORTABLE RELEASE	INFORMATION (0/0 C	Only)
Date Owner/Operator Verbally Notified Approach Repertable Release and Office Notified: Date	MOTHEAST COM	Soil Sedi	ment
Municipality and Name of Municipality Notifie Date <u>fr 4 97</u> Municipality <u></u> m d y	WEST NOTHINGLA	Wate	erSupplies
777.55.	V. INTERIM REMEDIA	LACTIONS (O/O Only)	
(Mark All That Apply ©): Regulated Substance Removed from Storage Talente, Explosion and Safety Hazards Mitigated Contaminated Soil Excavated Free Product Recovered Temporary Water Supplies Provided Other (Specify)	inks	0 Ø	
VI SUSPECTED		AMINATION INFORMA	TION (I/I Only)
Date of Observation of Suspended/Confe		5128197	***************************************
Indication of Suspected Contamination 'erk All That Apply III): Unusual Level of Vapors Erratic Behavior of Product Dispensing Equipmes Release Detection Results Indicate a Release		Ponded Product	Saturated Soil or Backfill
Discovery of Holes in the Storage Tank Other (Specify)	D	Free Product or Sheen on Si	urface Water Surface

3	LEW 140862	Rev. 5/96

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

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

On May 28, 1997, Enercon Services Inc. uncovered and removed two underground storage tanks. During the excavation activities, soils exhibiting strong gasoline odors and visual staining were observed. Soils with elevated field readings (FID) were stockpiled on and under plastic for future treatment and/or disposal.

VIII. CERTIFICATION (Both O/O and I/I)	
STEVE WORKS hereby certify, under penalty of law as provided in 18 Pa. C. (Print Name) [88904(relating to unsworm felsification to authorities) that I am the owner or operator of the above referenced storage tank facility and that information provided by the infinite information provided by the infinite information provided by the infinite information provided by Telegraphy and the securate and complete to the best of my knowledge and belief. [88904(relating to unsworm felsification is true, accurate and complete to the best of my knowledge and belief. [88904(relating to unsworm felsification is true, accurate and complete to the best of my knowledge and belief. [88904(relating to unsworm felsification is true, accurate and complete to the best of my knowledge and belief. [88904(relating to unsworm felsification is true, accurate and complete to the best of my knowledge and belief. [88904(relating to unsworm felsification is true, accurate and complete to the best of my knowledge and belief. [88904(relating to unsworm felsification is true, accurate and complete to the best of my knowledge and belief. [88904(relating to unsworm felsification is true, accurate and complete to the best of my knowledge and belief. [88904(relating to unsworm felsification is true, accurate and complete to the best of my knowledge.]	
1. Interest of law as provided in 18 Pa. C. (Print Name) [4504 (relating to unswork felsification to authorities) that I am the certified installer who performed tank handling activities at the above reference tank facility and that the information provided by me in this notification is true, accurate and complete to the best of my knowledge and be 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 be storage tank facility and that the information provided installer Date 2830 [Installer Certification Number] Company Certification Number	nced
in CHACL DILIANS (Prind Name) [Fried Name] enced	

CLAYTON SERVICES CORPORATION

ENVIRONMENTAL COMPLIANCE CONSULTING & CONTRACTING

1201 BETHLEHEM PIKE, SUITE 105, NORTH WALES, PA 19454 (215) 362-6400 (215) 362-6481 FAX

Tank Cleaning/Disposal Documentation

Project:

Herr Foods Inc.

Nottingham, PA

- Non-Hazardous Liquid Manifests
- Tank Cleaning Certificate
- Tank Disposal Documentation

Note:

A 21,000-gallon Frac tank was required on-site to containerize surface stormwater and trapped surface water which accumulated in the excavation during the overexcavation of contaminated soils. Approximately 12,000-gallons of stormwater was containerized and ultimately discharged to the surface after treatment through granular activated carbon. Mr. Keith Dudley, PADEP Southeast Regional Office, granted verbal permission to discharge the water after treatment. Analytical results of the discharged water are available upon request.

S. Cymentodes history and facility relations. S. Cymentodes history of the Ching Name. P G. Contractors history and facility relations. S. Transporter Company Name. P S. Designated Footh Name and Sh. Address. S. Designated Footh Name and Additional Information. S. Species Name and Additional In	1	NON-HAZARDOUS	1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of		
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7. Transporter 2 Corpeity Name or dish Asthebias 10. US EPA D Number 2. A Transporter Problem 10. Б. А	Transporter 1 Company Name	Tech Make	00006908	2 Ept	<u> </u>	ું હું	
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15. Special Handling Instructions and Additional Information I. N. C. I. S. J. LINENGERY, C. M. 440-327-779.5 18. GENERATOR'S CENTRICATION: Londity the materials described depth on this manifest are not subject to federal regulations for reporting projections and Additional Information 18. GENERATOR'S CENTRICATION: Londity the materials described depth on this manifest are not subject to federal regulations for reporting projections and Hazardous in Policy of Materials 19. Transporter 1 Acknowledgement of Receipt of Materials 19. Transporter 2 Acknowledgement of Receipt of Materials 19. Discrepancy Indication Space 19. Discrepancy Indication Space 20. Facility Owner or Operator: Certilication of receipt of waste materials covered by this manifest except as noted in Item 19. Printed/Typed Name Signature Month Description Month Description Signature Month Description Month Description Signature Month Description Month Description Signature Month Description Signature Month Description Month Description Month Description Signature Month Description Month Description Signature Month Description Month Description Month Description Signature Month Description Month Description Signature Month Description Signature Month Description Month Description Month Description Signature Month Description Month Description Month Description Month Description Month Description Signature Month Description Month D	ġ.						
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GENERATOR'S COPY

EnerCon Services, Inc.

P.O. Box 174 Bear, DE 19701 (302) 834-8265 Fax# (302) 834-4699

Date: June 4, 1997

Clayton Services Corporation 1201 Bethlehem Pike, Suite 105 North Wales, PA 19454 Fax #215-362-6481

Tank Cleaning Certification

This letter will certify that EnerCon Services, Inc. pumped out the contents of a 1,000 gallon waste oil tank, a 4,000 gallon motor oil tank, a 4,000 gallon gasoline tank, a 12,000 gallon gasoline tank and a 15,000 gallon diesel underground storage tank located at Herr's in Nottingham, PA. The tanks were cleaned, wiped, powdered dry and vapor freed. The cleaning was done by a 40-hour OSHA trained employee with Confined Space Certification. All work was done in accordance with API Publication No. 1604 and in compliance with all state and federal regulations.

Sincerely yours, EnerCon Services, Inc.

Jim Brown/lw

Jim Brown Vice President

JB:lw

RD #2, . .

.... ROUTE 372E

PARKESBURG, PA 19365

(610) 857-1200

ATTN: MIKESDONOVAN ENERCON SERVICES P. O. BOX 174 BEAR, DE 19701

P. O. BOX 451

JULY 3, 1997

CERTIFICATE OF DESTRUCTION

SERVICE LOCATION: HERRS FOODS

RTE. 272 & RTE. 1 NOTTINGHAM, PA

SERVICE ITEMS: ONE (1) 15,000/GALLON DIESEL STEEL TANK

ONE (1) 12,000/GALLON GASOLINE STEEL TANK ONE (1) 4,000/GALLON GASOLINE STEEL TANK ONE (1) 4,000/GALLON MOTOR OIL STEEL TANK ONE (1) 2,000/GALLON WASTE OIL STEEL TANK

ZYDINSKY CONTRACTORS OPERATIONAL PERSONNEL DID CAUSE AND EFFECT COMPLETE AND/OR IRREPARABLE DESTRUCTION TO THE ABOVE REFERENCED ITEMS SO AS TO RENDER SAID ITEMS PERMANENTLY INOPERABLE AND/OR UNUSABLE FOR ORIGINAL PURPOSE. ITEMS WERE SUBSEQUENTLY SHIPPED OFF-SITE AND SUBMITTED FOR DISPOSAL UNDER ZYDINSKY CONTRACTORS GENERIC SCRAP APPROVAL CODE THROUGH WHICH THERMAL REDUCTION AND/OR ELIMINATION PROVIDED THE FINAL DISPOSITION

OF SAID ITEMS.

RESPECTFULLY,

ZYDINSKY CONTRACTORS

JÓSEPH[,]

OWNER

CC: FILE

WEIGHWASTER CERTIFICATE

TIME

LURIA BROTHERS

VSON OF CONNELL LIMITED PATUMESHIP 20 MORTINVILLE ROAD MODENA, PA 19358 TELEPHONE: 610-384-2881

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WEIGHMASTER CERTIFICATE

LURIA BROTHERS SION OF SOWNELL LINITED PARTHERSHIP

20 MORTINVILLE ROAD

MODENA, PA 19358
TELEPHONE: 610 384-2881

WEIGHT

TIME

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VEALCLE OWNER ASSUMES RESPONSIBILITY FOR ANY DAMAGE TO VEHICLE BY CRANE.

SIGNED X

by a weighmastar, wholey eignaturght on this certificate, who is a recognized authority of econ-racy, as prevented by the applicable Business and Professions Code of this state, aced adminis-tenes by the authorized state department responsible for Messurement Standards of this state. THIS IS TO CERTIFY IND

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LURIA BROTHERS A DIVISION OF COUNTELLUIMTED PARTIMENSES 20 MORTHWYLLE ROAD WODENA, PA. 19658 TELEPHONE, 610-334-2881 WEIGHT	GROSS TICKET WINDER 1205 1205 TARE	282700 16.08 . NET	1.0. # 165 VEHICLE # 126.0.C.	SUPPLIER/SELLER	COMMODITY	DESCRIPTION LANGE LANGE TOWN	GROSS BY WASHINGTON TARE BY A DEPUTY	VEHICLE OWNER ASSUMES PESPONSIBILITY FOR AIM DAMAGE TO VEHICLE BY CRANE.	SIGNED X

CLAYTON SERVICES CORPORATION

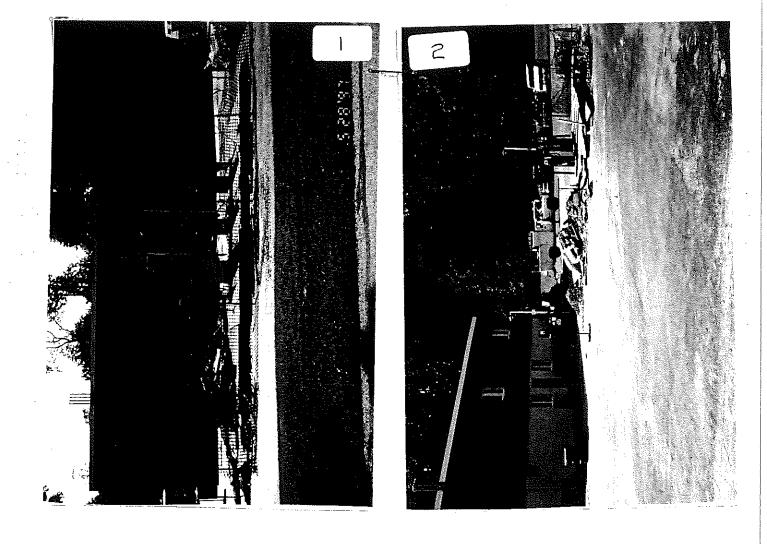
ENVIRONMENTAL COMPLIANCE CONSULTING & CONTRACTING

1201 BETHLEHEM PIKE, SUITE 105, NORTH WALES, PA 19454 (215) 362-6400 (215) 362-6481 FAX

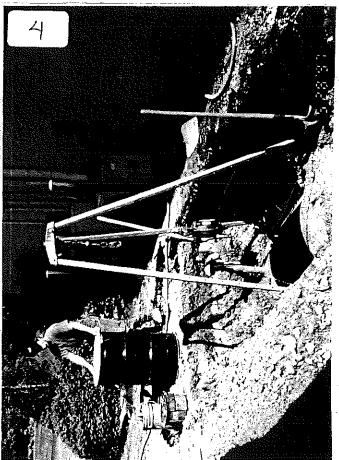
PHOTODOCUMENTATION

Project: Herr Foods Inc., Nottingham, PA

VII. 100	
1)	Tank location prior to tank removals. Note excavation of diesel UST (Tank 006) for testing and investigation of leak.
2)	Same as #1
3)	Draining of product lines back to respective USTs.
4)	Tripod for internal tank cleaning
5)	Removed Waste Oil UST (Tank 007)
6)	Removed new oil UST (Tank 003)
7)	Excavation after removal of Tank 003
8)	Removed gasoline UST (Tank 004)
9)	Excavation of 15,000-gal gasoline prior to removal (Tank 005)
10)	Removal of 12,000-gal diesel UST (Tank 006)
11)	Excavation of 12,000-gal diesel UST prior to removal (Tank 006)
12)	Visible hole in bottom of Tank 006
13)	Removed and labeled Tanks 003 & 004
14)	Stockpiles of contaminated soil removed from under Tanks 005 & 006
15)	Same as #14
16)	21,000-gal Frac tank used to contain stormwater runoff into excavation during overexcavation of contaminated soils.



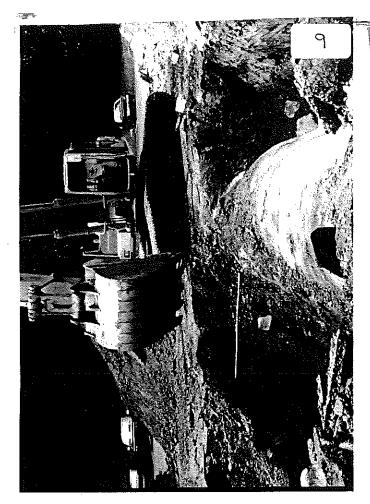


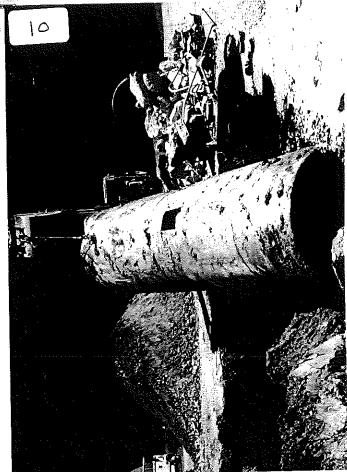


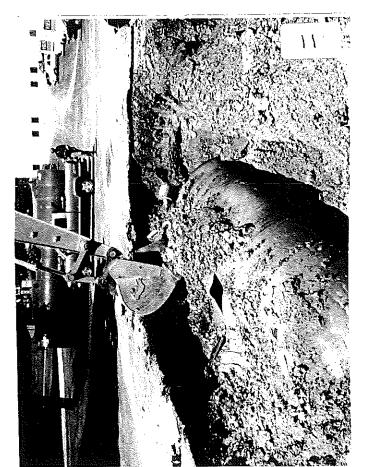


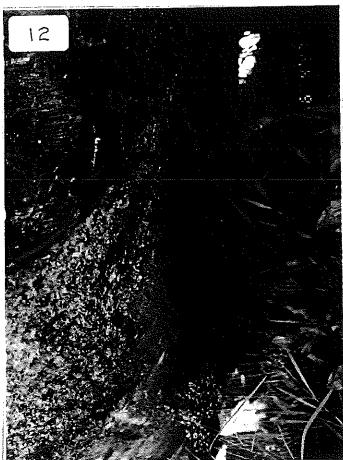


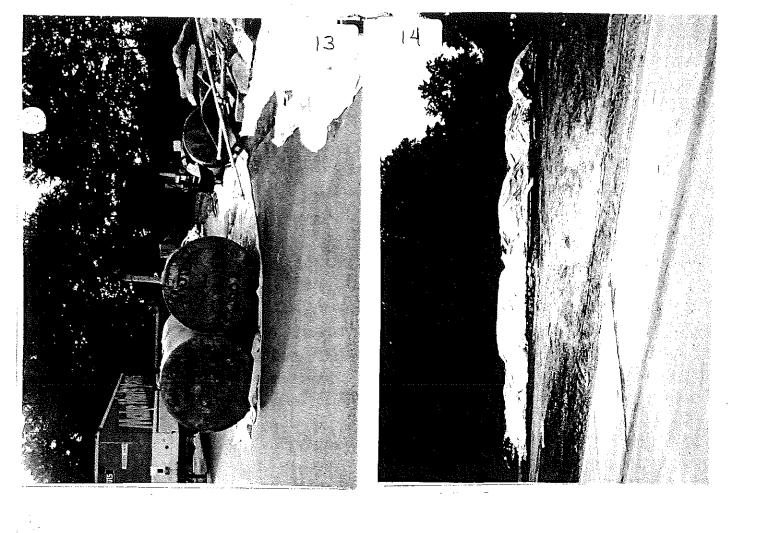














CLAYTON SERVICES CORPORATION

ENVIRONMENTAL COMPLIANCE CONSULTING & CONTRACTING



1201 BETHLEHEM PIKE, SUITE 105, NORTH WALES, PA 19454 (215) 362-6400 (215) 362-6481 FAX



July 3, 1997

Ms. Susan Kishbaugh PADEP - SE Region Lee Park, Suite 6010 555 North Lane Conshohocken, PA 19428

Re:

Notice of Contamination

Herr Foods Inc.

Facility ID # 15-24418 Two.

Dear Susan,

As per our discussion, attached please find one "Installation Contractor" signed Notice of Contamination (NOC) for the above referenced project.

I anticipate this will complete the notification process of your department, as requested.

Please contact our office with any questions.

Sincerely,

Michael Williams

Clayton Services Corporation

PADEP Co. Cert # 1322

PADEP Ind. Cert # 4053

CLOSURE REPORT FORTHCOMING.

C>C (5)

CHARLEMANT OF STANDART AND ASSURED AND ASSURED ON THE PROPERTY OF STANDARD ASSURED ASS

2589-FAA-LRHAMBREAZ Roy. 5/65 Bussau of Land Recyclaig and Waste Management

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

HOTHELATION 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(e). This form may be used to comply with Subsection 245.305(d).

OWNERS AND OFERATORS (0/0) PLEASE COMPLETE SECTIONS L. H. H.A. HIB. IV. V. VII AND VIII.

NOTIFICATION OF CONTANGUATION (Contified Installers and Inspectors)

On September 21, 1991, the Storage Yank Program's Cartification 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 refease of a regulated substance or confirmed or suspected contemination of soil, surface or grounded to from regulated substances observed while parforming services as a certified installer or

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 RISTALLERS AND MISPECTORS (IA) PLEASE COMPLETE SECTIONS LE, MA, IIIC, VI. VII AND VIII.

INSTRUCTIONS

FACESTY INFORMATION - Record the name, I.D. number and physical location (not P.O. Bez) 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

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

REGULATED SUBSTANCE BIFORMATION - Indicate to the best of your knowledge: A) the type of product or products involved; 6) the m.

quentity of product or products released; and O whether the contemination is suspected or confirmed.

REPORTABLE RELEASE REFORMATION - 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.
INTERIM REMEDIAL ACTIONS - Indicate the interior remedial actions planned, initiated or completed.

SUSPECTED/CONFIGMED CONTAMENATION 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

dting from the release of the regulated substance. ADDITIONAL HIPORMATION - Provide any additional, relevant, available information concerning the reportable release or suspected or confirmed contamination. Include in this section a brief description of the scrivity 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.

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 ONIGINAL 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)

Sauthean Region Leg Park, furte 6610 ESK North Lame 1240 PA 13430 FAX: 610-697-6169

Buda, Overter, Delever

Heritock Region 2 Publik Square Williags-Barre, PA 18711-0798 FAN: 717-428-4007

Counting Carbon, Locksonsons, Lehigh, Lucyrne, Merres, Nerthamp ton, Pine, Marghall, Susque rese, Wayne, Wyening

Southebreet Region One Armet Boulovard National PA 17110 TABL 717-540-7482

ATO. Bookland, Berlet, Blair, Cumbedood, Dauphin, Frenklin, Pulson, Hustingdon, Juniete, Lenaud Lebanan, Miffan, Perry, Yerk

hypriscentral Region 200 W. Third Street, Suite 101 Williamsport, PA 17701 FAU; 717-327-3565

Brodlerd, Carneron, Contre. Climber. Charfield Columbia, Lycaming. mberbad, Fe Incolor, Sulliver, Tingo, Union

Southwest Registr 400 Waterfront Drive PRESSUREN, PA 15222 PAX: 612-662-6194

my, Admitted in g Beaver, Combrie, Royelto yy, indiana, Sameran Mershwest Region 236 Chadrut Street Meadalle, PA 1625 fax: 814-113-6121

Sutter, Clarica, Crowford, Elk. Erra. Ferrest, seffenson. Lavarance Makean, Marcer.

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

Facility Name	Foots		Facility I.D. Number 5-24418
Street Address (P.O.	. Box not accept	able)	
Course	<u> </u>	Jer Drive	Zip Code
City		State	7 (2.5)
County	<u>NA AS</u>	PA Municipality	173768
CHEST	~~ <i>t</i> t	1012110262	<u>aham</u>
<u> </u>	<u> </u>		

Owner Name SAME AS I Address City Zip Code State

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

Phone Number

---- min es es coma 1864 . 3/58

III. REGULATED SUBSTANCE INFORMATION									
A. Type of Preduct(s) Involved (Resk Ali Thet Apply &): <u>Both C/O and I/I</u>	Quantity (Saliens) of Product(s) Q/Q Only	Released:	C. Contemination Su Confirmed [C]: I/i Only	spected (5) or	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Leaded Gasoline Unleaded Gasoline Avistion Casoline Kerosene Lat Fuel Diesel Fuel New Motor Oil Used Motor Oil Fuel Oil No. 1 Fuel Oil No. 2 Fuel Oil No. 5 Fuel Oil No. 6 Other (Specify) Unknown	A C C C C C C C C C C C C C C C C C C C		(S) (S) (S) (S) (S) (S) (S) (S)	C C C C C C C C C C					
Date Reportable Release was Confirmed:	<u>5,23,97</u>	1.000.000							
Date Owner/Operator Verbally Notified ApproReportable Release and Office Recified: Date S/28/97 Office Some Office State Owner/Operator Sent Copy of this Writts Manicipality and Name of Municipality Notified Sent Copy of this Writts Manicipality and Name of Municipality Notified Sent Sent Copy of this Writts Municipality Notified Sent Sent Copy of this Writts Municipality Notified Sent Sent Sent Sent Sent Sent Sent Sent	MONTHEAST Regress! Monthication to Local III Wast Northing	Soil							
	v. Interim remedial action	is (0/0 Only)							
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	/ CONFIRMED CONTAMINAT		10N (I/I Only)						
Dete of Observation of Suspented/Casali	med Contemination: \$128	1 97		00/2000/0					
Indication of Suspected Contemination (Mark All That Apply III): Umusual Level of Vapors Erratic Behavior of Product Dispensing Equipment Release Detection Results Indicate a Release Discovery of Holes in the Storage Tank	(Mark AR Product S Ponded P Free Prod Free Prod Free Prod	roduct uct or Shoon on Per uct or Shoon on the uct or Shoon on Sur	aturated Soil or Backfil Inded Water Ground Water Surface Face Water	 !					
Other (Specify)	Other (Sp	echy) <u>Baisch</u>	FID Field Blan	7,762	J K				

and the second s	VII. ADDITIONAL INFORMATION (S	oth O/O and I/I)
ude a brief descr ected/cenfirmed ice or routine im	iption of the activity that was being conducted when the reportab I contamination was observed by the certified installer or inspecto	and the second s
	On May 28, 1997, Enercon Services Inc. uncover underground storage tanks. During the excavation strong gasoline odors and visual staining were obtendings (FID) were stockpiled on and under planting possal.	served. Soils with elevated field
	VIII. CERTIFICATION (Both	D/O and I/I)
	STEVE MORNI	, hereby certify, under penalty of law as provided in 18 Pa. C.S.A
iggs(relating to	(Print Norte)	rater of the above referenced storage tank fetility and that th
formation provi	ded by the in this rouncement in their, section.	6/4/97
200 Miles	Signature of Owner or Operator	Date
1		, hereby certify, under panelty of law as provided in 18 Pa. C.S.A.
	ICHAFEL S. DONOVAN	
4904 (relating to	(Print Name) unswork felsification to puthorities) that I am the certified install ity and four the information provided by me in this notification is tri	e who performed tark narranny activities by knowledge and belie
borege tank facil	ity and that the arrownation products	7/3/97
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- American de la compansión de la compan	Installer Certification Number	
M.	CHASI WILLIAMS	hereby certify, under penetty of law as provided in 16 Ps. C.S.A
	COPPORE NAMED TO SEE	actor who performed inspection activities at the above referent
storaga tank faci	to unsworn falsification to authorities) that I am the certified insp lity and that the information provided by me in this notification is t	Tue, accurate Bins complete to the control of 7
		Date
	Signature of Certified Inspector	→ -

Inspector Certification Number



Pennsylvania Department of Environmental Protection

Lee Park, Suite 6010 555 North Lane Conshohocken, PA 19428 November 17, 1997

Southeast Regional Office

610-832-5949 Fax 610-832-6143

Steve Moran Herr Foods, Inc. P.O. Box 300 Nottingham, PA 19362

Re: Storage Tank Program
Herr Foods, Inc.
Facility ID No. 15-24418
Route 272 & Herr Drive
West Nottingham Township
Chester County

Dear Mr. Moran:

The Department has reviewed the closure report submitted by Clayton Services Corporation, dated July 2, 1997, regarding the removal of one steel 15,000-gallon unleaded gasoline, one steel 12,000-gallon diesel, one steel 4,000-gallon new motor oil, one steel 4,000-gallon unleaded gasoline, and one steel 1,000-gallon used motor oil underground storage tanks at the above referenced facility.

The closure report indicates that contamination was encountered during the tank removal process. The contamination of soil and/or water, including groundwater, as the result of a discharge, spill or release of a regulated substance from a storage tank is a violation of Section 1304 and 1310 of the Storage Tank and Spill Prevention Act.

Although analytical results from soil sample Nos. Pl-5 and Pl-6 exceed the statewide health standard for MTBE, based on our review of the information and conclusions contained in the report, it appears that no further action is required regarding the closure of the tanks listed above. We do not warrant the accuracy or veracity of any closure report. If we subsequently obtain additional information which indicates the existence of contamination caused by the conditions on your premises, we reserve the right to require additional site characterization and/or remediation.

Although the closure report as submitted enables the Department to determine that no further action is needed, please be advised that the case file for this facility will not be complete until the following information is received:

Documentation of proper disposal of the contaminated soil.

CLAYTON SERVICES CORPORATION

ENVIRONMENTAL COMPLIANCE CONSULTING & CONTRACTING

THE THE REAL PROPERTY OF A PROPERTY OF THE PRO

1201 BETHLEHEM PIKE, SUITE 105, NORTH WALES, PA 19454 (215) 362-6400 (215) 362-6481 FAX

October 1, 1997

Mr. Steve Moran Herr Foods Inc. PO Box 300 Nottingham, PA 19362

Re:

"Narrative Report"

Underground Storage Tank Project USTIF Claim Number: 97-175(F) PADEP Facility ID # 15-24418

Dear Steve,

At the request of ICF Kaiser, Clayton Services Corporation is providing the following summary of activities and remedial actions which took place during your underground storage tank removal/replacement project. This summary is in addition to the Tank Closure Report dated 7/2/97, which was prepared by Clayton and submitted to the PADEP and ICF Kaiser.

Overview

Herr Foods, Inc. contracted with Enercon Services (Enercon) of Bear, DE for the removal and replacement of the underground storage tanks located at their Nottingham, PA maintenance garage facility. A total of five (5) underground storage tanks (USTs) were removed and replaced with two (2) new double walled USTs. Clayton Services Corporation (Clayton) was subcontracted by Enercon to perform all of the required PADEP tank closure soil sampling and reporting. The project was conducted between May 28, 1997 and concluded in early August 1997. The following underground storage tanks (USTs) were removed and replaced, as noted:

Removal:

(1) 1,000-gallon Waste Oil (Tank 007)

(1) 4,000-gallon New Motor Oil (Tank 003)

(1) 4,000-gallon Unleaded Gasoline (Tank 004)

(1) 15,000-gallon Unleaded Gasoline (UST 005) "leaking"

(1) 12,000-gallon Diesel (Tank 006) "leaking"

Install:

(1) 10,000-gallon Diesel

(1) 10,000-gallon Gasoline

Page 2 October 1, 1997 Mr. Steve Moran Herr Foods Inc.

Release Incident

In or around February of 1997, Herr Foods Inc. discovered an accumulation of water within their 12,000-gallon diesel UST. Upon further investigation and tank testing, it was determined that the diesel UST was indeed leaking. Herr Foods Inc. immediately removed all the product from the tank and started proceedings to contract for the removal of all five USTs and the installation of a new two tank double walled system.

On May 28, 1997, Enercon Services cleaned and removed the three smaller USTs. During the excavation of backfill material necessary to remove USTs 003 and 004, excessive petroleum vapors were evident in the excavated backfill soil and soils with elevated field readings were stockpiled on and under plastic. Soils were screened by Michael Williams of Clayton with a Foxboro OVA 128 Flameionization Detector (FID). Although neither Tank 003 nor 004 contained any visible holes, backfill material which was also common to other on-site USTs exhibited excessive petroleum odors. The Pennsylvania Department of Environmental Protection (PADEP) was notified on May 28, 1997 of the suspected release and a Notice of Contamination form was subsequently submitted, as required.

Due to the tight confines of the site and the logistics of the large excavation required for the removal of USTs 005 and 006, tank removal operations were continued on June 4, 1997. On June 4, 1997, Enercon removed the two remaining USTs. Several holes were discovered in Tank 006 and only "weep type" holes were discovered in Tank 005. After a discussion with the Owner regarding the release claims process, the Underground Storage Tank Indemnification Fund (USTIF) was contacted on June 6, 1997.

Extent of Contamination

Impacted soils were field screened and stockpiled between June 4 and June 6, 1997. Because the site is underlain by a very tight silty schist material, it appears the contamination was limited to the common backfill material surrounding the four larger removed USTs. The removed 1,000-gallon waste oil UST (Tank 007) was remote from the other four USTs and did not exhibit any soil odors nor elevated field FID readings. All laboratory analytical results indicated soils below any pertinent PADEP cleanup levels for the waste oil excavation.

Soils around Tanks 005 and 006 and their associated pump islands were excavated until diminished field readings were obtained. It was discovered that contamination had reached the backfill material surrounding Tanks 003 and 004

Herr USTIF summary.wps

Page 3 October 1, 1997 Mr. Steve Moran Herr Foods Inc.

and had also impacted the soils beneath the removed pump islands. Contamination appeared to be a result of the release of product from Tanks 005 and 006 which accumulated in the more permeable backfill material used around the existing USTs. Due to the tight non-permeable nature of the surrounding virgin soils, trapped surface water was accumulated within the large excavation and appeared to contribute to the migration of the released diesel and gasoline compounds to adjoining backfill material. Any accumulated surface water within the excavation was removed, containerized, sampled, and discharged after PADEP approval. Treatment and sampling of the trapped surface water was necessary prior to final discharge due to the documented release. No groundwater was apparently encountered during this project and all horizontal and vertical contaminant migration appeared to diminish at the backfill/virgin soil interface. Post excavation soil samples revealed only several areas which were slightly above the PADEP Action Levels for Methyl Tertiary Butyl Ether (MTBE) and Naphthalene. No other compounds of concern were elevated above the PADEP action levels.

Remedial Options and Choices

The remedial options for the proper treatment of the contaminated soil was limited by the installation of replacement USTs. Soils expected to be utilized in backfilling and restoration of the site were impacted and could not be reused. Also, since the new tanks had to be installed within the impacted area, future treatment would surely be hampered by short circuiting and interference of treatment methodologies. Since the impacted media appeared to be limited to the backfill material of the removed USTs, soil removal was chosen as the most effective and safest option to eliminate the contaminant source.

The risks of leaving impacted soils in place was intensified by the presence of trapped surface water within the excavation. The "bathtub effect" of less permeable tank excavations often leads to surface water infiltration, filtering, and enhanced migration of contaminants. In addition, the immediate area is served by private wells and the risks associated with leaving source contaminant material in-place are greater. All soils which were accessible and which would not impact the structural integrity of the adjacent building were removed and stockpiled.

Since the site is a producer of public food products and any newly installed tanks would limit remedial effectiveness, the choice was made to remove the impacted soils and dispose at an approved disposal facility. The impacted soils appear to have been removed and the amount of stockpiled soil is estimated at 1,100 to 1,300 tons. The soil is currently stockpiled at the site awaiting proper disposal.

Page 4 October 1, 1997 Mr. Steve Moran Herr Foods Inc.

Estimated Cost of Remediation

Costs incurred to date and which are anticipated are as follows:

1) Loading contaminated soil for staging	\$ 2,340.00
- \$1,170/day x 2 days	
2) Staging & Stockpiling of Contaminated Soil	\$ 4,500.00
- labor, hauling, plastic - 750 cu. yd.	
3) Select Fill over base bid 587.75 tons compacted	\$ 9,991.75
4) Pea Gravel over base bid (110.25 tons)	\$ 2,701.13
5) Frac Tank, pump water, carbon filter (lot)	\$ 5,896.00
Lab Testing of Stockpiled Soil and Frac Tank Water	\$ 3,100.00
7) Environmental Consultant Oversight and Reporting	\$ 3,500.00
8) Soil Loading, Transport, and Disposal	<u>\$ 86,400.00</u>
- 1,200 tons @ \$72/ton	
Anticipated Total	\$118,428.88

Note: This total is for <u>current</u> remedial measures. Although it appears the PADEP will not require any further action at this site, additional costs may be encountered if the PADEP requires any additional subsurface investigation.

Conclusions

The majority of the impacted soils surrounding the USTs appears to have been removed during overexcavation and stockpiling activities. Post tank removal laboratory results are contained within the Tank Closure Report dated 7/2/97. Michael Williams has had several discussions with Susan Kishbaugh and Kathy Nagle of the PADEP regarding the remedial measures and closure status of this site. After reviewing the post removal soil sample analytical results and the nature of site contamination, the PADEP did not anticipate requiring any further remedial measures. Final review and approval of the remedial measures as outlined in the Tank Closure Report is pending from the PADEP.

I have attached the soil, frac tank water discharge, and the stockpile laboratory results for your inclusion of requested claims material. Please contact our office with any questions regarding this project or your claims process.

Sincerely,

Michael Williams Project Manager

Clayton Services Corporation

Herr USTIF summary.wps



07/18/97 04:39pm

MICHAEL WILLIAMS CLAYTON SERVICES CORPORATION 3003 HARVARD DRIVE NORTH WALES, PA 19454 Regarding:

MICHAEL WILLIAMS CLAYTON SERVICES CORPORATION 3003 HARVARD DRIVE NORTH WALES. PA 19454

	CLAYTON SERVICES CORPORATION CLAYTON SERVICES CORPORATION	P.O. No: PWSID No:	Inv. No:
Sample Number 1241167-1	Sample Description HERR FOOD INC SP-3 SOIL		e/Time/Temp Sampled by 08:00am NA°F Customer Sampled
Parameter BENZENE TOLUENE ETHYL BENZENE M/P-XYLENE O-XYLENE ISOPROPYLBENZENE NAPHTHALENE METHYL TERTIARY BL TOTAL SOLIDS PERCE		7280 ug/kg DRY 3 160000 ug/kg DRY 6 63100 ug/kg DRY 6 251000 ug/kg DRY 6 97800 ug/kg DRY 6 5340 ug/kg DRY 3 21600 ug/kg DRY 6 529. ug/kg DRY 6	POL Test Date 100. ug/kg 07/17/97 1010 ug/kg 07/18/97 1010 ug/kg 07/17/97 1010 ug/kg 07/17/97 1010 ug/kg 07/17/97
Sample Number L241167-2	Sample Description SP-4 SOIL		ce/Time/Temp Sampled by 08:00am NA°F Customer Sampled
Parameter BENZENE TOLUENE ETHYL BENZENE M/P-XYLENE 0-XYLENE ISOPROPYLBENZENE MAPHTHALENE METHYL TERTIARY BU TOTAL SOLIOS PERCE		775. ug/kg DRY 439. ug/kg DRY 1660 ug/kg DRY 3850 ug/kg DRY ND ug/kg DRY 5120 ug/kg DRY ND ug/kg DRY	PQL Test Date 105. ug/kg 07/17/97 1000 \$ 07/17/97

A result of "ND" indicates the concentration of the analyte tested was either not detected or below the PQL.

QC INC's laboratory certification numbers are: PADER 09-131: NJDEP 77166; NC 488; NY.CT.DE and MD UPON REQUEST.

Definitions: ND—not detected; NEG-negative: POS-positive: COL-colonies: PQL-practical quanitation level: L/A-laboratory accident: TNTC-too numerous to count

A result marked with "DRY" indicates that the result was calculated and reported on a dry weight basis.

Allen D. Schopbach, President

- 1 -

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1205 INDUSTRIAL HIGHWAY • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900 ANALYTICAL DATA REPORT PACKAGE

FOR

CLAYTON SERVICES CORPORATION

Field	Laboratory	Date of		
Sample ID	Sample ID	Collection		
DISCHARGE-1 H20	L238723-1	07/03/97		

Certification No.

PADEP No. 09-131 NJDEP No. 77166





07/28/97 03:35pm

Inv. No: 119078

Regarding:

P.O. No:

PWSID No:

MICHAEL WILLIAMS
CLAYTON SERVICES CORPORATION 3003 HARVARD DRIVE NORTH WALES, PA 19454

MICHAEL WILLIAMS CLAYTON SERVICES CORPORATION 3003 HARVARD DRIVE NORTH WALES, PA 19454

ACCOUNT NO: BOO111, CLAYTON SERVICES CORPORATION Project No: BOO111, CLAYTON SERVICES CORPORATION

Samp. Date/Time/Temp

Sampled by Customer Sampled

Sample Number L238723-1 Sample Description DISCHARGE-1 H20 07/03/97 11:00am NA°F

Parameter	Method	Result	PQL	Test Date	
DICHLORODIFLUOROMETHANE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
CHLOROMETHANE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
VINYL CHLORIDE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
BROMOMETHANE -	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
CHLORGETHANE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
TRICHLOROFLUOROMETHANE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
1,1-DICHLOROETHENE	EPA Method 8021A	ND ug/l	0.500 u g/l	07/16/97	
METHYLENE CHLORIDE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
TRANS-1,2-DICHLOROETHENE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
1,1-DICHLOROETHANE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
2,2-DICHLOROPROPANE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
CIS-1,2-DICHLOROETHENE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
CHLOROFORN	EPA Method 8021A	ND ug/l	0.500 ug/i	07/16/97	
BROMOCHLOROMETHANE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
1,1,1-TRICHLOROETHANE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
1.1-DICHLOROPROPENE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
CARBON TETRACHLORIDE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
1,2-DICHLOROETHANE	EPA Method 8021A	ND ug/l	0.500 ug/t	07/16/97	
TRICHLOROETHENE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
1,2-DICHLOROPROPANE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
BROMODICHLOROMETHANE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
DIBROMOMETHANE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
CIS-1,3-DICHLOROPROPENE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
TRANS-1.3-DICHLOROPROPENE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
1,1,2-T.ICHLOROETHANE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
1,3-DICHLOROPROPANE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
TETRACHLOROETHENE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
DIBROMOCHLOROMETHANE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
1,2-DIBROMOETHANE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
1,1,1,2-TETRACHLOROETHANE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
BROMOFORM	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
1,1,2,2-TETRACHLOROETHANE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
1,2,3-TRICHLOROPROPANE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
1,2-DIBROMO-3-CHLOROPROPANE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
BENZENE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	
TOLUENE	EPA Method 8021A	ND ug/l	0.500 ug/l	07/16/97	

A result of "ND" indicates the concentration of the analyte tested was either not detected or below the PQL. QC inc's laboratory certification numbers are: PADER 09-131; NJDEP 77166, NC 488, NY CT,DE, and MD upon request.

Definitions: ND=not detected; NEG=negative; POS=positive; COL=colonies; PQL=practical quantitation level; L/A=laboratory accident; TNTC=too numerous to count. A result marked with "DRY" indicates that the result was calculated and reported on a dry weight basis.

QC INC. • 1205 INDUSTRIAL BLVD. • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900

VINELAND DIVISION VINELAND, NJ (609) 563-0101

MAE MALLOY DIVISION WILDWOOD, NJ (609) 522-9000

RITCHESON DIVISION PITMAN, NJ (609) 582-1919 AMBLER DIVISION



07/28/97 03:35pm

MICHAEL WILLIAMS
CLAYTON SERVICES CORPORATION 3003 HARVARD DRIVE NORTH WALES, PA 19454

Regarding:

MICHAEL WILLIAMS CLAYTON SERVICES CORPORATION 3003 HARVARD DRIVE NORTH WALES, PA 19454

Account No: BOO111, CLAYTON SERVICES CORPORATION Project No: B00111, CLAYTON SERVICES CORPORATION

P.O. No: PWSID No: Inv. No: 119078

Sample Number Sample Description Samp. Date/Time/Temp

Sampled by

DISCHARGE-1 H20 D7/03/97 11:00am Customer Sampled

Method Test Date Parameter Result CHLOROBENZENE EPA Method 8021A 0.500 ug/l ND ug/l 07/16/97 EPA Method 8021A ETHYL BENZENE ND ug/l 0.500 ug/l 07/16/97 EPA Method 8021A 0.500 ug/l M/P-XYLENE ND ug/l 07/16/97 O-XYLENE EPA Method 8021A ND ug/l 0.500 ug/l 07/16/97 STYRENE EPA Method 8021A 0.500 ug/l ND ug/l 07/16/97 **I SOPROPYLBENZENE** EPA Method 8021A ND ug/l 0.500 ug/l 07/16/97 0.500 ug/L N-PROPYLBENZENE EPA Method 8021A ND ug/l 07/16/97 0.500 ug/l BROMOBENZENE EPA Method 8021A ND ug/l 07/16/97 1.3.5-TRIMETHYLBENZENE EPA Method 8021A ND ug/l 0.500 ug/l 07/16/97 2-CHLOROTOLUENE EPA Method 8021A ND ug/l 0.500 ug/l 07/16/97 4-CHEOROTOLUENE EPA Method 8021A ND ug/l 0.500 ug/l 07/16/97 TERT-BUTYLBENZENE EPA Method 8021A ND ug/l 0.500 ug/l 07/16/97 1,2,4-TRIMETHYLBENZENE EPA Method 8021A ND ug/l 0.500 ug/l 07/16/97 0.500 ug/l SEC-BUTYLBENZENE EPA Method 8021A ND ug/l 07/16/97 PARA-ISOPROPYLTOLUENE EPA Method 8021A ND ug/L 0.500 ug/l 07/16/97 1,3-DICHLOROBENZENE EPA Method 8021A 0.500 ug/l ND ug/l 07/16/97 1,4-DICHLOROBENZENE EPA Method 8021A 0.500 ug/l ND ug/l 07/16/97 N-BUTYLBENZENE EPA Method 8021A ND ug/l 0.500 ug/l 07/16/97 1.2-DICHLOROBENZENE EPA Method 8021A ND ug/l 0.500 ug/l 07/16/97 1,2,4-TRICHLOROBENZENE EPA Method 8021A 0.500 ug/l 07/16/97 ND ug/l HÉXACHLOROBUTAD JENE EPA Method 8021A ND ug/l 0.500 ug/l 07/16/97 ND ug/l 0.500 ug/l NAPHTHALENE EPA Method 8021A 07/16/97 1,2,3-TRICHLOROBENZENE EPA Method 8021A ND ug/l 0.500 ug/L 07/16/97 METHYL JERTIARY BUTYLETHER EPA Method 8021A 0.500 ug/L ND ug/l 07/16/97 TERTIARY BUTYL ALCOHOL 0.500 ug/l EPA Method 602 ND ug/l 07/17/97

A result of "ND" indicates the concentration of the analyte tested was either not detected or below the PQL QC inc's laboratory certification numbers are: PADER 09-131; NJDEP 77166, NC 488, NY,CT,DE,and MD upon request. Definitions: ND=not detected; NEG=negative; POS=positive; COL=colonies; PQL=practical quanitation level; L/A=laboratory accident; TNTC=too numerous to count. A result marked with "DRY" indicates that the result was calculated and reported on a dry weight basis.

- 2 -

Jaden D. Sonanthorn, Meridon

QC INC. • 1205 INDUSTRIAL BLVD. • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900 VINELAND DIVISION VINELAND, NJ (609) 563-0101

MAE MALLOY DIVISION WILDWOOD, NJ (609) 522-9000 RITCHESON DIVISION

AMBLER DIVISION

PITMAN, NJ (609) 582-1919 1/14/20915 3:40.549 PM7

Lab Name/Code : QC Inc./77166	CONTRACT : Clayton L238723-1								
	Sample No:Method Blank								
Lab Sample ID : Method Blank	Date Re								
Matrix : Water				: 07/15/9					
Sample wt/vol : 5ml.	Date An								
Level (low/med) : Low		n Factor		: 1.0					
Lab File (Primary-Hall) : CG15002		e (Confirm		=					
Lab File (Primary-PID) : DG15002	-	e (Confirm	-PID)	:					
Column : 105M x 0.53mm V	OCOL								
		noout m							
CAS NO. COMPOUND	POL	RESULT	•						
	(ug/L)	(ug/L)	•	<i>;</i>					
4			·····						
1 75 71 0 Disklemediaflyenemethers	0.5 <u>l</u>	0.5	י ו ט	1					
75-71-8Dichlorodifluoromethane	<u> </u>	0.5	1 0	, * •					
74-87-3Chloromethane	<u> </u>		<u>, , , , , , , , , , , , , , , , , , , </u>	.' •					
75-01-4Vinyl Chloride	0.5		l U	,1- 1					
1 74-83-9Bromomethane				.!					
75-00-3Chloroethane	<u>0.5</u>	0.5	<u> i ii i </u>	.'					
75-69-4Trichlorofluoromethane		0.5	<u> 1 U </u>						
1 75-35-41,1-Dichloroethene	<u> </u>	0.5	<u> 1 U </u>	-!					
75-09-2Methylene Chloride	<u> 0.5 l</u>	0.5	<u>ı u</u>	.1					
1 156-60-5trans-1, 2-Dichloroethene		<u>0.5</u>	ו ט	_1					
! 75-34-31,1-Dichloroethane	0.5	0.5	<u> 1 U </u>	_1					
1 590-20-72, 2-Dichloropropane	0.5	0.5	l U	_1					
156-59-4cis-1,2-Dichloroethene	0.5	0.5	ı u	_1					
67-66-3Chloroform	0. 5	0.5	ıu	1					
1 74-97-5Bromochloromethane		Ø.5	ıu	ī					
! 71-55-61,1,1-Trichloroethane		0.5	l U						
1 563-58-61,1-Dichloropropene		0.5	1 U	- i					
· · · · · · · · · · · · · · · · · · ·		0.5	ı U	 1					
		0.5	1 U	_' -					
			ו ט	~ '					
79-01-6Trichloroethene				-',					
78-87-51,2-Dichloropropane		0.5	<u> </u>	-!					
	·	0.5	<u> 1 U</u>	-!					
74-95-3Dibromomethane	· 	0.5	<u> 1 U</u>	_!					
1 10061-01-5-cis-1,3-Dichloropropene	·	0.5	<u> </u>	_1					
10061-02-6-trans-1,3-Dichloropropene	'	ı <u>0.5</u>	<u> </u>	_1					
79-00-51,1,2-Trichloroethane	0.5	0.5	<u> 1 U</u>	_l					
142-28-91, 3-Dichloropropane	0.5	0.5	1 <u>U</u>	_1					
1 127-18-4Tetrachloroethene	0.5	0.5	ı <u>u</u>	ี เ					
124-48-1Dibromochloromethane	0.5	0.5	ו נ	_1					
1 106-93-41, 2-Dibromoethane		0.5	ı U	_1					
1 630-20-61, 1, 1, 2-Tetrachloroethane		ı Ø.5	ı u	- ₁					
75-25-2Bromoform	·	1 0.5	ιυ	_· 					
	-	0.5	i U	- <u>'</u>					
1 79-34-51, 1, 2, 2-Tetrachloroethane	· · · · · · · · · · · · · · · · · · ·	, 0.3		' 					
I				_•					

Lab Name/Code : QC Inc./77166	CONTRACT : Clayton L238723-1							
Lab Sample ID : Method Blank	Sample No: Method Blank							
Matrix : Water	Date Re	ceived	:					
Sample wt/vol :Sml.	Date An			07/15/9				
Level (low/med) : Low		n Factor		1.0				
Lab File (Primary-Hall) : CG15002		e (Confirm-						
		e (Confirm-						
		E (OUNTEL M						
Column : 105M x 0.53mm V0	COC							
GLG NO GONDOUND	PQL.	RESULT	Q					
CAS NO. COMPOUND	(ug/L)	(ug/L)	-					
	(ug/L/	(ug, E,		•				
		1		i i				
i as an a second second	0.5	0.5	iui	' 				
1 96-18-41, 2, 3-Trichloropropane		1 0.5	u i					
1 96-12-81,2-Dibromo-3-Chloropropane_	0. 5	0.5	<u> </u>	I				
71-43-2Benzene		1 0.5	U I	1				
108-88-3Toluene	0.5		<u> </u>) 				
1 108-90-7Chlorobenzene	0.5) •				
100-41-4Ethylbenzene	0.5	0.5	<u> </u>	ļ				
para/meta-Xylene	0.5	0.5		; •				
95-47-6ortho-Xylene	0.5	1 0.5	<u> </u>	•				
100-42-5Styrene	0.5	1 . 0.5	<u> </u>					
98-82-8Isopropylbenzene	1 0.5	1 0.5	<u> </u>	<u> </u>				
1 104-51-8n-Propylbenzene	1 0.5	1 0.5	<u> 1 U</u>	[-				
108-86-1Bromobenzene	i <u>0.5</u>	1 0.5	i U	1				
108-67-81,3,5-Trimethylbenzene	1 <u>0.5</u>	1 0.5		<u> </u>				
! 95-49-82-Chlorotoluene	1 <u>0.5</u>	0.5	<u>ı u</u>	1				
106-43-44-Chlorotoluene	ı <u> 0.5</u>	1 0.5	<u>l U</u>					
98-06-6tert-Butylbenzene	1	1 0.5	<u> 1 U</u>	1 '				
95-63-61,2,4-Trimethylbenzene	10.5	1 0.5	<u> 1 U</u>	1				
135-98-8sec-Butylbenzene	0.5	1 0.5		1				
98-82-8para-Isopropyltoluene	10.5			1				
	1 0.5		<u> 1 U</u>	1				
106-46-71, 4-Dichlorobenzene	10.5	<u> 0.5</u>	<u> 1 U</u>	1				
104-51-8n-Butylbenzene		1 0.5	<u>ı u</u>	, I				
95-50-11, 2-Dichlorobenzene	1 0.5	1 0.5	<u>l U</u>	Į.I.				
120-82-11, 2, 4-Trichlorobenzene	1 0.5	ı <u>0.5</u>	l U	.1				
87-68-3Hexachlorobutadiene	0.5	1 0.5	ı u	.1				
91-20-3Naphthalene	0.5	1 0.5	<u> 1 U </u>	.1				
87-61-61, 2, 3-Trichlorobenzene	0.5	1 0.5	<u>เบ</u>	.1				
1634-04-4MTBE	0.5	I Ø.5	I U	1				
1	<u> </u>			1				
SURROGATE RECOVERY DATA	1	Percent I	₽ C	1				
I SURROUNIE RECUIERI DRIN	1	Recovery I		1 .				
1,4-Dichlorobutane (Hall)			60-130	-				
Bromochlorobenzene (Hall)		93 I	60-130	-				
Bromochlorobenzene (PID)	 		60-130	•				
1 promocutoropensene (tru)	•,			<u>.</u> 1				

Lab Name/Code : QC Inc./77166	CONTRACT	: Clayt	on L238723			
Lab Sample ID : Method Blank	Sample No:Method Blank					
Matrix : Water	Date Rec		:			
Sample wt/vol : 5ml.	Date Ana	lyzed	: 07			
Level (low/med) : Low	Dilution	-	:			
Lab File (Primary-Hall) : CG16002		(Confirm-				
Lab File (Primary-PID) : DG16002		(Confirm-				
Column : 105M x 0.53mm						
. 100.0 × 0.00						
CAS NO. COMPOUND	PQL.	RESULT	Q			
CAD No.	(ug/L)	(ug/L)				
	1.297.27					
1	1 1		1			
1 75-71-8Dichlorodifluoromethane	1 0.5 1	0.5	1 U I			
1 74-87-3Chloromethane		0.5	1 U I			
75-01-4Vinyl Chloride		0.5	1 8 1			
74-83-9Bromomethane		0.5	ושו			
1 75-00-3Chloroethane	1 0.5 1	0.5	ו ט ו			
1 75-69-4Trichlorofluoromethane		0.5	l U I			
75-35-41,1-Dichloroethene		0.5	ו טו			
•	1 0.5 1	0.5	1 U 1			
1 156-60-5trans-1,2-Dichloroethene	· ·	0.5	1 U I			
75-34-31,1-Dichloroethane	0.5	0.5	ו ט ו			
1 590-20-72, 2-Dichloropropane	. 0.5 I	0.5	<u></u> .			
1 156-59-4cis-1, 2-Dichloroethene		Ø. 5	ו ט ו			
		0.5	1 U			
67 ¹ -66-3Chloroform		0.5	1 0 1			
1 74-97-5Bromochloromethane	! <u>0.5 </u> 0.5	0.5	1 11 1			
71-55-61,1,1-Trichloroethane		0.5	<u>່</u> ບ			
1 563-58-61,1-Dichloropropene		Ø.5	<u>י</u> ט י			
56-23-5Carbon Tetrachloride	1 0.5 1					
107-06-21, 2-Dichloroethane	0.5 1	0.5	<u> </u>			
79-01-6Trichloroethene		0.5	<u> U </u>			
78-87-51, 2-Dichloropropane		0.5	<u> </u>			
75-27-4Bromodichloromethane		0.5	<u> </u>			
74-95-3Dibromomethane	1 0.5 1	<u>0.5</u>	<u> 1 U</u> I			
10061-01-5-cis-1,3-Dichloropropene	1 <u>0.5</u> 1	0.5	<u> 1 'U</u> 1			
10061-02-6-trans-1,3-Dichloropropene	1 <u>0.5</u> 1	0.5	<u> 1 U</u> I			
79-00-51,1,2-Trichloroethane	1 <u>0.5 1</u>		<u> 1 U</u> 1			
1 142-28-91, 3-Dichloropropane	1_0.5_1	0.5	<u>l U</u> 1			
l 127-18-4Tetrachloroethene	_1 <u>0.51</u>	0.5	<u>ı u</u> ı			
124-48-1Dibromochloromethane	ı <u>0.5 l</u>	0.5	<u>1 U</u> I			
1 106-93-41, 2-Dibromoethane	i 0.5 1	0.5	<u>1 U</u> I			
630-20-61, 1, 1, 2-Tetrachloroethane	1 0.5 1	0.5	l U I			
75-25-2Bromoform_	ı 0.5 <u>l</u>	0.5	<u> </u>			
1 79-34-51, 1, 2, 2-Tetrachloroethane_	ı <u>0.5 l</u>	0.5	I U I			
1						

ab Name/Code : OC Inc./77166	CONTRACT : Clayton L238723-1
	<u> </u>
ab Sample ID : <u>Method Blank</u>	Sample No: Method Blank
Matrix :Water	Date Received :
Sample wt/vol : 5ml.	Date Analyzed : 07/16/
evel (low/med) : Low	Dilution Factor : 1.0
ab File (Primary-Hall) : CG16002	Lab File (Confirm-Hall) :
ab File (Primary-PID) : DG16002	Lab File (Confirm-PID) :
Column : $105M \times 0.53mm \times 0.5$	— · · · · · · · · · · · · · · · · · · ·
CAS NO. COMPOUND	POL RESULT O
	(ug/L) (ug/L)
96-18-41, 2, 3-Trichloropropane	
96-12-81,2-Dibromo-3-Chloropropane_	
71-43-2Benzene	0.5 1 0.5 1 11
108-88-3Toluene	1 0.5 1 0.5 1 11
108-90-7Chlorobenzene	1 0.5 1 0.5 1 U
100-41-4Ethylbenzene	1 <u>0.5 1 0.5 1 U</u> 1
para/meta-Xylene	! <u>0.5 0.5 U</u> !
95-47-6ortho-Xylene	1 <u>0.5 0.5 U</u> I
1 100-42-5Styrene	1 0.5 1 0.5 1 U I
98-82-8Isopropylbenzene	1 0.5 1 0.5 1 0
1 104-51-8n-Propylbenzene	
1 108-86-1Bromobenzene	
108-67-81,3,5-Trimethylbenzene	
1 95-49-82-Chlorotoluene	1 0.5 1 0.5 1 U I
	1 0.5 1 0.5 1 U t
1 98-06-6tert-Butylbenzene	1 0.5 1 0.5 1 U I
1 95-63-61, 2, 4-Trimethylbenzene	
	1 0.5 1 0.5 1 11
1 98-82-8para-Isopropyltoluene	· · · · · · · · · · · · · · · · · · ·
1 541-73-11,3-Dichlorobenzene	
1 106-46-71,4-Dichlorobenzene	1 0.5 1 0.5 1 U I
1 104-51-8n-Butylbenzene	
. 30 00 1 1/2 22000000000000000000000000000	
120-82-11, 2, 4-Trichlorobenzene	1 0.5 1 0.5 1 0 1
87-68-3Hexachlorobutadiene	1 0.5 1 0.5 1 11
91-20-3Naphthalene	1 0.5 1 0.5 1 U
87-61-61, 2, 3-Trichlorobenzene	1 0.5 1 0.5 1 0 1
1634-04-4MTBE	1 <u>0.5 0.5 U </u>
SURROGATE RECOVERY DATA	Percent QC
DUNNOGATE RECOVERT DATA	Recovery Limits
! 1,4-Dichlorobutane (Hall)	
Bromochlorobenzene (Hall)	102 60-130
Bromochlorobenzene (PID)	100 160-130

Lab Name/Code : QC Inc./77166	CONTRACT : Clayton L238723-1
Lab Sample ID : Method Blank	Sample No: Method Blank
Matrix : Water Sample wt/vol : 5ml Level (low/med) : low Lab File (Primary) : EG17004 Column : Supelcovax10/60M	Date Received : 07/17/97 Date Analyzed : 07/17/97 Dilution Factor : 1.0 Lab File (Confirm) : x 0.53mm
CAS NO. COMPOUND	POL RESULT O (ug/L)
75-65-ØTBAi	0.5 0.5 U
SURROGATE RECOVERY DATA	1 Percent QC
a, a, a-Trifluorotoluene	Recovery Limits

GAS CHROMATOGRAPHY VOLATILE SURROGATE RECOVERY DATA SHEET

	Lab Name/Code:	OC 3	[nc	. 177.	166	<u>. </u>		Contr	act:	Clayton	1 L23	38723	3-1
	Level:	•	r	O W				Case Num	ber:	VOCO	,		
	rever.			<u> </u>	-			60 Co.1	umn:	105M		53mm	
Dato	s of Analysis:	From	07	/15	, ,	77		00 00.	. Comin			301	
Date	s or wharage.					97	-	Instrument	TD:	HP5890	a-33°	AG	•
		, 0	<u>u,</u>	/10	<u> </u>	<u> </u>	•						
1		I S	1 1	S 2	1	s 3	1	Conc			1 Te	otal	-1
	Sample Number									Other	1 (Dut	1
ı		-1	1		-1-		- 1		1-		-1		- 1
1	Method Blank	1 10:	3 i	93	Ī	99	1	30			1		_1
	L238721-9 MS				1	125	1	30	1		1		1
Ī	L238721-9 MSD										\$		_1
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	# Co							lag recov Method OC					

List Surrogates Below:	WC Limits
S1: 1,4-Dichlorobutane (Hall)	60-130
S2: Bromochlorobenzene (Hall)	<u>60-130</u>
S3: Bromochlorobenzene (PID)	60-130

GAS CHROMATOGRAPHY VOLATILE SURROGATE RECOVERY DATA SHEET

Lab Name	/Code:	OC Ir	.c. /771	<u>.66</u>	Con	tract:	Clayton	L238723-1
1	Level:		Low		Case N		VOCOL	
					GC C	olumn:	105M x	0.53mm
Dates of Ana	lysis:		07 /16/ 07 /16/		Instrume	nt ID:	HP5890-	-3310A
		1 5 1	1 S 2	1 S 3	I Conc		·	Total
Sample	Number				1 Added u			
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Column to be used to flag recovery values * Values outside of Method QC Limits

LIBE Bullogates below.	GO DIMITED
S1: 1,4-Dichlorobutane (Hall)	60-130
S2: Bromochlorobenzene (Hall)	60-130
S3: Bromochlorobenzene (PID)	60-130

GAS CHROMATOGRAPHY VOLATILE SURROGATE RECOVERY DATA SHEET

Lab Name/Code:	QC Inc./77166	Contract:	Clayton L238723-1
		Case Number:	
Level:	Low	GC Column:	Supelcowax10/ 60M x 0.53mm
Dates of Analysis:	From <u>07/17/97</u> To <u>07/17/97</u>	Instrument ID:	Varian 3300-5651

				·			
	1	S 1	!	S 2	Conc		Total
Sample Number	1	(#)	1	(#)	Added ug/L	Other	1 Out
	1		!-		-		1
Method Blank		89	1		1 30 <u>l</u>		1
L238723-1	1	87	l		1 30 1		!
L241038-2 NS	1	92	<u>t</u>		1 30 1		1
L241038-2 MSD	1	94	1		1 30 1		1
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Column to be used to flag recovery values
* Values outside of Method QC Limits

List Surrogates Below:	QC Limits
S1: a,a,a~Trifluorotoluene	70-123
S2:	
Other:	· · · · · · · · · · · · · · · · · · ·

VOLATILE LABORATORY MATRIX SPIKE SUMMARY

Lab ID:

L238721-9

Sample ID: Matrix Spike/Spike Duplicate
Analysis Date: 07/15/97

Client: Clayton L238723-1

Matrix: water

Lab Files: C/DG15007

Instrument ID:	HP5890-3110A	C/DG15008									
		MS	MSD	SAMPLE	MS		MSD			%REC	R\$D
CAS NO.	COMPOUND	CONC	CONC	CONC	%REC	#	%REC #	RSD	#	LIMITS	LIMITS
75-71-8	Dichlorodifluoromethane	8.56	4.84	0.00	86		48 *	39	*	60 - 130	20
74-87-3	Chloromethane	7.95	9.10	0.00	80		91	9.5		60 - 130	20
75-01-4	Vinyl Chloride	11.70	12.60	0.00	117		126	5.2		60 - 130	20
74-83-9	Bromomethane	7.13	7.39	0.00	71		74	2.5		60 - 130	20
75-00-3	Chloroethane	9.73	10.00	0.00	97		100	1.9		60 - 130	20
75-69-4	Trichlorofluoromethane	9.27	10.00	0.00	93		100	5.4		60 - 130	20
75-35-4	1,1-Dichloroethene	9.62	10.10	0.00	96		101	3.4		60 - 130	20
75-09-2	Methylene Chloride	11.20	11.10	0.00	112		111	0.6		60 - 130	20
156-60-5	trans-1,2-Dichloroethene	10.20	10.70	0.00	102		107	3.4		60 - 130	20
75-34-3	1,1-Dichloroethane	9.26	10.20	0.00	93		102	6.8		60 - 130	20
590-20-7	2,2-Dichloropropane	7.02	7.55	0.00	70		76	5.1		60 - 130	20
156-59-4	cis-1,2-Dichloroethene	7.69	8.61	0.00	77		86	8.0		60 - 130	20
67-66-3	Chloroform	8.22	9.25	0.00	82		93	8.3		60 - 130	20
74-97-5	Bromochloromethane	9.86	10.50	0.00	99		105	4.4		60 - 130	20
71-55-6	1,1,1-Trichloroethane	9.85	10.30	0.00	99		103	3.2		60 - 130	20
563-58-6	1,1-Dichloropropene	10.00	10.30	0.00	100		103	2.1		60 - 130	20
56-23-5	Carbon Tetrachloride	11.10	11.60	0.00	111		116	3.1		60 - 130	20
107-06-2	1,2-Dichloroethane	11.60	12.10	0.00	116		121	3.0		60 - 130	20
79-01-6	Trichloroethene	10.90	11.40	0.00	109		114	3.2		60 - 130	20
78-87-5	1,2-Dichloropropane	9.98	9.81	0.00	100		98	1.2		60 - 130	20
75-27-4	Bromodichloromethane	10.90	10.50	0.00	109		105	2.6		60 - 130	20
74-95-3	Dibromoethane	10.40	10.30	0.00	104		103	0.7	_	60 - 130	20
10061-01-5	cis-1,3-Dichloropropene	10.90	11.00	0.00	109		110	0.6		60 - 130	20
1,0061-02-6	trans-1,3-Dichloropropene	11.30	11.40	0.00	113		114	0.6		60 - 130	20
79-00-5	1,1,2-Trichloroethane	11.70	12.30	0.00	117		123	3.5		60 - 130	20
142-28-9	1,3-Dichloropropane	10.40	10.60	0.00	104		106	1.3		60 - 130	20
127-18-4	Tetrachloroethene	10.40	10.60	0.00	104		106	1.3		60 - 130	20
124-48-1	Dibromochloromethane	11.20	10.70	0.00	112		107	3.2		60 - 130	20
106-93-4	1,2-Dibromomethane	11.70	11.90	0.00	117		119	1.2		60 - 130	20
630-20-6	1,1,1,2-Tetrachloroethane	10.90	11.60	0.00	109		116	4.4		60 - 130	20
75-25-2	Bromoform	10.80	11.30	0.00	108		113	3.2		60 - 130	20

VOLATILE LABORATORY FORTIFIED BLANK SUMMARY

Lab ID:

L238721-9

Clier

Clayton L238723-1

Sample ID:

Matrix Spike/Spike Duplicate

Matrix: water

Lab Files:

s: C/DG15007

Analysis Date: 07/15/97 Instrument ID: HP5890-3110A

C/DG15008

Instrument ID:	HP3890-3110A	1 10	1.425	0.434701.73	146	Lych		I WALC I	DCD
		MS	MSD	SAMPLE	MS	MSD	DOD "	%REC	RSD
CAS NO.	COMPOUND	CONC	CONC	CONC	%REC #		RSD #		LIMITS
79-34-5	1,1,2,2-Tetrachloroethane	12.70	13.20	0.00	127	132 *	2.7	60 - 130	20 20
96-18-4	1,2,3-Trichloropropane	12.10	12.70	0.00	121		3.4	60 - 130	
96-12-8	DBCP	11.50	13.50	0.00	115	1 133	11	60 - 130	20
71-43-2	Benzene	9.04	9.31	0.00	90	93	2.1	60 - 130	20
108-88-3	Toluene	9.69	9.75	2.28	74	75	0.6	60 - 130	20
108-90-7	Chlorobenzene	9.41	9.55	0.00	94	96	1.0	60 - 130	20
100-41-4	Ethylbenzene	9.93	9.70	0.85	91	89	1.8	60 - 130	20
	para/meta-Xylene	21.40	20.20	3.56	89	83	4.9	60 - 130	20
95-47-6	ortho-Xylene	10.50	9.94	1.59	89 .	84	4.6	60 - 130	20
100-42-5	Styrene	10:20	9.93	0.00	102	99	1.9	60 - 130	20
98-82-8	lsopropylbenzene	9.72	9.74	0.00	97	97	0.1	60 - 130	20
104-51-8	n-Propylbenzene	10.40	10.00	0.00	104	100	2.8	60 - 130	20
108-86-1	Bromobenzene	9.85	9.78	0.00	99	98	0.5	60 - 130	20
108-67-8	1,3,5-Trimethylbenzene	10.20	9.82	0.00	102	98	2.7	60 - 130	20
95-49-8	2-Chlorotoluene	10.60	10.30	0.00	106	103	2.0	60 - 130	- 20
106-43-4	4-Chlorotoluene	10.70	9.87	0.00	107	99	5.7	60 - 130	20
98-06-6	tert-Butylbenzene	12.80	10.70	0.00	128	107	13	60 - 130	20
95-63-6	1,2,4-Trimethylbenzene	15.30	12.00	6.47	88	55 *	32 *	60 - 130	20
135-98-8	sec-Butylbenzene	10.10	11.50	0.00	101	115	9.2	60 - 130	20 .
98-82-8	para-Isopropyltoluene	10.00	10.70	0.00	100	107	4.8	60 - 130	20
541-73-1	1,3-Dichlorobenzene	9.72	10.10	0.00	97	101	2.7	60 - 130	20
106-46-7	1,4-Dichlorobenzene	9.75	9.86	0.00	98	99	0.8	60 - 130	20
1.04-51-8	n-Butylbenzene	12.50	11.40	0.00	125	114	6.5	60 - 130	20
95-50-1	1,2-Dichlorobenzene	11.60	9.72	0.00	116	97	12	60 - 130	20
120-82-1	1,2,4-Trichlorobenzene	12.20	12.10	0.00	122	121	0.6	60 - 130	20
87-68-3	Hexachlorobutadiene	11.10	11.90	0.00	111	119	4.9	60 - 130	20
91-20-3	Naphthalene	22.40	12.70	10.20	122	25	93	* 60 - 130	20
1634-04-4	MTBE	10.10	10.50	0.00	101	105	2.7	60 - 130	20
87-61-6	1,2,3-Trichlorobenzene	10.60	11.20	0.00	106	112	3.9	60 - 130	20
SURROGATE RECOVERY DATA				ECOVERY	· · · · · · · · · · · · · · · · · · ·	QC LI	IMITS		
1,4-Dichlorobe	itane (Hall)	MS	116	MSD	118	60 -	130		
Bromochlorobe	enzene (Hall)	MS	103	M\$D	97	60 -	130		
Bromochlorob	enzene (PID)	MS	125	MSD	107	60 -	130		

RPD: 3 out of 60 outside limits

Spike Recovery: 5 out of 120 outside limits
Results normalized to a base factor of 1 from a 1:5 dilution.

VOLATILE LABORATORY CHECK STANDARD

Lab ID:

10ppb Check Standard

Client:

Clayton

Sample ID:

10ppb Check Standard 07/16/97

L238723-1 Water

Analysis Date:

Matrix: Lab File:

C/DG15016

Instrument ID:

HP5890-3310A

msuument ib.	111 3070-331071						
		CHECK	CONC	CHECK		%REC	
CAS NO.	COMPOUND	CONC	ADDED	%REC	#	LIMITS	
75-71-8	Dichlorodifluoromethane	8.92	10.00	89	_	60 - 130	
79-34-5	1,1,2,2-Tetrachloroethane	11.80	10.00	118		60 - 130	
96-12-8	DBCP	11.00	10.00	110		60 - 130	
95-63-6	1,2,4-Trimethylbenzene	9.44	10.00	94		60 - 130	
91-20-3	Naphthalene	9.77	10.00	98		60 - 130	
SU	RROGATE RECOVERY DATA		%RECOV	ÆRY		,	
1,4-Dichlorobu	tane(Hall)		111				
Bromochlorobe	nzene(Hall)		104				
Bromochiorobe	enzene(PID)			60 - 130			

Recovery: 0 out of 11 outside limits.

Concentrations are ug/l. &=Result Incalculable. Z=Limits not yet established, #=Column used to flag recoveries.

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY 602

Lab ID:

L241038-2

Client:

Clayton L238723-1

Sample ID:

Matrix Spike/Spike Duplicate

Matrix:

Water

Analysis Date:

07/17/97

Lab Files:

EG17015

msuum	CIIL ID.

Varian 3300-5651

EG17016

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		MS	MSD	SAMP	MS	MSD			%REC	RPD
CAS NO.	COMPOUND	CONC	CONC	CONC	%REC #	%REC #	RPD	#	LIMITS	LIMITS
75-65-0	TBA	38.20	40.70	1.52	92	98	6.6		60 - 140	20
SURROGATE RECOVERY DATA		 	%RE	COVERY		QC L	IMITS			
a,a,a-Trifluorotolus	enc	MS:	92	MSD:	94	(70 -	123)			
Concentrations are uc/	1. &=Result Incalculable. Z=Li	mits not yet estat	lished. #=Colu	nn used to flag r	ecoveries.					

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

Concentrations are ug/l. &=Result incalculable. Z=Limits not yet established. #=Column used to flag recoveries.

		et. No. me/No. Hzpr Fox one No. Michael Dil	A 18956-0514 355-3900 356-7231 MOS TOC 215 14MS 315	CHAIN OF Page CarrierA Sample Ship	Owaybill No. Omient Date Order No. /Phone No.	Y RECORD	:	Lab Samp (FOR LAB US) Bill to: Class Report to:	ie ONLY) Ten Stevie	. Cap
	Field tdentification	Sample Description / Type	Date/Time Collected	Sample Container No./Type/Volume	Preser- vative		alysis Reque N		Condition on Receipt	Log In No.
	Bisch-1	1400 Direcharge	7/3/97	(3) 40 A VOA	HcL	2031 at a 1608	Lupe NAPT	MTBE, TBA.		
						<u>.:</u>		#3 Hel Vins	-Metris	
		-						Caustle pH HC! pH H2SO4 pH	CN DAG Mitropera Ber	
							· ·	H2304_pH Unpreserved	118040143	<u>Ma</u>
	-						1		<u> </u>	<u> </u>
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14/2015	(Signature/Affiliation 3. Relinquished ((Signature/Affiliation	by: Hat Clair	4E1	Time: 2 -4)	3. Re (Signat	ceived by: ure/Affiliation Add ceived by: ure/Affiliation	11/2	· · · · · · · · · · · · · · · · · · ·		90 -8 <i>-97</i> 95
3:11:02	4, Relinquished (Signature/Affiliation 5, Relinquished	ы. Бу:		Date: Date: Timo:	Signat 5. Re	ceived by: ore:Affiling()) (III) ceived by: ore:Affiliation)	MULLO		انسو: کریا Date:	<u> </u>
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367-6481

COPIES: White (Final Report) Yellow (QA Office) Pink (Sample Custody) Gold (Client/Field Representative)

Please TAX RESOLTS

015

3:11:02 PM

Comments / Special Instructions:



1205 INDUSTRIAL HIGHWAY • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900 ANALYTICAL DATA REPORT PACKAGE

FOR

CLAYTON SERVICES CORPORATION

Field Sample ID	Laboratory Sample ID	Date of Collection
HERR FOODS INC SP-COMP-1 SOIL	L238722-1	07/03/97
SP-COMP-2 SOIL	L238722-2	07/03/97

Certification No.

PADEP No. 09-131 NJDEP No. 77166



07/28/97 02:54pm

MICHAEL WILLIAMS CLAYTON SERVICES CORPORATION 3003 HARVARD DRIVE NORTH WALES, PA 19454

Regarding:

MICHAEL WILLIAMS CLAYTON SERVICES CORPORATION 3003 HARVARD DRIVE NORTH WALES, PA 19454

Account No: B00111, CLAYION SERVICES CORPORATION Project No: B00111, CLAYION SERVICES CORPORATION

P.O. No: PWSID No: Inv. No: 119077

Sample Number Sample Description

HERR FOODS INC SP-COMP-1 SOIL 07/03/97 11:00am NA°F

Samp. Date/Time/Temp Customer Sampled Sampled by

Parameter	Method	Result	PQL	Test Date	
SILVER-TCLP	SW846 Method 6010	ND mg/t	0.500 mg/l	07/11/97	
ARSENIC-TCLP	SW846 Method 6010	ND mg/l	0.500 mg/l	07/11/97	
BARIUM-TCLP	SW846 Method 6010	ND mg/l	10.0 mg/l	07/11/97	
CADMIUM-TCLP	SW846 Method 6010	ND mg/t	0.100 mg/l	07/11/97	
CHROMIUM-TCLP	SW846 Method 6010	ND mg/l	0.500 mg/l	07/11/97	
LEAD-TCLP	SW846 Method 6010	ND mg/l	0.100 mg/l	07/11/97	
SELENIUM-TCLP	SW846 Method 6010	ND mg/l	0.400 mg/l	07/11/97	
MERCURY-TCLP	SW846 Method 7470	ND mg/l	0.0200 mg/l	07/14/97	
DIESEL RANGE ORGANICS	API Method Rev 2	45.8 mg/kg DRY	5.94 mg/kg	07/11/97	
GASOLINE RANGE ORGANICS	API Method Rev 5	52.6 mg/kg DRY	5.94 mg/kg	07/10/97	
AROCLOR-1016	EPA Method 8080	ND mg/kg DRY	0.0357 mg/kg	07/14/97	
AROCLOR-1221	EPA Method 8080	ND mg/kg DRY	0.0357 mg/kg	07/14/97	
AROCLOR -1232	EPA Method 8080	ND mg/kg DRY	0.0357 mg/kg	07/14/97	
AROCLOR-1242	EPA Method 8080	ND mg/kg DRY	0.0357 mg/kg	07/14/97	
AROCLOR -1248	EPA Method 8080	ND mg/kg DRY	0.0357 mg/kg	07/14/97	
ARDCLOR-1254	EPA Method 8080	ND mg/kg DRY	0.0357 mg/kg	07/14/97	
ARDCLOR 1254	EPA Method 8080	ND mg/kg DRY	0.0357 mg/kg	07/14/97	
CHLOROMETHANE	EPA Method 8260	ND ug/kg DRY	11.9 ug/kg	07/09/97	
VINYL CHLORIDE	EPA Method 8260	ND ug/kg DRY	5.94 ug/kg	07/09/97	
BROMOMETHANE	EPA Method 8260	ND ug/kg DRY	11.9 ug/kg	07/09/97	
CHLOROETHANE	EPA Method 8260	ND ug/kg DRY	11.9 ug/kg	07/09/97	
1,1-DICHLOROETHENE	EPA Method 8260	ND ug/kg DRY	2.38 ug/kg	07/09/97	
ACETONE	EPA Method 8260	ND ug/kg DRY	5.94 ug/kg	07/09/97	
CARBON () ISULFIDE	EPA Method 8260	ND ug/kg DRY	11.9 ug/kg	07/09/97	
METHYLENE CHLORIDE	EPA Method 8260	ND ug/kg DRY	2.38 ug/kg	07/09/97	
TRANS-1,2-DICHLOROETHENE	EPA Method 8260	ND ug/kg DRY	2.38 ug/kg	07/09/97	
ACROLEIN	EPA Method 8260	ND ug/kg DRY	11.9 ug/kg	07/09/97	
ACRYLONITRILE	EPA Method 8260	ND ug/kg DRY	5.94 ug/kg	07/09/97	
1,1-DICHLOROETHANE	EPA Method 8260	ND ug/kg DRY	5.94 ug/kg	07/09/97	
VINYL ACETATE	EPA Method 8260	ND ug/kg DRY	11.9 ug/kg	07/09/97	
CIS-1,2-DICHLOROETHENE	EPA Method 8260	ND ug/kg DRY	2.38 ug/kg	07/09/97	
Z-BUTANONE	EPA Method 8260	ND ug/kg DRY	11.9 ug/kg	07/09/97	
CHLOROFORM	EPA Method 8260	ND ug/kg DRY	1.19 ug/kg	07/09/97	
1,1,1-TRICHLOROETHANE	EPA Method 8260	ND ug/kg DRY	1.19 ug/kg	07/09/97	
CARBON TETRACHLORIDE	EPA Method 8260	ND ug/kg DRY	2.38 ug/kg	07/09/97	
BENZENE	EPA Method 8260	ND ug/kg DRY	1.19 ug/kg	07/09/97	

A result of "UND" indicates the concentration of the analyte tested was either not detected or below the PQL. QC Inc's Laboratory certification numbers are: PADER 09-131; NJDEP 77166, NC 488, NY,CT,DE, and MD upon request. Definitions: ND=not detected; NEG=negative; POS=positive; COL=colonies; POL=practical quanitation level; L/A=laboratory accident; TNTC=too numerous to count. A result marked with "DRY" indicates that the result was calculated and reported on a dry weight basis.

- 1 -

Allen D. Schnibsch, Pregistere

QC INC. • 1205 INDUSTRIAL BLVD. • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900

VINELAND DIVISION VINELAND, NJ (609) 563-0101

MAE MALLOY DIVISION WILDWOOD, NJ (609) 522-9000

RITCHESON DIVISION PITMAN, NJ (609) 582-1919 1/14/20 AMBLER DIVISION



07/28/97 02:54pm

MICHAEL WILLIAMS CLAYTON SERVICES CORPORATION

3003 HARVARD DRIVE NORTH WALES, PA 19454 Regarding:

MICHAEL WILLIAMS CLAYTON SERVICES CORPORATION 3003 HARVARD DRIVE NORTH WALES, PA 19454

Account No: B00111, CLAYTON SERVICES CORPORATION

Project No: B00111, CLAYTON SERVICES CORPORATION

P.O. No: PWSID No: Inv. No: 119077

Sample Number Sample Description

L238722-1 HERR FOODS INC SP-COMP-1 SOIL 07/03/97 11:00am NA°F

Samp. Date/Time/Temp Sampled by Customer Sampled

				_
Parameter	Method	Result	PQL	Test Date
1,2-DICHLOROETHANE	EPA Method 8260	ND ug/kg DRY	2.38 ug/kg	07/09/97
TRICHLOROETHENE .	EPA Method 8260	ND ug/kg DRY	1.19 ug/kg	07/09/97
1,2-DICHLOROPROPANE	EPA Method 8260	ND ug/kg DRY	1.19 ug/kg	07/09/97
BRONODICHLOROMETHANE	EPA Method 8260	ND ug/kg DRY	1.19 ug/kg	07/09/97
2-CHLOROETHYL VINYL ETHER	EPA Method 8260	ND ug/kg DRY	11.9 ug/kg	07/09/97
CIS-1.3-DICHLOROPROPENE	EPA Method 8260	ND ug/kg DRY	5.94 ug/kg	07/09/97
4-METHYL-2-PENTANONE	EPA Method 8260	ND ug/kg DRY	11.9 ug/kg	07/09/97
TOLUENE	EPA Method 8260	ND ug/kg DRY	5.94 ug/kg	07/09/97
TRANS-1,3-DICHLOROPROPENE	EPA Method 8260	ND ug/kg DRY	5.94 ug/kg	07/09/97
1,1,2-TRICHLOROETHANE	EPA Method 8260	ND ug/kg DRY	2.38 ug/kg	07/09/97
TÉTRACHLOROETHENE	EPA Method 8260	ND ug/kg DRY	1.19 ug/kg	07/09/97
2-HEXANONE	EPA Method 8260	ND ug/kg DRY	11.9 ug/kg	07/09/97
DIBROMOCHLOROMETHANE	EPA Method 8260	ND ug/kg DRY	1.19 ug/kg	07/09/97
CHLOROBENZENE	EPA Method 8260	ND ug/kg DRY	2.38 ug/kg	07/09/97
ETHYL BENZENE	EPA Method 8260	ND ug/kg DRY	5.94 ug/kg	07/09/97
M&P-XYLENES	EPA Method 8260	ND ug/kg DRY	2.38 ug/kg	07/09/97
O-XYLENE	EPA Method 8260	ND ug/kg DRY	1.19 ug/kg	07/09/97
STYRENE	EPA Method 8260	ND ug/kg DRY	5.94 ug/kg	07/09/97
BROMOFORM	EPA Method 8260	ND ug/kg DRY	1.19 ug/kg	07/09/97
1,1,2,2-TETRACHLOROETHANE	EPA Method B260	ND ug/kg DRY	1.19 ug/kg	07/09/97
1.3-DICHLOROBENZENE	EPA Method B260	ND ug/kg DRY	5.94 ug/kg	07/09/97
1,4-DICHLOROBENZENE	EPA Method 8260	ND ug/kg DRY	5.94 ug/kg	07/09/97
1,2-DICHLOROBENZENE	EPA Method 8260	ND ug/kg DRY	5.94 ug/kg	07/09/97
NONE FOUND	EPA 8260 Library Search	ND ug/kg	3 - 3	07/09/97
TCLP EXTRACTION	SW846 Method 1311	COMPLETED		07/08/97
PAINT FILTER TEST	SW846 Method 9095	NEG		07/08/97
CYANIDE REACTIVE	SW846 Method 7.3.3.2	ND mg/kg	5.00 mg/kg	07/09/97
REACTIVE HYDROGEN SULFIDE	SW846 Method 7.3.4.2	ND mg/kg	5.00 mg/kg	07/09/97
FLASH POINT/IGNITABILITY	ASTM D 4982-89	>141 Deg. F	5.00 mg/ kg	07/09/97
MOISTURE PERCENT	STD Methods 18th Ed. 2540	15.86 %	0.01000 %	07/08/97
TOTAL SOLIDS PERCENT	STD Methods 18th Ed. 2540	84.14 %	0.01000 %	07/08/97
TOTAL SOLIDS FERGERI	515 Hechous 10th Eq. 2340	U4.14 A	A 6001010	01/00/71

A result of "ND" indicates the concentration of the analyte tested was either not detected or below the PQL.
QC Inc's laboratory certification numbers are: PADER 09-131; NJDEP 77166, NC 488, NY,CT,DE,and MD upon request.
Definitions: ND=not detected; NEG=negative; POS=positive; CDL=colonies; PQL=practical quantitation level; L/A=laboratory accident; TNTC=too numerous to count.

A result marked with "DRY" indicates that the result was calculated and reported on a dry weight basis.

- 2 -

Allen D. Schonhoch, President

QC INC. • 1205 INDUSTRIAL BLVD. • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900

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MAE MALLOY DIVISION WILDWOOD, NJ (609) 522-9000

RITCHESON DIVISION PITMAN, NJ (609) 582-1919 AMBLER DIVISION



07/28/97 02:54pm

MICHAEL WILLIAMS CLAYTON SERVICES CORPORATION 3003 HARVARD DRIVE NORTH WALES, PA 19454

Regarding:

MICHAEL WILLIAMS CLAYTON SERVICES CORPORATION 3003 HARVARD DRIVE NORTH WALES, PA 19454

Account No: BOO111, CLAYTON SERVICES CORPORATION

P.O. No: PWSID No:

Inv. No: 119077

Project No: BO0111, CLAYTON SERVICES CORPORATION

Sample Number Sample Description L238722-2

SP-COMP-2 SOIL 07/03/97 11:00am NA°F Samp. Date/Time/Temp

Sampled by

Customer Sampled

Parameter	Method	Result	PQL	Test Date
SILVER-TCLP	SW846 Method 6010	ND mg/l	0.500 mg/l	07/11/97
ARSENI C-TCLP	SW846 Method 6010	ND mg/l	0.500 mg/l	07/11/97
BARIUM-TCLP .	SW846 Method 6010	ND mg/l	10.0 mg/l	07/11/97
CADMIUM-TCLP	SW846 Method 6010	ND mg/l	0.100 mg/l	07/11/97
CHROMIUM-TCLP	SW846 Method 6010	ND mg/l	0.500 mg/l	07/11/97
LEAD-TCLP	SW846 Method 6010	ND mg/l	0.100 mg/l	07/11/97
SELENIUM-TCLP	SW846 Method 6010	ND mg/l	0.400 mg/l	07/11/97
MERCURY-TCLP	SW846 Method 7470	ND mg/l	0.0200 mg/l	07/14/97
DIESEL RANGE ORGANICS	API Method Rev 2	65.1 mg/kg DRY	6.56 mg/kg	07/11/97
GASOLINE RANGE ORGANICS	API Method Rev 5	107. mg/kg DRY	6.56 mg/kg	07/10/97
AROCLOR-1016	EPA Method 8080	ND mg/kg DRY	0.0393 mg/kg	07/14/97
AROCLOR-1221	EPA Method 8080	ND mg/kg DRY	0.0393 mg/kg	07/14/97
AROCLOR-1232	EPA Method 8080	ND mg/kg DRY	0.0393 mg/kg	07/14/97
AROCLOR-1242	EPA Method 8080	ND mg/kg DRY	0.0393 mg/kg	07/14/97
AROCLOR-1248	EPA Method 8080	ND mg/kg DRY	0.0393 mg/kg	07/14/97
AROCLOR-1254	EPA Method 8080	ND mg/kg DRY	0.0393 mg/kg	07/14/97
AROCLOR-1260	EPA Method 8080	ND mg/kg DRY	0.0393 mg/kg	07/14/97
CHLOROMETHANE	EPA Method 8260	ND ug/kg DRY	13.1 ug/kg	07/09/97
VINYL CHLORIDE	EPA Method 8260	ND ug/kg DRY	6.56 ug/kg	07/09/97
BROMOMETHANE	EPA Method 8260	ND ug/kg DRY	13.1 ug/kg	07/09/97
CHLOROETHANE	EPA Method 8260	ND ug/kg DRY	13.1 ug/kg	07/09/97
1,1-DICHLOROETHENE	EPA Method 8260	ND ug/kg DRY	2.62 ug/kg	07/09/97
ACETONE	EPA Method 8260	ND ug/kg DRY	6.56 ug/kg	07/09/97
CARBON DISULFIDE	EPA Method 8260	ND ug/kg DRY	13.1 ug/kg	07/09/97
METHYLENE CHLORIDE	EPA Method 8260	ND ug/kg DRY	2.62 ug/kg	07/09/97
TRANS-1,2-DICHLOROETHENE	EPA Method 8260	ND ug/kg DRY	2.62 ug/kg	07/09/97
ACROLE I N	EPA Method 8260	ND ug/kg DRY	13.1 ug/kg	07/09/97
ACRYLONITRILE	EPA Method 8260	ND ug/kg DRY	6.56 ug/kg	07/09/97
1,1-DICHLOROETHANE	EPA Method 8260	ND ug/kg DRY	6.56 ug/kg	07/09/97
VINYL ACETATE	EPA Method 8260	ND ug/kg DRY	13.1 ug/kg	07/09/97
CIS-1,2-DICHLOROETHENE	EPA Method 8260	ND ug/kg DRY	2.62 ug/kg	07/09/97
2-BUTANONE	EPA Method 8260	ND ug/kg DRY	13.1 ug/kg	07/09/97
CHLOROFORM	EPA Method 8260	ND ug/kg DRY	1.31 ug/kg	07/09/97
1,1,1-TRICHLOROETHANE	EPA Method 8260	ND ug/kg DRY	1.31 ug/kg	07/09/97
CARBON TETRACHLORIDE	EPA Method 8260	ND ug/kg DRY	2.62 ug/kg	07/09/97
BENZENE	EPA Method 8260	ND ug/kg DRY	1.31 ug/kg	07/09/97

A result of "ND" indicates the concentration of the analyte tested was either not detected or below the PQL.

QC Inc's laboratory certification numbers are: PADER 09-131; NJDEP 77166, NC 488, NY,CT,DE,and MD upon request.

Definitions: ND=not detected; NEG=negative; POS=positive; COL=colonies; PQL=practical quanitation level; L/A=Laboratory accident; TNTC=too numerous to count.

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- 3 -

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MAE MALLOY DIVISION WILDWOOD, NJ (609) 522-9000 RITCHESON DIVISION

AMBLER DIVISION PITMAN, NJ (609) 582-1919 1/14/2045.3A1215066 PUM



07/28/97 02:54pm

MICHAEL WILLIAMS CLAYTON SERVICES CORPORATION 3003 HARVARD DRIVE NORTH WALES, PA 19454

Regarding:

P.O. No:

PWSID No:

MICHAEL WILLIAMS CLAYTON SERVICES CORPORATION 3003 HARVARD DRIVE NORTH WALES, PA 19454

Account No: B00111, CLAYTON SERVICES CORPORATION Project No: B00111, CLAYTON SERVICES CORPORATION

Inv. No: 119077

Sample Number Sample Description L238722-2

Samp. Date/Time/Temp

SP-COMP-2 SOIL 07/03/97 11:00am NA°F

Sampled by Customer Sampled

D	Method	Result	PQL	Test Date	
1,2-DICHLOROETHANE	EPA Method 8260	ND ug/kg DRY	2.62 ug/kg	07/09/97	
TRICHLOROETHENE.	EPA Method 8260	ND ug/kg DRY	1.31 ug/kg	07/09/97	
1.2-DICHLOROPROPANE	EPA Method 8260	ND ug/kg DRY	1.31 ug/kg	07/09/97	
•	EPA Method 8260	ND ug/kg DRY	1.31 ug/kg	07/09/97	
BROMODICHLOROMETHANE 2-CHLOROETHYL VINYL ETHER	EPA Method 8260	ND ug/kg DRY	13.1 ug/kg	07/09/97	
	EPA Nethod 8260	ND ug/kg DRY	6.56 ug/kg	07/09/97	
CIS-1,3-DICHLOROPROPENE	EPA Nethod 8260	ND ug/kg DRY	13.1 ug/kg	07/09/97	
4-METHYL+2-PENTANONE	EPA Method 8260	ND ug/kg DRY	6.56 ug/kg	07/09/97	
TOLUENE	EPA Method 8260	ND ug/kg DRY	6.56 ug/kg	07/09/97	
TRANS-1,3-DICHLOROPROPENE	EPA Method 8260	ND ug/kg DRY .	2.62 ug/kg	07/09/97	
1,1,2-TRICHLOROETHANE	EPA Method 8260	ND ug/kg DRY	1.31 ug/kg	07/09/97	
TETRACHLOROETHENE	EPA Method 8260		13.1 ug/kg	07/09/97	
2-HEXANONE	EPA Method 8260	ND ug/kg DRY	1.31 ug/kg	07/09/97	
DIBROMOCHLOROMETHANE		ND ug/kg DRY	2.62 ug/kg		
CHLOROBENZENE	EPA Method 8260	ND ug/kg DRY		07/09/97	
ETHYL BENZENE	EPA Method 8260	ND ug/kg DRY	6.56 ug/kg	07/09/97	
M&P-XYLENES	EPA Method 8260	ND ug/kg DRY	2.62 ug/kg	07/09/97	
O-XYLENE	EPA Method 8260	ND ug/kg DRY	1.31 ug/kg	07/09/97	
STYRENE	EPA Method 8260	ND ug/kg DRY	6.56 ug/kg	07/09/97	
BROMOFORM	EPA Method 8260	ND ug/kg DRY	1.31 ug/kg	07/09/97	
1,1,2,2-TETRACHLOROETHANE	EPA Method 8260	ND ug/kg DRY	1.31 ug/kg	07/09/97	
1,3-DICHLOROBENZENE	EPA Method 8260	ND ug/kg DRY	6.56 ug/kg	07/09/97	
1,4-DICHLOROBENZENE	EPA Method 8260	ND ug/kg DRY	6.56 ug/kg	07/09/97	
1,2-DICHLOROBENZENE	EPA Method 8260	ND ug/kg DRY	6.56 ug/kg	07/09/97	
UNKNOWN ALKANE-1	EPA 8260 Library Search	109. J ug/kg DRY		07/09/97	
HEPTANE 1	EPA 8260 Library Search	184. NJ ug/kg DRY		07/09/97	
UNKNOWN ALKANE-2	EPA 8260 Library Search	116. J ug/kg DRY		07/09/97	
PENTANE, 2,3,4-TRIMETHYL-	EPA 8260 Library Search	224. NJ ug/kg DRY		07/09/97	
UNKNOWN ALKANE-3	EPA 8260 Library Search	231. J ug/kg DRY		07/09/97	
HEPTANE, 2-METHYL-	EPA 8260 Library Search	151. NJ ug/kg DRY		07/09/97	
HEPTANE, 3-METHYL-	EPA 8260 Library Search	216. NJ ug/kg DRY		07/09/97	
TRIMETHYLHEXANE ISOMER	EPA 8260 Library Search	135. J ug/kg DRY		07/09/97	
UNKNOWN ALKANE-4	EPA B260 Library Search	. 159. J ug/kg DRY		07/09/97	
UNKNOWN ALKANE-5	EPA 8260 Library Search	127. J ug/kg DRY		07/09/97	
TRIMETHYLBENZENE ISOMER-1	EPA 8260 Library Search	134. J ug/kg DRY		07/09/97	
ETHYLMETHYLBENZENE ISOMER	EPA 8260 Library Search	100. J ug/kg DRY		07/09/97	

A result of "ND" indicates the concentration of the analyte tested was either not detected or below the PQL. QC Inc's laboratory certification numbers are: PADER 09-131; NJDEP 77166, NC 488, NY,CT,DE,and MD upon request. Definitions: ND=not detected; NEG=negative; POS=positive; COL=colonies; PQL=practical quanitation level; L/A=laboratory accident; TNTC=too numerous to count.

A result marked with "DRY" indicates that the result was calculated and reported on a dry weight basis.

- 4 -

Allen D. Schopbach, President

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VINELAND, NJ (609) 563-0101

WILDWOOD, NJ (609) 522-9000

PITMAN, NJ (609) 582-1919 1/14/2015 3.1215076 P96



07/28/97 02:54pm

MICHAEL WILLIAMS CLAYTON SERVICES CORPORATION 3003 HARVARD DRIVE NORTH WALES, PA 19454

Regarding:

MICHAEL WILLIAMS CLAYTON SERVICES CORPORATION 3003 HARVARD DRIVE NORTH WALES, PA 19454

Account No: B00111, CLAYTON SERVICES CORPORATION Project No: BOO111, CLAYTON SERVICES CORPORATION

P.O. No: PWSID No: Inv. No: 119077

Sample Number Sample Description

L238722-2 SP-COMP-2 SOIL D7/03/97 11:00am NA°F

Samp. Date/Time/Temp

Customer Sampled Sampled by

Parameter	Method	Result	PQL	Test Date	
TRIMETHYLBENZENE ISOMER-2	EPA B260 Library Search	99.8 J ug/kg DRY		07/09/97	
ETHYLDIMETHYLBENZENE ISOMER-1	EPA B260 Library Search	103. J ug/kg DRY		07/09/97	•
ETHYLDIMETHYLBENZENE ISOMER-2	EPA 8260 Library Search	112. J ug/kg DRY		07/09/97	
TCLP EXTRACTION	SW846 Method 1311	COMPLETED		07/08/97	
PAINT FILTER TEST	SW846 Method 9095	NEG		07/08/97	•
CYANIDE REACTIVE	SV846 Method 7.3.3.2	ND mg/kg	5.00 mg/kg	07/09/97	
REACTIVE HYDROGEN SULFIDE	SW846 Method 7.3.4.2	ND mg/kg	5.00 mg/kg	07/09/97	
FLASH POINT/IGNITABILITY	ASTM D 4982-89	>141 Deg. F		07/09/97	
MOISTURE PERCENT	STD Methods 18th Ed. 2540	23.74 %	0.01000 %	07/08/97	
TOTAL SOLIDS PERCENT	STD Methods 18th Ed. 2540	76.26 %	0.01000 %	07/08/97	

A result of "ND" indicates the concentration of the analyte tested was either not detected or below the PQL. OC Inc's laboratory certification numbers are: PADER 09-131; NJDEP 77166, NC 488, NY,CT,DE,and MD upon request. Definitions: ND=not detected; NEG=negative; POS=positive; COL=colonies; POL=practical quanitation level; L/A=laboratory accident; TNTC=too numerous to count. A result marked with "DRY" indicates that the result was calculated and reported on a dry weight basis.

- 5 -

Allen D. Schonbach, President

Complicing sice

Contract:		VBLK01
	Lab Sample ID:	SOIL BLK 7/08
	Lab File ID:	L4581.DQQQQG
	Date Received:	

Date Analyzed: 7/8/97

Dilution Factor: 1.0

SAMPLE NO.

 Soil Extract Volume:
 (uL)
 Soil Aliquot Volume:
 (uL)

 Concentration Units:
 ,
 Concentration Units:
 ,

 CAS No.
 Compound
 PQL
 (ug/L or ug/Kg) ug/Kg
 Q

ID: 0.18 (mm)

		С	٠	
CAS No.	Compound	PQL	(ug/L or ug/Kg) <u>ug/Kg</u>	a
74-87-3	Chloromethane	10.0		υ
75-01-4	Vinyl Chloride	5.00	•	U
74-83-9	Bromomethane	10.0		U
75-00-3	Chloroethane	10.0		U
107-13-1	Acrylonitrile	5.00		U
107-02-8	Acrolein	10.0		υ
75-15-0	Carbon Disulfide	10.0		U
75-35-4	1,1-Dichloroethene	2.00		U
67-64-1	Acetone	5.00		U
75-09-2	Methylene Chloride	2.00		U
156-60-5	trans-1,2-Dichloroethene	2.00		U
540-59-0	cis-1,2-Dichloroethene	2.00		U
75-34-4	1,1-Dichloroethane	5.00		U
108-05-4	Vinyl Acetate	10.0		υ
78-93-3	2-Butanone	10.0		U
67-66-3	Chloroform	1.00		U
75-55-6	1,1,1-Trichloroethane	1.00		U
56-23-5	Carbon Tetrachloride	2.00		บ
71-43-2	Benzene	1.00		U
107-06-2	1,2-Dichloroethane	2.00		υ
79-01-6	Trichloroethene	1.00		U .
78-87-5	1,2-Dichloropropane	1.00		U
75-27-4	Bromodichloromethane	1.00		U
110-75-8	2-Chloroethyl Vinyl Ether	10.0		U
10061-01-5	cis-1,3-Dichloropropene	5.00		U
108-88-3	Toluene	5.00		U
108-10-1	4-Methyl-2-Pentanone	10.0		U
10061-02-6	trans-1,3-Dichloropropene	5.00		υ
79-00-5	1,1,2-Trichloroethane	2.00		υ
127-18-4	Tetrachloroethene	1.00		U

Page 1 of 2

Lab Name: QC INC.

Matrix: (soil/water)

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-624

Sample wt/vol:

SOIL

LOW

0

5.00 (g/mL) ML

58	INIPLE	NO.
	VBL	V O 1
	ADT	VO!

Lab Name:	QC INC.			_	Contract:			
Matrix: (so	il/water)	SOIL			Lab	Sample ID:	SOIL BLK	7 <i>1</i> 08
Sample wt/	vol:	5.00(g/mL)	ML	_	1	Lab File ID:	L4581.D	<u>0</u> 00007
Level: (lo	ow/med)	LOW			Date	Received:		_
% Moisture	: not dec.	0			Date	Analyzed:	7/8/97	
GC Column	: RTX-624		: 0.18	_(mm)	Dilut	tion Factor:	1.0	
Soil Extract	: Volume:	(uL)			Soil Aliqu	ot Volume:		(uL)
					Concentration Units:		ر	
С	AS No.	Compound		PQL	(ug/L or ug/Kg)	ug/Kg	a	
5	91-78-6	2-Hexanone		10.0			U	
1	24-48-1	Dibromochloromet	hane	1.00			U	
1	08-90-7	Chlorobenzene		2.00			υ	
[1	00-41-4	Ethylbenzene		5.00			υ	_
1	08-38-3	m&p Xylenes		2.00			<u>ل</u>	
9	5-47-6	o-Xylene		1.00			U	
1	00-42-5	Styrene		5.00			υ	_
7	5-25-2	Bromoform		1.00			U	
	9-34-5	1,1,2,2-Tetrachlor	oethane	1.00	<u> </u>		U	
5	41-73-1	1,3-Dichlorobenze	ne	5.00			υ	
1	06-46-7	1,4-Dichlorobenze	ne	5.00			U	
19	5-50-1	1,2-Dichlorobenze	ne	5.00			U	_
-				 				
-	·			-			1	
					<u> </u>			
-	-			 				
-				 	<u> </u>			

- U Indicates Compound is not Detected
- B Indicates Compound is Present in the Blank
- J Indicates Compound is Detected Below the PQL
- E Indicates that the Result is Estimated because it is Above Calibration Range
- D Indicates the Result is from Dilution

Page 2 of 2

FORM I VOA

Quantitation Report

800000

Data File : C:\HPCHEM\1\DATA\INSTL\L4581.D : Data Taken: 7/08/97 @ 14:25

: SOIL BLK 7/08

Misc : 5ML SOIL

Sample

Quant Time: Jul 8 15:03 1997

Vial: 0 Operator: DATTU

Inst

Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\L8702P.M Title : Method 8260 VOA Calibration Last Update : Wed Jul 02 19:25:06 1997 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units Dev(Min)
 Pentafluorobenzene 1,4-Difluorobenzene Chlorobenzene-d5 1,4-Dichlorobenzene-d4 	9.30 10.44 15.19 19.31	168 114 82 152	168953 285049 145807 64718	50.00 ug/L 0.00 50.00 ug/L 0.00 50.00 ug/L -0.01 50.00 ug/L 0.00
System Monitoring Compounds 29) Dibromofluoromethane 43) Toluene-d8 61) Bromofluorobenzene	9.21 12.74 17.25	111 98 95	90810 257598 81814	%Recovery 45.86 ug/L 91.72% 50.26 ug/L 100.51% 46.43 ug/L 92.87%

Target Compounds

Qvalue

^{(#) =} qualifier out of range (m) = manual integration L4581.D L8702P.M Tue Jul 08 15:03:57 1997 DFI4

Quantitation Report

000009

Data File : C:\HPCHEM\1\DATA\INSTL\L4581.D : Data Taken: 7/08/97 @ 14:25

Vial: 0 Operator: DATTU

: SOIL BLK 7/08 Sample

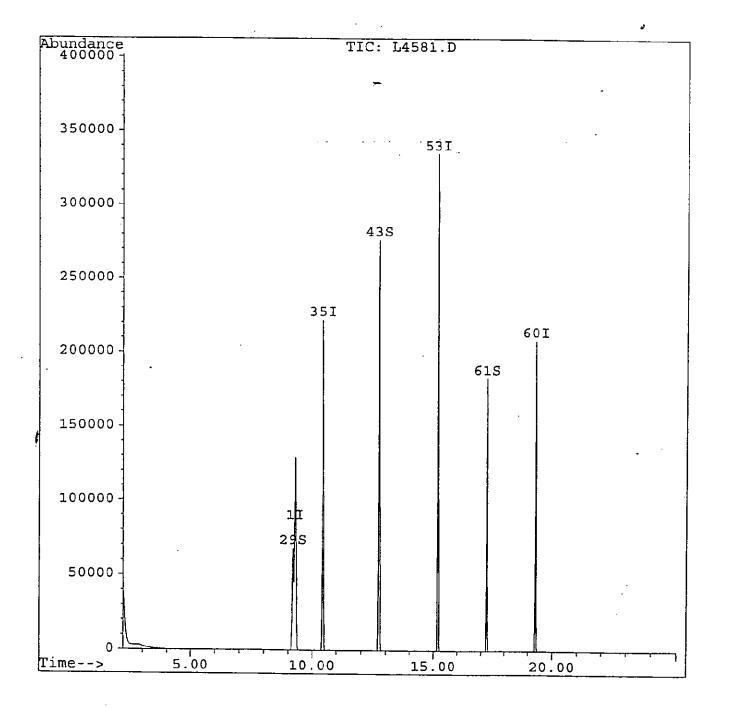
Inst

Misc : 5ML SOIL

Multiplr: 1.00

Quant Time: Jul 8 15:03 1997

Method : C:\HPCHEM\1\METHODS\L8702P.M Title : Method 8260 VOA Calibration Last Update : Wed Jul 02 19:25:06 1997 Response via : Multiple Level Calibration



1E VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE	NO.
VB	LK01

Lab Name: QC INC	<u>. </u>		Contract:	_		000	0.00
Matrix: (soil/water)	SOIL	_		Lal	Sample ID:	SOIL BLK 7	/08
Sample wt/vol:	5.0	(g/mL) <u>ML</u>			Lab File ID:	<u>L</u> 4581.D	
Level: (low/med)	LOW	_		Da	te Received:		•
% Moisture: not de	ec. <u>0</u>	_		Da	te Analyzed:	7/8/97	_
GC Column:	RTX-624	ID: 0.18	(mm)	Dilu	ution Factor:	1.0	_
Soil Extract Volume:		_ (uL)		Soil Aliq	uot Volume:		. (uL)
Number TICs found:	0	_	Concentration Unital (ug/L or ug/Kg)	s:	ug/Kg		
	CAS Number	Compound	Name	RT	Conc.	Q]
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1. NONE FOUND 2. 3. 3. 3. 4. 5. 5. 6. 7. 8. 9. 9. 10. 11. 12. 13. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 9.			tagic or agricar				
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FORM I VOA-TIC

SAMPLE NO. VOLATILE ORGANICS ANALYSIS DATA SHEET VBLK02 Contract:

Lab Name: QC INC.		Contract:
Matrix: (soil/water)	SOIL	Lab Sample ID: SOIL BLK 7/09
Sample wt/vol:	5.00 (g/mL) ML	Lab File ID: $4603.0 00011$
Level: (low/med)	Low	Date Received:
% Moisture: not dec.	0	Date Analyzed: 7/9/97
GC Column: RTX-624	ID: <u>0.18</u> (mm)	Dilution Factor: 1.0

Soil Aliquot Volume: ____ (uL) Soil Extract Volume: (uL) Concentration Units: CAS No. PQL (ug/L or ug/Kg) ug/Kg Q Compound 74-87-3 10.0 U Chloromethane 75-01-4 Vinyl Chloride 5.00 U U 10.0 74-83-9 Bromomethane U 75-00-3 Chloroethane 10.0 Acrylonitrile 5.00 U 107-13-1 10.0 U 107-02-8 Acrolein 75-15-0 Carbon Disulfide 10.0 U U 75-35-4 1,1-Dichloroethene 2.00 U 5.00 67-64-1 Acetone Methylene Chloride 2.00 U 75-09-2 156-60-5 trans-1,2-Dichloroethene 2.00 U 2.00 U 540-59-0 cis-1,2-Dichloroethene U 75-34-4 1,1-Dichloroethane 5.00 U 108-05-4 Vinyl Acetate 10.0 78-93-3 2-Butanone 10.0 U U 67-66-3 Chloroform 1.00 1.00 75-55-6 1,1,1-Trichloroethane 56-23-5 Carbon Tetrachloride 2.00 U υ 71-43-2 Benzene 1.00 U 107-06-2 1,2-Dichloroethane 2.00 U 1.00 79-01-6 Trichloroethene U 78-87-5 1,2-Dichloropropane 1.00 75-27-4 Bromodichloromethane 1.00 U U 110-75-8 2-Chloroethyl Vinyl Ether 10.0 U 10061-01-5 cis-1,3-Dichloropropene 5.00 U 5.00 108-88-3 Toluene U 108-10-1 4-Methyl-2-Pentanone 10.0 10061-02-6 trans-1,3-Dichloropropene 5.00 U 79-00-5 2.00 U 1,1,2-Trichloroethane

Page 1 of 2

127-18-4

Tetrachloroethene

1.00

U

	1A	SAMPLE NO.	
	VOLATILE ORGANICS A	ANALYSIS DATA SHEET	VBLK02
Lab Name: QC INC.		Contract:	
Matrix: (soil/water)	SOIL	Lab Sample ID	: SOIL BŁK 7/09
Sample wt/vol:	5.00 (g/mL) ML	Lab File ID	: L4603.D 00012
Level: (low/med)	Low	Date Received	: <u></u>
% Moisture: not dec.	<u> </u>	Date Analyzed	:7/9/97
GC Column: RTX-624	iD: 0.18 (mm)	Dilution Factor	:1.0

		C			
CAS No.	Compound	PQL	(ug/L or ug/Kg) <u>ug/Kg</u>		
591-78-6	2-Hexanone	10.0		U	
124-48-1	Dibromochloromethane	1.00		U	
108-90-7	Chiorobenzene	2.00		υ	
100-41-4	Ethylbenzene	5.00		U	
108-38-3	m&p Xylenes	2.00		U	
95-47-6	o-Xylene	1.00		υ	
100-42-5	Styrene	5.00		U	
75-25-2	Bromoform	1.00		υ	
79-34-5	1,1,2,2-Tetrachloroethane	1.00		υ	
541-73-1	1,3-Dichlorobenzene	5.00		ប	
106-46-7	1,4-Dichlorobenzene	5.00		U	
95-50-1	1,2-Dichlorobenzene	5.00		U	
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- U Indicates Compound is not Detected
- **B** Indicates Compound is Present in the Blank
- J Indicates Compound is Detected Below the PQL

__ (uL)

- E Indicates that the Result is Estimated because it is Above Calibration Range
- D Indicates the Result is from Dilution

Page 2 of 2

Soil Extract Volume:

FORM I VOA

Soil Aliquot Volume: (uL)

Quantitation Report

000013

Data File : C:\HPCHEM\1\DATA\INSTL\L4603.D Acq On : Data Taken: 7/09/97 @ 13:38

Vial: 0 Operator: DATTU

Sample : SOIL BLK 7/09

Inst

Misc : 5ML SOIL

Multiplr: 1.00

Quant Time: Jul 9 15:14 1997

Method : C:\HPCHEM\1\METHODS\L8702P.M
Title : Method 8260 VOA Calibration
Last Update : Wed Jul 02 19:25:06 1997
Response via : Multiple Level Calibration

Internal Standards	R.T. QIo	n Response	Conc Units Dev(Min)
 Pentafluorobenzene 1,4-Difluorobenzene Chlorobenzene-d5 1,4-Dichlorobenzene-d4 	9.32 16 10.45 11 15.19 8 19.31 15	4 266823 2 134605	50.00 ug/L 0.01 50.00 ug/L 0.00 50.00 ug/L 0.00 50.00 úg/L ~0.01
System Monitoring Compounds 29) Dibromofluoromethane 43) Toluene-d8 61) Bromofluorobenzene	9.22 11 12.74 9 17.26 9	8 235964	%Recovery 47.75 ug/L 95.49% 49.18 ug/L 98.36% 45.57 ug/L 91.13%

Target Compounds

Qvalue

^{(#) =} qualifier out of range (m) = manual integration L4603.D L8702P.M Wed Jul 09 15:15:07 1997 DFI4

Quantitation Report

Data File : C:\HPCHEM\1\DATA\INSTL\L4603.D

Acq On : Data Taken: 7/09/97 @ 13:38

Sample : SOIL BLK 7/09

Misc : 5ML SOIL

Quant Time: Jul 9 15:14 1997

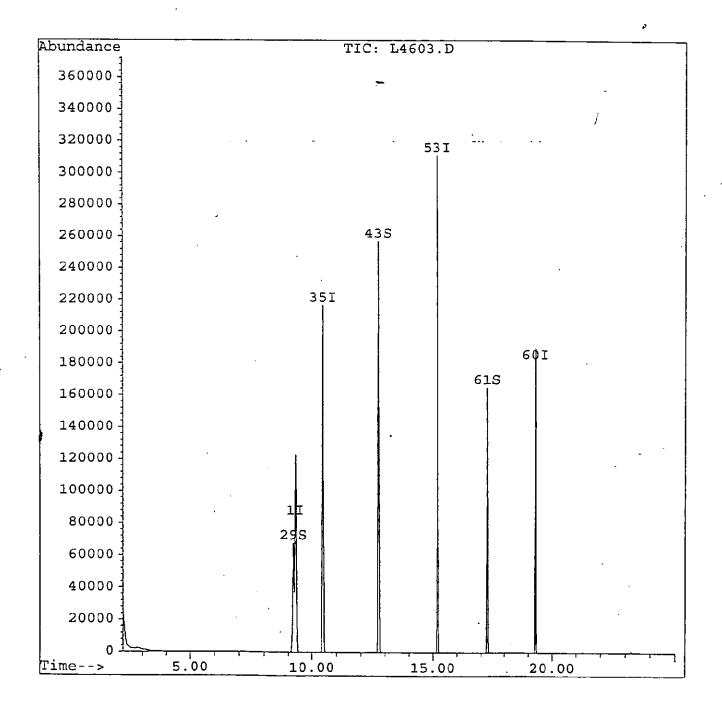
s: Our 9 15:14 199/ ·

Method : C:\HPCHEM\1\METHODS\L8702P.M

Title : Method 8260 VOA Calibration

Last Update : Wed Jul 02 19:25:06 1997

Response via : Multiple Level Calibration



vial: 0000014

Operator: DATTU

Multiplr: 1.00

Inst

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.	

		16	NIATIVEL	A IDENTIFIED	COMPOUND	73		₩ •	LNUZ
Lab Name: <u>QC INC.</u>			<u>. </u>		Contract:		·	00	0015
Matrix: (soil/water)	sc	DIL				Lal	b Sample ID:	SOIL BLK 7	7/09
Sample wt/vol:	5	.0 (g/n	nL) <u>M</u> L	·			Lab File ID:	L4603.D	
Level: (low/med)	LC	DW DW				Da	te Received:		_
% Moisture: not d	ec	0				Da	te Analyzed:	7/9/97	_
GC Column:	RTX-624		ID:	0.18 (mm)		Dile	ution Factor:	1.0	_
Soil Extract Volume		(uL)				Soil Aliq	uot Volume:	٠	(uL)
Number TICs found	i:	0			entration Unit /L or ug/Kg)	ts:	ug/Kg		
	CAS Number	r T	Со	mpound Nam	e	RT	Conc.	Q	1
	1.		NE FOUND						j
	2.		-			·-]
	3.								
	4.			· 			<u> </u>		1
	<u>5.</u> 6.						-		1
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FORM I VOA-TIC

28. 29. 30.

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

000016

Lab Name:	QC INC.	Contract:
Cab Hairio.	40 11.0.	

Level: (low/med)

LOW

ſ		LAB	SMC1	SMC2	SMC3	OTHER	тот
	SAMPLE NO.	\$AMPLE ID.	DFM #	TOL #	BFB #	#	OUT
01	VBLK01	SOIL BLK 7/08	92	101	93		
02	S-2MS	L236625-2MS	91	99	91		
03	S-2MSD	L236625-2MSD	93	100	91		!
04	VBLK02	SOIL BLK 7/09	96	98	91	<u> </u>	
05	SP-COMP-1 SOIL	L238722-1	94	99	93		
06	SP-COMP-2 SOIL	L238722-2	108	92	102		
07							
80							ļ
09				<u> </u>	_		ļ
10							
11						<u> </u>	<u> </u>
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25			I				
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27						1	1
28					1		
29							
30							

SMC1 DFM = Dibromofluoromethane SMC2 TOL = Toluene-d8

SMC3 BFB = Bromofluorobenzene

Column to be used to flag recovery values

- Values outside of contract required QC limits
- D System Monitoring Compound diluted out

Page 1 of 1

FORM II VOA-2

QC LIMITS

(80-146)

(81-119) (76-122)

Lab Name:	QC INC.	Contract:

Matrix Spike - Sample No.: S-2 Level: (low/med) LOW

	SPIKE	SAMPLE	MS	MS	-	QC.
	ADDED	CONCENTRATION	CONCENTRATION	%	ر	LIMITS
COMPOUND	(ug/Kg)	(ug/Kg)	(ug/Kg)	REC	#	REC.
1,1-Dichloroethene	56	0	54	96		(59-172)
Benzene	56	_ 0	50	89		(59-131)
Trichloroethene	56	0	61	108		(65-131)
Toluene	56	0	59	105		(59-139)
Chlorobenzene	56	0	66	117		(60-133)

	SPIKE ADDED	MSD CONCENTRATION	MSD %	%	QC I	IMITS
COMPOUND	(ug/Kg)	(ug/Kg)	REC #	RPD #	RPD	REC.
1,1-Dichloroethene	56	54	96	1	2 2	(59-172)
Benzene	56	48	85	4	20	(59-131)
Trichloroethene	56	57	102	6	18	(65-131)
Toluene	56	55	98	7	21	(59-139)
Chlorobenzene	56	62	110	6	21	(60-133)

- # Column to be used to flag recovery and RPD values with an asterisk
- * Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

Comments:			
•		 	

FORM III VOA-2

PCB ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

Lab Name: OC Inc. Contr	CLAYTON METHOD BLANK act: SERVICES
Lab Code:	SAS No.: SDG No.:
Matrix: (soil/water) SOIL	Lab Sample ID: <u>METHOD BLANK</u>
Sample wt/vol: 30.00g (g/ml) 10ml	Lab File ID : F25P013
Level: (low/med) LOW	Date Received:
% Moisture: not dec dec	Date Extracted:06/24/97
Extraction: (SepF/Cont/Sonc) _SON	
1.50% SP2250/ GC Column ID: 1.95% SP2401	Dilution Factor:1.0
GC Column ID (2):	Lab file ID (2):
(CONCENTRATION UNITS: (ug/L or mg/kg) mg/kg
CAS NO. COMPOUND	PQL RESULTS Q
12674-11-2Aroclor-1016 11104-28-2Aroclor-1221 11141-16-5Aroclor-1232 53469-22-9Aroclor-1242 12672-29-6Aroclor-1248 11097-69-1Aroclor-1254 11096-82-5Aroclor-1260	0.030 0.030 U 0.030 0.030 U 0.030 0.030 U 0.030 0.030 U 0.030 0.030 U 0.030 0.030 U 0.030 0.030 U 0.030 0.030 U

L238722

1D PCB ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

Lab Name: OC Inc. Contr	CLAYTON METHOD BLANK cact: SERVICES
Lab Code:	
Matrix: (soil/water) <u>SOIL</u>	Lab Sample ID: <u>METHOD BLANK</u>
Sample wt/vol: 30.00g (g/ml) 10ml	Lab File ID : G16P008
Level: (low/med) LOW	Date Received:
% Moisture: not dec dec	Date Extracted: 07/11/97
Extraction: (SepF/Cont/Sonc)SO	NC Date Analyzed: 07/16/97
1.50% SP2250/ GC Column ID: 1.95% SP2401	Dilution Factor: 1.0
GC Column ID (2):	
	CONCENTRATION UNITS: (ug/L or mg/kg) mg/kg
CAS NO. COMPOUND	PQL RESULTS Q
12674-11-2Aroclor-1016 11104-28-2Aroclor-1221 11141-16-5Aroclor-1232 53469-22-9Aroclor-1242 12672-29-6Aroclor-1248 11097-69-1Aroclor-1254 11096-82-5Aroclor-1260	0.030 0.030 U 0.030 0.030 U 0.030 0.030 U 0.030 0.030 U 0.030 0.030 U 0.030 0.030 U 0.030 0.030 U 0.030 0.030 U

2E SOIL SURROGATE RECOVERY Primary

Lab	Name:_	QC Ir	ıc.	Contr	act: <u>CLAY</u>	ON SERVICE	s
Lab	Code:	77166	_ Case No:_	SA	S No:	SDG No:	
		01 MET 02 PCF 03 PCF 04 MET 05 L2 06 L2 07 08 09	AMPLE NO. THOD BLANK B SPIKE B SPK DUP THOD BLANK B8722-1 B8722-2	S1 (DBC) # 89 101 98 90 100 109	OTHER		

ADVISORY QC LIMITS (30-145)

- S1 (DBC) = Dibutylchlorendate (100ul/40ppm)
- # Column used to flag recovery values with an asterisk
- * Values outside of QC limits
- D Cannot calculate due to dilution

FORM II PEST-2

1/87

Lab Name :	QC Inc.			Contract :	CLAYTON	SERVICES	
Lab Code:	77166	_Case No:	<u>,,</u>	SAS No.:		SDG N	o.:
Matrix Spike - Sam	ole Ņo.:	L234576-1	l	Level (low.	/med) :	Low	
		···					•
COMPOUND	AMOUNT ADDED (mg/kg)	IN EX	PLE CONC. (TRACT g/kg)		ONC. RACT /kg)	MS % REC #	QC LIMITS %
Arochlor 1260	1.67		0.000	1.4	2	85.	57-168
COMPOUND Arochlor 1260	IN EX	CONC. (RACT mg/kg)	MSD % REC # 92.	MS % REC #	RPD%	RPD 50	QC LIMITS % REC.
# Column to be used * Values outside QC	to flag recovery			asterisk			
RPD :	0	out of	1	outside limit			

FORM III PEST-2

Comments:__

DIESEL RANGE ORGANICS ANALYS	IS DATA SHEET SAMPLE NO.
Lab Name: OC Inc. Contra	CLAYTON METHOD BLANK
Lab Code: 77166 Case No.: Matrix: (soil/water) SOIL	SAS No.: SDG No.: Lab Sample ID:METHOD_BLANK
Sample wt/vol: 30.00g (g/ml) 4ml	_ Lab File ID : G10H012
Level: (low/med) Low	Date Received:
% Moisture: not dec dec	Date Extracted: 07/10/97
·	Date Analyzed: 07/11/97
GC Column ID: RTX-5	Dilution Factor:1.0
	ONCENTRATION UNITS: (ug/L or ng/kg) <u>mg/kg</u>
CAS NO. COMPOUND	PQL RESULTS Q
Diesel Range Organics	5.00 5.00 U

2E SOIL SURROGATE RECOVERY Primary

Lab	Name	:	OC I	nc.	Co:	ntract:_	CLA:	YTON	SERVICES
				_ Case No:_					
			\s	SAMPLE NO.	S1 (OTP)#		S2 (DBC)#		*
		0.0	2 <u>DF</u>	THOD BLANK O SPIKE O SPK DUP	129 *234 *226		110 116	- -	
		. 0	4 <u>L</u> 2 5 <u>L</u> 2	238722-1 238722-2	105 *160		98		
		0	8					_	
	*					· -			
		1 1	4 5						
		· 1	7 8 9						·
		2 2	0 —					<u>-</u>	
		2 2 2	5						
•		2	27 — 28 — 29 —					_	
	S1		1	-Terphenyl (1m1/20ppr	n)		QC	VISORY LIMITS 50-150)
	\$2 	(DBC)	= .D	ibutylchlore	ndate (1	n1/40ppm ·			0-150)

- # Column used to flag recovery values with an asterisk
- * Values outside of QC limits
- D Cannot calculate due to dilution
- M Matrix interference

1/94

DIESEL RANGE ORGANICS ANALYSIS	DATA SHEET	SAMPLE NO.
Lab Name: OC Inc. Contract	CLAYTON : SERVICES	METHOD BLANK
Lab Code: 77166 Case No.:	SAS No.:	SDG No.:
Matrix: (soil/water) <u>SOIL</u>	Lab Sample ID:_	METHOD BLANK
Sample wt/vol: 30.00g (g/ml) 4ml	Lab File ID :	G10H012
Level: (low/med) <u>Low</u>	Date Received:_	
% Moisture: not dec dec	Date Extracted:	07/10/97
	Date Analyzed:_	07/11/97

1D

CONCENTRATION UNITS: (ug/L or

____ Dilution Factor:_____1.0

mg/kg) mg/kg

CAS NO. COMPOUND PQL RESULTS Q

Diesel Range Organics 5.00 5.00 U

GC Column ID: RTX-5

2E SOIL SURROGATE RECOVERY Primary

Lab	Name:_	. OC	Inc.	_ Contract:	CLAYTON SERVICES
Lab	Code:	77166	Case No:	SAS No:	SDG No:

1		C1	S2
	SAMPLE NO.	S1 (OTP)#	(DBC)#
01	METHOD BLANK	129	
02	DRO SPIKE	*234	110
03	DRO SPK DUP	*226	116
04	L238722-1	105	
05	L238722-2	*160	98
06		ļ	
07			
80			<u> </u>
09			
10			
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28			
29		 	
30	l	<u> </u>	

- # Column used to flag recovery values with an asterisk
- * Values outside of QC limits
- D Cannot calculate due to dilution
- M Matrix interference

1/94

3E SOIL DRO MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: <u>QC In</u>	с.		_ Cont	rac	:t:	CLAYT	ON SERVI	CES
Lab Code:77166_	Case	No.:_		SAS	No.	:	SDG No.	·
Matrix Spike-Sample No.: <u>LAB SAND</u> Level:(low/med) <u>Low</u> ,								<u>v</u>
COMPOUND	AMOUNT ADDED (mg/kg)	IN	EXTRACT	١ .	IN	CONC EXTRACT mg/kg)	MS% REC #	QC LIMITS
Diesel Range Organics	AMOUNT SAMPLE CONC. MS ADDED IN EXTRACT IN (mg/kg) (mg/kg)			127. 130 50				
			Man.	3.6	G 0.	96	QC LI	MITS
COMPOUND							RPD	REC.
Diesel Range Organics	130		133		130	2.3	20	50-150
# Column to be use * Values outside QO RPD: 00 out of Spike Recovery: 0	C limits	tside	limits				ı an aste	risk
COMMENTS:								
1			····					

			1D		
GASOLINE	RANGE	ORGANICS	ANALYSIS	DATA	SHEET

SAMPLE NO.

				-	
				LAYTON	METHOD BLANK
Lab Name: <u>OC I</u>	nc.	Contract:	:Sì	ERVICES	.
Lab Code:77	166 Case No.	. :	SAS 1	No.:	SDG No.:
Matrix: (soil/w	ater) <u>SOIL</u>		Lab	Sample ID:_	METHOD BLANK
Sample wt/vol:	10.00g (g/ml)	10ml	Lab :	File ID :	G10K013
Level: (low/m	(100ul/5ml) ned) <u>Low</u>	}	Date	Received:_	
GC Column ID: _	Rtx-502.2		Dilu	tion Factor	1.0
%Moisture: not	decdec		Date	Analyzed:	07/11/97
				TION UNITS:	ug/L or
CAS NO.	COMPOUND	P	QL	RESULTS	Q
Gasoline Rang	ge Organics		.00	5.00	U

2E SOIL SURROGATE RECOVERY Primary

Lab	Name:_	QC I	nc.	_ Contract:	CLAYTON SERVICES
Lab	Code:	77166	_ Case No:	SAS No:	SDG No:

	SAMPLE NO.	S1 (BFB)#	OTHER
01	METHOD BLANK	117	
02	GAS SAND MS	129	
03	GAS SAND MSD	140	
04	L238722-1	208 M	
05	L238722-2	240 M	
06			
07 08			
09			<u> </u>
10			
11			
12			
13 14 15			<u> </u>
14			
15			
16			
17 18			
19			
20			
21			
22 23 24 25			
23			<u> </u>
24		<u> </u>	
25		<u> </u>	
26			-
27 28		 	
29	l ————————————————————————————————————	+	
30			
	I ————————————————————————————————————		

ADVISORY QC LIMITS (50-150)

- S1 (BFB) = Bromofluorobenzene (50UL/500PPM)
 - Column used to flag recovery values with an asterisk
- * Values outside of QC limits
- M Matrix Interference

3E SOIL GRO MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: OC In	.c.		_ Cont	rac	:t:	CLAYTO	N SERVICE	ES
Lab Code:	Lab Code: SAS No.: SDG No.:							
Matrix Spike-Sample No.: <u>LAB SAND</u> Level:(low/med) <u>Low</u>								
AMOUNT SAMPLE CONC. MS CONC ADDED IN EXTRACT IN EXTRACT COMPOUND (mg/kg) (mg/kg) (mg/kg)						MS% REC #	QC LIMITS	
Gasoline Range Organics	25.00	0.	000	-	3	1.9	128	50-150
MSD CONC. QC LIMITS								
COMPOUND	IN EXTRA	ACT g)	MSD% REC #	M: R:		% RPD #	RPD	REC.
	32.8		131		128	2.3	20	50-150
# Column to be use to flag recovery and RPD values with an asterisk * Values outside QC limits RPD: 00 out of 01 outside limits Spike Recovery: 00 out of 02 outside limits COMMENTS:								

METALS ANALYTICAL RESULTS AND QUALITY ASSURANCE DATA

CLIENT: Clayton Services Corporation SAMPLE I L238722-1,2

Analyte		Unspike Sample		MSD Conc. Added	MS	MATRIX MSD	SPIKE RE	MSD		BLA RES	THOD NK SULTS
·	1D	Results	(mg/i)	(mg/l)	Result	Result	Recovery	Recovery	RPD	1	
Aluminum							Ĺ	<u> </u>			
Antimony	-										
Arsenic	L238722-1	ND	2.5	2.5	2.19	2.05	88	82	6.6	ND	
Barium	L238722-1	0.566	2.5	2.5	2.5	2.33	77	71	9.2	ND	*
Beryllium											i
Cadmium	L238722-1	ND	0.5	0.5	0.371	0.342	74	68	8.1	ND	*
Calcium			1					<u> </u>			
Chromium	L238722-1	ND	2.5	2.5	1.93	1.79	77	72	7.5	ND	*
Cobalt				Ī							
Соррег		1			Γ		<u> </u>				
Iron							l		j		
Lead	L238722-1	ND	2.5	2.5	1.89	1.73	76	69	8.8	ND	•
Magnesium							<u> </u>		1		
Manganese		Ī	<u> </u>		1		<u> </u>		<u> </u>		ļ
Mercury	L226822-1	ND	0.002	0.002	0.00225	0.00206	113	103	8.8	ND]
Molybdenum									ļ ·	<u> </u>]
Nickel]			1	<u> </u>]
Potassium		1	1	1		<u> </u>		<u> </u>	ļ	!]
Selenium	L238722-1	ND	2.5	2.5	2.05	1.9	82	76	7.6	ND]
Silver	L238722-1	ND	0.5	0.5	0.411	0.337	82	77	6.0	ND]
Sodium						T]
Thallium										<u> </u>]
Titanium		T				<u> </u>				<u> </u>]
Tin		1						1		<u> </u>	1
Vanadium	i		1							1	_
Zinc	 								1		1

^{*} MS and / or MSD recoveries were outside control limits, but the lab control sample recoveries met criteria.

QC LABORATORIES

GENERAL CHEMISTRY SAMPLE AND SPIKE DUPLICATE RESULTS

Test Report No.: L238722

Client Name : CLAYTON SERVICES CORPORATION

Parameter	Sample Number	Sample Matrix	Units	Sample Result	Dup Result	RPD %	RPD Limit
CYANIDE REACTIVE	L236792-8	Solid	mg/kg	<5	<5	0.0	20
FLASH POINT/IGNITABILITY	L238722-1	Solid	Deg. F	>141	>141	0.0	20
MOISTURE PERCENT	L230745-1	Solid	7.	98.27	98.26	0.01	20
PAINT FILTER TEST	L238722-1			Neg.	Neg.	0.0	20
REACTIVE HYDROGEN SULFIDE	L236792-8	Solid	mg/kg	<5	<5	0.0	20
TOTAL SOLIDS PERCENT	L230745-1	Solid	76	1.73	1.74	0.6	20

Duplicate RPD: 0 out of 6 outside limits

Form No. WC2

QC LABORATORIES

GENERAL CHEMISTRY BLANK RESULTS

Test Report No.: L238722

Client Name : CLAYTON SERVICES CORPORATION

Parameter	Sample Matrix	Units	Concentration Found	Practical Quantitation Limit
CYANIDE REACTIVE	Liquid	mg/l	ND	5
REACTIVE HYDROGEN SULFIDE	Liquid	mg/l	ND	5

QC LABORATORIES

GENERAL CHEMISTRY SPIKE SAMPLE RESULTS

Test Report No.: L238722

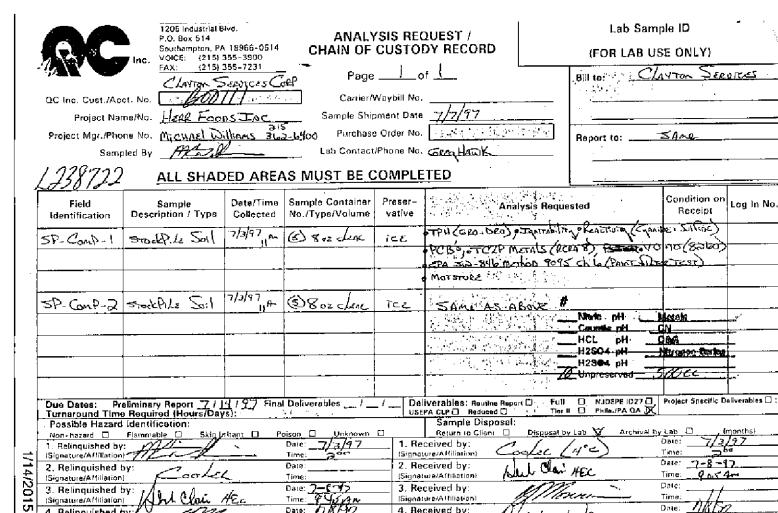
Client Name : CLAYTON SERVICES CORPORATION

Parameter	Sample Number	Sample Matrix	Units	Sample Result	Spike Conc.	Spiked Result	Spike Rec. %	QC Limits
CYANIDE REACTIVE	L236792-8	Solid	mg/kg	<5	12.5	12.5	100	41-112
REACTIVE HYDROGEN SULFIDE	L236792-8	Solid	mg/kg	<5	86.4	72	83	45-110

Spike Recovery: 0 out of 2 outside limits

The appearance of an LFB denotes that the MS was outside QC Limits

Form No. WC4



. 7 8/5-

7/9 7:40

The State of the Report Yellow (dag) Fink (Samule Custody State Cite of the Renew Henry Name

[Signature/Affiliation]

(Signature:Affiliation)

(Signature/Affiliation) 5. Received by:

For Soil

4. Received by:

Time:

Date:

Time

Date:

PLEASE TAX RESULTS

j362-6481

(Signature/Affiliation)

(Signature/Affiliation)

(Signature/Affiliation)

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4. Relinguished by:/

5. Relinquished by:

Comments / Special Instructions:

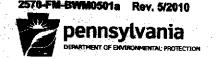
Time:

Date:

Time:

Date:

APPENDIX B UST System Inspection and Testing Documentation



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

STORAGE TANK DIVISION

FOR DEP	USE ONLY
Reviewer	
Date	
Entered by	
Date	
	-

UNDERGROUND STORAGE TANK FACILITY OPERATIONS INSPECTION

	10110 1117	/1 EQ [[Q]	•	<u> </u>			
FACILITY INFORMATION	CER	TIFIED INS	PECTOR				
ID Number 15 - 24418		ame Tin	_	ETH			
Name HERR FOODS INC.		ID No. 548					
Location 20 HERR PRIVE	 P	hone 61	842	2418			
Address NOTTINGHAM, PA 1936					WIERNET, NET		
Municipality NOTINGHAM TWP	Date	of First Site	yisit (mon	th/day/year)			
Representative Present During Inspection	_	6/6	/	 			
Name PAUE MORAY		NER (must b	-				
Phone 610 - 632 - 9330		ame E	OHE	RR			
☐ Owner ☐ Operator ☒ Employee ☐ N		RATOR (if d	ifferent than	owner)			
Sinancial Pagnaraibility diagrams de 19			HIVE-				
Financial Responsibility discussed with owner Provided by ISTIF Owner must have deductive	Yes 🔀			No [
 Provided by USTIF. Owner must have deductible Required of all UST owners except state agencies 	ies avallabie ies	as provided	in Subchapt	er H of the r	egulations.		
Suspected or confirmed contamination observed		(notify proper n	anda a salah ta da		7 1		
Improperly closed or unregistered tanks present		(provide comm					
Written instructions/notification procedures are ava	ilahle/noet	ed Yes 🔀	_ *	No [
Amended registration form required for (check all the	at anniv)	eu ies <u>p</u> a		No [
☐ Added tanks ☐ CI		stance store	ıd				
☐ Closed tanks	hange of ope	erational stat	us (in or out	of service)			
☐ Claride in rank size ☐ Cl	hange of ow	ner	•	,			
Inspection summary.				•			
Indicate the compliance status of each item below u	sing the follo	wing codes:	N = Nonc	ompliant	C = Compliant		
	Tank No.	Tank No.	Tank No.	Tank No.	Tank No.		
Tank Construction and Corrosion Protection	C	7					
Piping Construction and Corrosion Protection	C	-					
Spill Prevention	<u> </u>	~					
Overfill Prevention	C	-					
Registration Certificate Display	-	C					
Tank Release Detection	Č	ح					
Piping Release Detection	<u> </u>	_					
Monthly sump checks	2	~					
I, the DEP Certified Inspector (ILIM), have inspected	the entire o			<u> </u>			
I, the DEP Certified Inspector (IUM), have inspected sumps, monitoring wells and dispensers. Based on method owner. I certify under penalty of law as provided	v nerennal n	DCOD/Otion A	t that families.	A			
me armore a corner and a bendity of law as Diovided	in ixea i	· × A Soction	in AONA (role	**i~~ +~ · · · · ·	المالية المستحدد		
authorities that the information provided by me is true	, accurate ar	nd complete	to the best o	f my knowle	doe and belief		
7			C	16/14	ago ana benen,		
Certified Inspector's Signature				Date	P		
As the representative of the owner or operator, I have	reviewed th	e completed	inspection r		- Pr I		
as provided in 10 r A C.S.A. Section 4904 (relating	i to unsworn	Taisification	to authorities	s), that the i	nformation provided		
by me is true, accurate and complete to the best of my	knowledge a	and belief.	•	2021			
Signature		Title	<i>;</i>	- }/**/*	2014		
Original; Regional Office - Norristown Wilkes Barre, Harrishum, Williamsport	Pittshurah or **				Date		
Copy: Owner Copy: DEP: Division of Storage Tanks, P.O. Box 8763, Hamisburg, PA 171		odd Alli Ó.					

UNDERGROUND STORAGE TANK FACILITY OPERATIONS INSPECTION

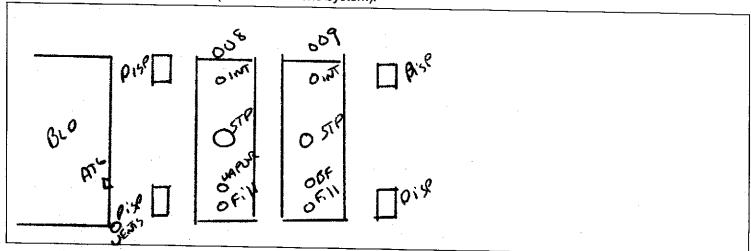
Facility Name HEBR FOODS Facility ID 15 _ 24418 Date

TANK SYSTEM INFORMATION. For each tank, fill in the required information and codes from the following list. Where multiple codes are allowed and used for a specific tank component, describe the arrangement in the COMMENTS section. (See FOI form instructions for details.)

		Tank No.	Tank No.	Tank No.	Tank No.	Tank No.	DEP Use
<u>1. </u>	Tank capacity (name plate gallons)	10000	10,000				
2.	Substance currently stored	6AS	DESEL				
3.	Installation date (mm/yyyy)	6/19/97	6/19/97				
4.	This drone tank is manifolded to tank number		<i>-</i>		· ·		
5.	Product level, in inches, at time of inspection	45	60				
6.	Total secondary containment on this tank system	 \	v				(18)
<u>7.</u>	Tank construction and corrosion protection	6	G		_		
8.	Main piping construction and corrosion protection	† K –	- ŭ				(1)
9a.	Number of tank top sumps #	 					(2)
9b.	Number of tank top sumps tested tight ±	-	6	_			(24)
9c.	Spill containment tested tight	~~	ž				(21)
10a.	Number of transition sumps	 6					(21)
10b.	Number of transition sumps tested tight	ŏ	-8 -				(0.4)
11a.	Number of connected dispensers	 	7				(21)
11b.	Number of connected dispensers with pans	「	7				
11c.	Number of dispenser pans tested tight	5	ঠ	-·			100
12a.	Piping flexible joints/connectors construction at tank	 	7				(22)
12b.	Piping flexible joints/connectors construction at dispenser						(PFLX)
13.	Pump (product dispensing) system	 	-				(PFLX)
14.	Spill protection	 				<u> </u>	(4)
15.	Overfill type]					(6)
16.	Current registration certificate display	 5 	-3-				(7)
17.	Stage I vapor recovery	 1 	7				(8)
18.	Stage II vapor recovery	<u> </u>	-				(19)
	Evaluate the tank system release detection method	⊥ <u>β</u>	-fa-a 500				(20)
19.	Tank release detection	S carefully D		in the follow	ving rows.		
20.	Piping small release detection (0.2 gph monthly or 0.1 gph	 	H				(12)
	annually)	0	0				(5)
	Pressure (line 13 is C or D) piping line leak detector (LLD function)	A	A				(5)
22.	LLD function includes a positive turbine pump shutoff	7	~	·.			(23)

[‡] at tank penetrations that have pipe that routinely contains or conveys product.

Site drawing / manifold schematic (not master-drone system):



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DEP, Division of Storage Tanks, P.O. Box 8763, Harrisburg, PA 17105-8763

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UNDERGROUND STORAGE TANK FACILITY
OPERATIONS INSPECTION

Facility Name HERR FOODS Date 6 6 14 Facility ID 15 - 24418	
II. Release Detection Reference Records may be located at the facility or a readily available alternate site. The records include all of the information listed below for chosen release detection methods.	4.7
 The inspector has actually seen the records. A test with an inconclusive result or failure is an indication of a (suspected) product release. 	
Tank Tank Tank Tank Instructions: Check the box to indicate that a criterion has been met. System System System System System System Circle the box to indicate that a criterion has not been met. Circle with "N/A" when a criterion is not applicable (provide comment).	
Automatic Tank Gauging: (Tank only – code E)	
ATG manufacturer: UFEOER OST ATG model: TLS 350	
Does the automatic tank gauge perform continuous in-tank release detection? Yes, No	
valid monthly leak test conducted and documented	
manufacturer's certification of ability to detect 0.2 gph release is available probes and gauge software certified for manifolded tank systems	
when not specifically certified, the siphon must be broken to properly test maintenance records, for the last year, including calibration, preventative and repair equipment is operational	
Manual Tank Gauging: (Tank only – code C, F, G44 or G58)	
tank capacity is 2,000 gallons or less	
L L L tank installed before 11/10/2007	
performed weekly 1/8th inch accuracy stick readings	
□ □ □ average 2 stick readings before and after test	
☐ ☐ Light L	
 36 hours minimum 44 hours, 551-1000 gallons, 64" diameter 	
58 hours, 551-1000 gallons, 48" diameter variation is within standard (both weekly and monthly)	
Precision Tightness Test (TTT): (Tank only – code C)	
method used (after 10/11/1994):	
date of last test:, result:	
complete documentation of tightness test available	
performed by UTT certified installer (after 9/28/1996) manufacturer's certification of ability to detect 0.1 gph release is available	
Interstitial Monitoring: (Tank code H; describe monitoring equipment in comments)	
interstitial area monitored monthly (required for tanks installed after 11/20/2007) interstitial sensors properly placed (per manufacturer's instructions)	
monitoring wells (secondary barrier) or ports are clearly marked and secured	
maintenance records, for the last year, including preventative and repair	
equipment manufacturer's performance claims are available secondary barrier is compatible with and impermeable to the stored substance	
Statistical Inventory Reconciliation: (Tank code D and/or Piping code J)	
test vendor: version:	
manufacturer's certification of ability to detect 0.2 gph release is available	
니 및 및 U data is collected according to the test vendor's instructions	
□ □ □ analysis completed monthly and valid results supplied to owner/operator within 20 da • valid reports include calculated leak rate, minimum detectible leak rate, leak ra	ys eak
threshold, probability of detection and probability of false alarm	
suspected releases properly investigated within 7 days of inconclusive or failed report confirm or deny the occurrence of a release	t to
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Page 3

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UNDERGROUND STORAGE TANK FACILITY
OPERATIONS INSPECTION

Facility Name HERR Fo	Date 6 6 14 Facility ID 15 - 24418
II. RELEASE DETECTION R	EFERENCE (continued)
Tank Tank Tank Tank Tank System System System System OCO OCT	Instructions: Check the box to indicate that a criterion has been met. Circle the box to indicate that a criterion has not been met. Circle with "N/A" when a criterion is not applicable (provide comment).
Groundwater or Vapor Mon	itoring: (Tank code J or K and/or Piping code E or F; describe well locations and
monitoring equipment in comm	orice)
	wells are located according to site evaluation; attach page with evaluator authentication to the inspection report
	wells are properly installed in accordance with site evaluation and regulations wells are monitored and results recorded monthly in accordance with site evaluation
	mornioning wells are marked and secured
	fill material is sufficiently porous to allow expeditious detection at the monitoring wells substance stored meets regulatory requirements for type of monitoring
	equipment manufacturer's performance claims are available
	equipment maintenance records, for the last year, including calibration, preventative and repair
Groundwater monitoring:	
	monitoring devices can detect 1/8 inch of product or less on water groundwater is within 20 feet of surface grade
	wells are sealed from ground surface to the top of the filter pack
Vapor Monitoring:	casing is properly slotted: allows entry of product during all groundwater conditions
	the monitoring device is not rendered inoperative by moisture
	background contamination will not interfere with vapor monitoring vapor monitors will detect increases in concentrations of stored substance
Interstitial Monitoring: (Pipir	g code D and/or L; describe monitoring equipment in comments)
	interstitial area monitored monthly (required for all totally-contained pressurized piping systems)
	secondary enters sump and allows a release to be detected
	interstitial sensors properly placed (per manufacturer's instructions) monitoring wells or ports (when used) are clearly marked and secured
	maintenance records, for the last year, including preventative and repair
	equipment manufacturer's performance claims are available secondary barrier (pipe) is compatible with and impermeable to the stored substance
	(Code L only) continuous monitoring used as line leak detector (gravity or prospurited
	piping) – capable of detecting 3.0 gph release within 1 hour (Code L only) system tested for operability within the last year
	(Code L only) monthly "sensor status" (or equivalent) records available
Sumps Checked Monthly	monthly sump checks for the last 12 months documented
	tank top sumps dry and clean
	transition sumps dry and clean dispenser pans/sumps dry and clean
Exempt Suction System: (SU	CTION piping only – code I)
U U U U U	ection required on piping meeting all these criteria. the tank top is lower than the suction pump inlet
	the below grade piping slopes uniformly back to the tank
	there is no more than one check valve in the piping the check valve is located close to or inside the suction pump
	compliance with above specifications can be readily determined; describe in comments
Original Regional Office Name of the same	es Barre, Harrisburg, Williamsport, Pittsburgh, or Meadville

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UNDERGROUND STORAGE TANK FACILITY

Facility Name	OPERATIONS INSPECTION HERR FOODS Date 6/6/14 Facility ID (5 24419
	Facility ID
Tank Tank Tan	ETECTION REFERENCE (continued)
System System System	k Tank Tank Instructions: Check the box to indicate that a criterion has been met. Circle the box to indicate that a criterion has not been met. Circle with "N/A" when a criterion is not applicable (provide comment).
Piping Tightness	(Line) Testing: (Piping only - code B or C)
test vendor: E	STAGROOK version: EZY CHEK
date of last test	
	test certification of ability to detect 0.1 gph release at 1.5 times operating pressure is available
	□ □ performed by UTT certified installer (after 11/10/2008) □ □ test conducted at proper frequency
	 conducted annually for pressurized piping without monthly monitoring
	conducted every 3 years for suction piping not meeting code I requirements if test device permanently installed, maintenance records, for the last year, including calibration, preventative and repair
Mechanical Line	Leak Detector: (PRESSURIZED Piping only - code A)
manufacturer:	MED JACKET model: FY/V FX/OU
date last tested	
	certification of ability to detect a release of 3 gph at 10 psig within 1 hour is available
	operational test of leak detector according to manufacturer's instructions in last 12 months maintenance records, in addition to the annual test, for last year, including calibration, preventative and repair
Electronic Line L	eak Detector: (PRESSURIZED Piping only – code K)
manufacturer: _	model:
date of last 3gp	
	self checking or system tested for operability within the last year certification of ability to detect a release of 3 gph at 10 psig within 1 hour is available
	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
	preventative and repair continuously monitors piping
Is the electronic	leak detector performing the "mouthly" mouthly and the control of
date of last 0.2	gph test:, result:
	= " gpn release is available
ls the electronic	documentation of monthly test available for last year
date of last 0.1	e leak detector performing the "annual" monitoring function?
	third-party certification of ability to detect 0.1 gph release is available
IUM Release Dete	ection Record Review: (All release detection codes)
	k (less than 1" of product/sludge) or a tank supplying an emergency generator only is <u>not</u> required to perform ion. Indicate date emptied or that it is an emergency generator tank in comments.
 Recently insta first product re 	lled tank systems must begin performing release detection immediately after receiving product. Indicate date of ceipt in comments.
	tank release detection records for the last 12 months the system contained product are
ਰ∕ਰ □	available tank release detection records are valid and passing
e e , o	piping release detection records for the last 12 months the system contained product are
	available piping release detection records are valid and passing
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Eacilit	. Nom	. u	C D (2 F.	UNDERGRO OP へろら	ERAT	IONS IN	SE TANK FA		=		.	
· · · · ·	7.5		100			Date	T	>114	Fac	cility ID _	19	- 244	118
III. CC	RROS	SION I	PROTI	ECTIO	N COMPLIANCE	CRITE	RIA						
Tank System	Tank System	System	Tank System	Tank System	Instructio		Circle the	box to indicat box to indicat "N/A" when a	te that a	criterion ha	s not been	met.	
Lined '	Tanks	(Tai	nk onl	v – co	do IV	7		· · · · · · · · · · · · · · · · · · ·	a criterio	u is not abl	oncable (pi	ovide comi	nent).
					tank inspected date lined:	and lir	ned acco	rding to nati	onal sta	andard			•
					tank initially ins date(s) inspect	pected	d 10 year	s after lining	g and e	very 5 yea	ars therea	after	
Galvar	ic and	lmp	ressec	l Catho	odic Protection:	(Tank	codo P	C O av D a					
					tank structure meets other na	to soil	potential	greater than	n 0.85 v	rolts or	cify:		
	-				potential on tai	nk curi	rent mon	toring	I	(date)		<u> </u>	
			$\overline{}$		potential on tai							 	
H		Н	H		pipe/flex struc meets other na	tionall	y recogn	zed protecti	r than 0 ion star	.85 volts, idard: spe	<u>or</u> cify: _		
				 .	potential on pi	pe/flex	current	monitoring	1				
			·		potential on pi j	e/flex	previou	sly monitore	id i	(date)			
f Catt	iodic	Prote	ection	or su	d Rectifier Output system designe system is turne documentation readings, recorded at lea most recent: 60 days prior: 120 days prior:	ed by a ed on a of la est onc volts: volts:	a corrosion de cor	on expert oning within amp (plus 0 days: amps: amps: amps:	n design	limits and runti runtime: _ runtime: _ runtime: _		date: date: date:	
			quii et		omphance).				Mistrig	talik sy	stein, ii	ii in the	TOHOWING
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Original: Regional Office - Norristown, Wilkes Barre, Harrisburg, Williamsport, Pittsburgh, or Meadville Copy: Copy: DEP Dission of Storage Tanks, P.O. Box 8763; Harrisburg, PA 17105-8763 Inspector

UNDERGROUND STORAGE TANK FACILITY OPERATIONS INSPECTION

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Original: Regional Office – Norristown, Wilkes Barre, Hamisburg, Williamsport, Pittsburgh, or Meadville Owner
Copy: DEP, Division of Storage Tanks, P.O. Box 8763, Hamisburg, PA 17105-8763

EZY CHEK SYSTEMS

Systems & Training for the Petroleum Industry

DATA SHEET

Test Loc	ation Infor	mation							
Name		Herr Foods Inc							
Address		20 Herr Drive							
City		Notting	gham, PA	19362	-				
Phone			10-932-93						
Contact		······································	Dave Mora	The state of the s	Service of the servic				
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#1				Gasoline	ž				
TIME	DATA	-/+	GPL	RES	GPH				
9:30	65	0	0.0037	0.0000	0.0000				
9:45	65	0	0.0037	0.0000	0.0000				
10:00	65	0	0.0037	0.0000	0.0000				
10:15	65	0	0.0037	0.0000	0.0000				
10:30	65	0	0.0037	0.0000	0.0000				
10:45	65	0	0.0037	0.0000	0.0000				
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Testing Company Information						
Name	Eldreth Environmental Services					
Address	654 Colora Road					
City	Colora. MD 21917					
Phone	610-842-2418					

03/30/15

Technican Inform	
Name	Tim Eldreth
Cert #	6523

50ps

AND	The second second					
200	#2				Diesel	
300 m	TIME	DATA	-/+	GPL	RES	GPH
	9:45	40	0	0.0037	0.0000	0.0000
100	10:00	40	0	0.0037	0.0000	0.0000
12	10:15	40	0	0.0037	0.0000	0.0000
200	10:30	40	0	0.0037	0.0000	0.0000
į.	10:45	40	0	0.0037	0.0000	0.0000
- Areas	11:00	40	0	0.0037	0.0000	0.0000
1						 ;
S INCHES				PASS		গ্

Applied Pressure

#4					
TIME	DATA	-/+	GPL	RES	GPH 1
		0	0.0037	0.0000	0.0000
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		0	0.0037	0.0000	0.0000

EZY CHEK SYSTEMS

03/30/15

50psi

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FINAL REPORT

Systems & Training for the Petroleum Industry

Testing Compa	any Information
Name	Eldreth Environmental Services
Address	654 Colora Road
City	Colora, MD 21917
Phone	610-842-2418
Technican Info	
Name	7 Tim Eldreth
Cert#	6523

lest Location Information				
Name	Herr Foods Inc.	;		
Address	20 Herr Drive	1		
City	Nottingham, PA 19362			
Phone	610-932-9330	j		
Contact	Dave Moran	•		

PRODUCT LINE TEST

Applied Pressure

	Product Type	Result
#1	Gasoline	PASS
#2	Diesel	PASS
#3	0	0
#4	0	0
#5	0	0
#6	0	0

Comments/Recommendations:

EZY CHEK SYSTEMS/Eldreth Env. Services

DATA SHEET

Systems & Training for the Petroleum Industry

Test Location Information

 A SECTION AND A SECTION ASSESSMENT	WWW.Common and and the common and th
3/30/2015	

Testing Company Information

Name :	Herr Fo	oods Inc.	:	Name	Eldreth E	nvironmenta	al Services
Address	20 He	rr Drive	,	Address	and the second s	54 Colora Ro	
City	Nottinghar	n, PA 19362		City	Co	lora, MD 21	917
Phone	610-93	32-9330		Phone		610-842-241	bacamerican and and an area.
Contact	Dave	Moran		Technican Info	and the state of t	он шово Дамине, от на 11-35 до 16 Минеска поставления с 2000	and the state of t
			Ĩ	Name	Tim Eldreth	7-1	
			:	Cert #	enementalistic menteriore international confessioners of the assessment	90-6523	managan managan managan di dagan sembahan sebesah persebuah sebesah sebesah sebesah sebesah sebesah sebesah se
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PUMP#	Product Type	Metering Pressure	Element Holding PSI	Resiliency	Rate	Opening	Dans (F. 1)
					ML/MIN	Time	Pass/Fail
1		26psi	17psi	80mil	189ml	2sec	PASS
2	Diesel	28psi	16psi	75mil	189ml	3sec	PASS
3					189ml		L.
4					189ml	"	
5					189ml		
6					189ml		
7					` ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '		
8					189ml		
·		1	1		189ml	1	l

EZY CHEK SYSTEMS

Systems & Training

DATA SHEET

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ion Infor	Test Location Information					City		Colora. N	1D 219 17	ACTION AND THE PARTY NAMED IN
	mation	-1				Phone		610-84	2-2418	
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03/03/14

Eldreth Environmental Services

Testing Company Information

EZY CHEK SYSTEMS

03/03/14

50psi

Systems & Training
for the
Petroleum Industry

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for the		

Testing Comp	any Information								
Name	Name Eldreth Environmental Services								
Address	654 Colora Road								
City	Colora, MD 21917								
Phone	610-842-2418								
Technican Info	ormation								
Name 7	Tim Eldreth								

Test Location Information						
Name	Herr Foods Inc.					
Address	20 Herr Drive					
City	Nottingham, PA 19362					
Phone	610-932-9330					
Contact	Dave Moran					

PRODUCT LINE TEST

Applied Pressure

And the second second	Product Type	Result
#1	Gasoline	PASS
#2	Diesel	PASS
#3	0	0
#4	0	0
#5	O	0
#6	0	0

Comments/Recommendations:

EZY CHEK SYSTEMS/Eldreth Env. Services

DATA SHEET

Systems & Training for the Petroleum Industry

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Test Locat	ion Information		_	Testing Compa	ny Informat	ion		
Name	Herr	Foods Inc.		Name	The second secon	invironment	al Services	
Address	20	Herr Drive	:	Address		54 Colora Ro	- Andrew Martin Committee of Committee of the Committee o	
City	Notting	nam, PA 19362	- :	City	Co	olora, MD 21	917	
Phone	610	-932-9330	<u>.</u>	Phone		610-842-241	a Minimal and and the Minimal of Spirits and the spirits and t	
Contact	Da	ve Moran		Technican Info	rmation	The second secon	ner sene menn kunt kun dalam mengilik kupa kutah kepa a daggan a sen	
				Name	Tim Eldreth	1. Et	Same and the same	
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		and a second contract of the c		Standard Law Borner (L. J. Company of Standard	outerature and a contract of a supplicative section and a figure species.	randorffeliados este del como filo por Era direga e e rico a este englistança m	manana angra 1 manganananan kanggara 1 km sa kanggarah kan 1	
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PUMP#	Product Type	Metering Pressure	Functional Element Holding PSI	Resiliency	Test Leak Rate ML/MIN	Opening Time	Pass/Fail	
: ! 1	l Regular	26psi	17psi	75mil	189ml	2sec	PASS	
2	2 Diesel	30psi	16psi	75mil	189ml	2sec	PASS	
	3			. 311111		2356	FASS	
					189ml			
	1				189ml			
<u>.</u>	5		1	i	100]	1	

APPENDIX C Soil Boring and Monitoring Well Logs



SB-6

(Page 1 of 1)

Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania

03-24-2015 H:\Projects\10172\101722001\G\S\Boring Logs\\SB-6.bor

Date Completed Boring Diameter

: 10/16/2014 : 2-inch

Drilling Method : Track Mounted Geoprobe

Surface Elev. :NA Datum :NA : 10.0 ft. Groundwater Meas.

	Project No: 101722001 Sampling Method : Direct Push, RETTEW Rep. : E. Dziedzic			: Direct Push, 5-Foot : E. Dziedzic	Interval		lwater Elev . : N lwater Time : N			
Depth in Feet	Surf. Elev.0	DES	CRIPTION		nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
0-	0	0.0-1.0'; ASPHALT and BALLAS	ST STONE							ş
1-	-1	1.0-5.0'; No recovery, very soft.							0.0	
3 3 4 -	2 3 4				SM					
5-	5	5.0-10.0'; SILTY SAND, micace recovery.	ous, grayish-brown, v	very soft, 30%					62	
7 - - 8 -	6 7 8 9				SM					
10-	-10	10.0-20.0'; Completely decompo gray and black, petroleum odor,	osed miscaceous SC wet at 10 feet	HIST, brown,		なみなみな	SB-6 @ 10 ft.	13:30	234	
11 –	11	gray and blash, pensional cash,				23,23,2 23,23,2	3.440		215	
12-	12					23/23/2 23/23/2			59	
-	-13								154	
14 –	-14								71	
15-	-15								77	
16-	-16									
17 –	- 17								28	
18 –	-18									
14 — 15 — 16 — 17 — 18 — 20 — 21 —	-19								7.5	
20 –	-20	20.0'; End of boring.				是为是有是 在大线大线				
21 –	-	25.5 , Elia di bolling.								



SB-7

(Page 1 of 1)

Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania

Date Completed **Boring Diameter**

: 10/16/2014 : 2-inch

Surface Elev.

Datum

:NA :NA : 11.0 ft.

	Nottingham, Pennsylvania Drilling Method : Track Mounted Geoprobe Project No: 101722001 Sampling Method : Direct Push, 5-Foot Interval RETTEW Rep. : E. Dziedzic			Ground	lwater Meas. Iwater Elev.	: NA : 11.0 ft. : NA : NA				
Depth in Feet	Surf. Elev.0	DES	CRIPTION		nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
0-	P6	0.0-1.0'; ASPHALT and BALLAS	ST STONE							
-	 -1	1.0-7.0'; SILTY CLAY, brown, m	icaceous, petroleum	odor, moist.		///			0.0	
9 <u>2</u>	2					//			0.4	
3-	3					//			0.6	
4-	-4				CL				4	
5-	- -5					//			239	
	6								127	
<u></u>	7	7.0-10.0'; SAND, micaceous, lig	ht brown, petroleum	odor.					205	
=	8				SM		SB-7 @ 8 ft.	13:00	252	
1	9								215	
-	-10	10.0-14.0'; Completely decompo	osed miscaceous SC at 11 feet.	HIST saprolite,		2000年			205	
	11									
-	12								164	
	13									
14 –	14	14.0-20.0'; Completely decomposition grayish brown, wet at 11 feet	sed micaceous SCH	HIST saprolite,						
15 –	15								58	
16 –	16					在大名文化 第六年大名			57	
17 –	17 -								45	
18 –	18								106	
-	19					是我是我们 第八年			12	
20 -	20	20.0'; End of boring.				TO POST PORT		<u>. </u>		*
21 –										

03-24-2015 H:\Projects\10172\101722001\G\S\Boring Logs\\SB-7.bor



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Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania Project No: 101722001 **Date Completed Boring Diameter** : 10/16/2014 : 2-inch

Drilling Method : Track Mounted Geoprobe

Surface Elev. :NA Datum :NA Groundwater Meas. : 15.0 ft.

DESCRIPTION	Project No: 101722001			Sampling Method RETTEW Rep.				Groundwater Elev. : NA Groundwater Time : NA			
10-5.0°; CIAYEY SILT, grayish brown, micaceous, petroleum odors, and an arrange of the state of	**	10125	DES	SCRIPTION		nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
1.0-5.0; CLAYEY SILT, grayish brown, micaceous, petroleum odor, dr. 11.5 11.5 15.0-7.0; SANDY SILT, micaceous, light brown, petroleum odors, moist. 5.0-7.0; SANDY SILT, micaceous, light brown, petroleum odors, moist. 7.0-11.0; SAND micaceous, light brown with weathered schist fragments, moist. 8-8 9-9 10-10 11-11 1212 1313 1414 1515 1616 1717 1818 1919 2020 20.0; End of boring.	0-	0	0.0-1.0'; ASPHALT and BALLA	ST STONE					150		
3 - 3	_		1.0-5.0'; CLAYEY SILT, grayish dry.	brown, micaceous, p	petroleum odor,					0.0	Ε
11.5 61.7 61	-					MI				2.0	
5 -5 5.0-7.0°; SANDY SILT, micaceous, light brown, petroleum odors, moist. ML 154 161	-					1411				11.5	
5.0-7.0; SAND, micaceous, light brown with weathered schist fragments, moist. 154	-									61.7	
7 -7	-		5.0-7.0'; SANDY SILT, micaced moist.	ous, light brown, petro	oleum odors,	MI				154	
8 - 8 7 ft. 11.55 214 192 130 184 11.0-20.0°; Completely decomposed micaceous SCHIST. grayish brown, wet at 15 feet. 28 19 11 11 11 11 11 11 1	-					33.4				161	
9 - 9 1010 1	9 <u>-</u>		7.0-11.0'; SAND, micaceous, lig fragments, moist.	ght brown with weathe	ered schist			SB-8 @ 7 ft.	11:55	214	
11010 11111 11212 1313 1414 1515 1616 1717 1818 1919 2020 20.0'; End of boring.	-					SM				192	
1111 1212 1313 1414 1515 1616 1717 1818 1919 2020 20.0'; End of boring.	-									130	
11.0-20.0°; Completel y decomposed micaceous SCHIST, grayish brown, wet at 15 feet. 1212 1313 1414 1515 1616 1717 1818 1919 2020 20.0°; End of boring.										164	·
1313 1414 1515 1616 1717 1818 1919 2020 20.0'; End of boring.			11.0-20.0'; Completel;y decomp brown, wet at 15 feet.	oosed micaceous SC	HIST, grayish		25252 25252			56	
19 1414 1515 1616 1717 1818 1919 2020 20.0'; End of boring.	_						19494 19494			28	
1515 1616 1717 1818 1919 2020 20.0'; End of boring.	-						2),2),2 21,21,2			19	
1616 1717 1818 1919 2020 20.0'; End of boring.	-	106 - 404					49,494 29,292			11	
1717 1818 1919 2020 20.0'; End of boring.	_						23/23/2 23/23/2			8.8	
18 — -18 19 — -19 20 — -20 20.0'; End of boring.	-						aliaka aliaka			4.0	
2.1 20 -20 20.0'; End of boring.	=						28282 28282			4.5	:
2020 20.0'; End of boring.	_						23,23,2 23,23,2			2.1	
20.0"; End of boring.	-						(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(20.		2.9	
	-		20.0'; End of boring.								

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Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania

03-24-2015 H:\Projects\10172\101722001\G\S\Boring Logs\\SB-9.bor

Date Completed

Boring Diameter Drilling Method

: 2-inch : Track Mounted Geoprobe

: 10/16/2014

Surface Elev. :NA Datum :NA

: 10.0 ft. Groundwater Meas.

	Nottingham, Pennsylvania Project No: 101722001		Drilling Method Sampling Method RETTEW Rep.	: Track Mounted Geo : Direct Push, 5-Foot : E. Dziedzic		Ground	lwater Elev. : N	10.0 ft. NA NA		
Depth in Feet	Surf. Elev.0	DES	CRIPTION		nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
0-	0	0.0-1.0'; TOPSOIL, dark brown.								
-	 -1	1.0-5.0'; SILTY CLAY, light brow	n, micaceous, moist			1//			0.2	
-	- -2								0.2	
-	+ -3 -				CL				0.5	
4-	+ -4 -								0.5	
5-	5 - 6	5.0-13.0'; Completely decompositions and gray, wet at 10 feet.	ed micaceous SCHI	ST saprolite, light					0.6	
7-	0 7								0.5	
8-	- ' 8								0.5	
9-	9								0.5	
1	10								0.8	
	- 11						SB-9 @ 10 ft.	14:05	1.0	
	12								0.5	
13 –	13	13.0-18.0'; Micaceous SCHIST s	contolito arconich ar	ov majet					0.5	
14 –	- 14	13.0-16.0 , Milcaceous 30mi31 s	sapronte, greensii-gr	ay, moist.		対対な			0.5	
15 –	- 15								0.4	
16 –	-16								0.7	
17 –	- 17								0.4	
18 –	-18	11.0-20.0'; Micaceous SCHIST s	saprolite, brown, moi:	st.					0.6	
19-	-19		0						0.6	
14 – 15 – 16 – 17 – 18 – 19 – 20 –	-20	20.0'; End of boring.				作りたりた 行う行うだ			0.4	
21-										



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Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania Project No: 101722001 Date Completed Boring Diameter Drilling Method

: 2-inch : Track Mounted Geoprobe

Sampling Method : Direct Push, 5-Foot Interval RETTEW Rep. : E. Dziedzic

: 10/16/2014

Surface Elev. : NA
Datum : NA
Groundwater Meas. : 5.0 ft.

Groundwater Elev. : NA
Groundwater Time : NA

Depth in Feet	Surf. Elev.0	DESCRIPTION	nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
0-	- 0	0.0-1.0'; TOPSOIL, dark brown.				i (5)		
1-	1							
_		1.0-5.0'; CLAYEY SILT, brown, micaceous, moist, very soft, 20% recovery.						
2-	2						0.4	
3-	3		ML					
4 —	4							
_	F							
5-	5	5.0-10.0'; Completely decomposed micaceous GNEISS saprolite, brown and gray, soft, 50% recovery, wet at 5 feet.		行うなうな	SB-10 @ 5 ft.	14:40	0.4	
6-	6					*		
7-	7			作品を表				
- 8 –	8			是大型大型 大型大型大				
							0.3	
9-	9							
10 —	10	10.0-15.0'; Micaceous GNEISS saprolite, gray.		49292 52525				
- 11 —	11	, , , , , , , , , , , , , , , , , , , ,					0.3	
=							0.4	
12 -	12			45454			0.4	
13 —	13			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1			0.4	
14 —	14						0.4	
15	15			4			0.4	
15 –	r-10	15.0'; End of boring.						
16-	16							

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17 + -17

19

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18 + -18

-19



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Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania Project No: 101722001 Date Completed Boring Diameter : 02/05/2015 : 2-inch : Track Mounted Geoprobe

Drilling Method : Track Mounted Geoprobe
Sampling Method : Direct Push, 5-Foot Interv

Surface Elev. : NA
Datum : NA

Groundwater Meas. : NA
Groundwater Fley : Not observed

	Project No: 101722001		Sampling Method RETTEW Rep.					Not observed NA		
Depth in Feet	Surf. Elev.0	DE	SCRIPTION		nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
0-	76	0.0-5.0'; SANDY SILT with clay reworked fill from airknife, mice	v, red/brown, very low aceous.	plasticity,						
_	1								0.4	
£	2 3				ML				0.4	
4-	4								0.4	Í
5 –	5	5.0-15.0'; Completely decompo	sed micaceous SCH	IST sanrolite		1-72-72			0.4	
6-	6	orange-grey, perched water at	10-11'?	io i sapronto,		等数符数符 符数符数			0.4	
7-	7					はない。 はない。 はない。 ない。 ない。 ない。 ない。 ない。 ない。 ない。 ない。 ない。			0.3	
8-	8					ななない。			0.3	
9-	9					29,29,2 29,29,2			0.2	
	10					性致性致性 性致性致性			0.3	
-	11					等数符数符 特数数数 数数数数			0.2	
-	12 13					在我在我的 在我在我也 在我在我在			0.2	
_	13 14					ないない。	SB-11 @ 14ft.	1000	0.2	
	15	15.0.20 Oli Woothored hadrook hadrook	1000/ 1000/07/ 000	ld not rotrious		44444	Bulk Density	14-15ft.	0.2	
16 —	16	15.0-20.0'; Weathered bedrock sample from sampling tube.	., 100% recovery, cou	iu notretileve					8 <u>2</u>	
17 –	17					是数字数字 数字数字			0.F.	
18 —	18								iie.	
19-	- 19									
20 -	20	20.0'; End of Boring				(表表表)	ş:		2000 S	
21 –										

03-24-2015 H:\Projects\10172\101722001\GS\Boring Logs\SB-11.bor



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:NA

Herr Foods, Inc.
273 Old Baltimore Pike
Nottingham, Pennsylvania
Project No: 101722001

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20 –

Date Completed	: 02/05/2015
Boring Diameter	: 2-inch
Drilling Method	· Track Mounted Geo

	Datum	:NA
oprobe	Groundwater Meas.	: NA
t Interval	Groundwater Elev.	: 15'
	1027 Pt AMS 62400	

Surface Elev.

	Project No: 101722001		Sampling Method : Direct Push, 5-Foo RETTEW Rep. : D. Black		Groundwater Meas NA Groundwater Elev. : 15' Groundwater Time : NA				
Depth in Feet	Surf. Elev.0	DES	CRIPTION	nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
0-	0	0.0-5.0'; SANDY CLAY, grey, m reworked airknife fill.	edium stiff, moist, micaceous,						
1-	-1							1.2	
2-	-2			sc				1.2	
3-	3								
4 —	-4							1.2	
5-	- 5	FO 7 OF CANDY OF Theorem	vadium lagos migagosus ODOD					1.2	
6-	6	5.0-7.0 , SANDT SILT, DIOWIT, IT	nedium loose, micaceous, ODOR	ML				53.7	
-	7				31 14 34 74			148	
_		brown, black, and reddish brown	sed micaceous SCHIST saprolite, n banding, moist to dry, ODOR.		ななななな			108	
8-	8	Saturated at 15 ft.			は表現を含む	SB-8 @ 8 ft.	1215	728	
9-	9				23,23,2 23,23,2	7	150	137	
10 -	-10				23/23/2 23/23/2			10.9	
11-	-11							24.1	
12-	-12								
13 –	-13				在のなりでは、	SB-12 @ 12 ft.	1220	106	
14 —	- 14							50.1	
] 15 –	- 15				在共產共產 在共產共產			15.1	
_	16	17.0-18.5'; Completely decomposing grey/brown, very dense, NO OD	osed micaceous SCHIST saprolite, OR.					1.7	
_					A 经经验			15.4	
_	17							2.4	
18 –	18	40 50 50 50	verfine!			SB-8 @18 ft.	1225	5.6	
19 –	-19	18.5'; End of boring at geoprobe	e retusal						



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:NA

:NA

Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania Project No: 101722001 Date Completed Boring Diameter Drilling Method

Sampling Method

RETTEW Rep.

: 02/05/2015 : 2-inch

: D. Black

: Track Mounted Geoprobe : Direct Push, 5-Foot Interval Groundwater Meas. : NA Groundwater Elev. : ~10'

Surface Elev.

Datum

Groundwater Time : NA

Depth in Feet	Surf. Elev.0	DESCRIPTION	nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
0-	98	0.0-3.0'; SILTY CLAY, grey, moist, trace gravel					0.0	
1-			CL				1.8	
2-	2						1.0	
3 — - 4 —	3	3.0-7.0'; SILTY SAND, brown, loose, moist, micaceous.					1.0	
4 — - 5 —	4 5		SP				1.0	
- 6-	6		OI .				1.8	
- 7-	7						1.0	
8-	8	7.0-13.0'; Completely decomposed, micaceous, SCHIST saprolite, saturated at 12'.		マスス			1.4	,
9 —	9			大大大大大大大大大大大大大大大大大大大大大大大大大大大大			1.2	
- 10 —	10			·			1.0	
- 11 —	11		1	· 大火	SB-13 @ 10 ft.	1120	0.6	
- 12 –	12			大大 大大			1.2	
- 13 —	13	13.0'; End of boring		*			0.4	
-		10.0 , End of boiling						

03-24-2015 H.NProjects\10172\101722001\GS\Boring Logs\SB-13.bor

15 + -15

-16

-17

-19

18 - - 18

16-

17

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Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania Project No: 101722001

Date Completed Boring Diameter Drilling Method

Sampling Method

: 02/05/2015 : 2-inch

: Track Mounted Geoprobe

: Direct Push, 5-Foot Interval

Surface Elev. :NA

Datum :NA Groundwater Meas. : NA

Groundwater Elev. : Perched @ 10'?

		RETTEW Rep. : D. Black		Ground	dwater Time : N	1A		
Depth in Feet	Surf. Elev.0	DESCRIPTION	NSCS	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
10005	- 0 - 1	0.0-5.0'; SILTY SAND with gravel, brown, loose, moist, micaceous, reworked air knife fill.					1.0	
-	2						1.0	
3-			SP				0.6	
-	-4						0.6	
=	- 5		5				0.4	
-	6	5.0-7.5'; SANDY SILT with gravel, brown, loose, wet, micaceous, perched?	20000				0.6	
-	-7		ML				0.4	
8-	-8	7.5-14.0'; Completely decomposed, micaceous, SCHIST saprolite, grey-brown, dense, moist. Wet @ 10' not sure if perched.		· · · · · · · · · · · · · · · · · · ·			0.6	
9-	- 9	grey brown, derise, moist, wet & not sale if percined.		八八八八八八八八八八八八八八八八八八八八八八八八八八八八八八八八八八八八八八八			0.5	
10 -	-10			· 次次			0.6	
11-	- 11			(火火 (火火			0.4	
12-	-12			大大 大大	SB-14 @ 11 ft.	1135	0.4	
13-	-13			大次 大 大次 大			0.4	
14 —	14	14.0'; End of boring		マンド		9	0.4	
- 15 –	- 15	14.0, End of boring						
4	I	I						

03-24-2015 H.NProjects\10172\101722001\GS\Boring Logs\SB-14.bor

17 + -17

18 - - 18

-19

19



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:NA

:NA

: NA

Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania Project No: 101722001 Date Completed Boring Diameter : 02/05/2015 : 2-inch : Track Mounted Geoprobe

Drilling Method : Track Mounted Geoprobe
Sampling Method : Direct Push, 5-Foot Interval
RETTEW Rep. : D. Black

Groundwater Meas. Groundwater Elev.

Surface Elev.

Datum

Groundwater Elev. : 12'
Groundwater Time : NA

Depth in Feet	Surf. Elev.0	DESCRIPTION	nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
0-	0	0.0-7.0'; SILTY SAND with clay, brown, loose, moist, micaceous, reworked air knife fill, perched @ 4.5', very low plasticity.				19	0.7	
1-	-1						0.8	
2-	-2						0.4	
3-	3		SP				0.4	:
4 -	-4						0.4	
5-	5						0.4	
6-	-6							
7-	-7	7.0-14.5'; Completely decomposed, micaceous, SCHIST saprolite,		大大大			0.4	Ε
8-	8	7.0-14.5'; Completely decomposed, micaceous, SCHIST saprolite, dense, saturated @ 12'.		大火火			0.4	
9-	9			大大			0.5	
10 -	10			-X-X-			0.4	
	- 11			大大大			0.4	
-	12			公 公	SB-15 @ 11 ft.	1155	0.3	
<u>.</u>				公公			0.3	
_	13			· · · · · · · · · · · · · ·			0.2	
14 —	14	14.5': End of horing		六次次	27		0.2	
15 -	-15	14.5'; End of boring						

03-24-2015 H.NProjects\10172\101722001\GS\Boring Logs\SB-15.bor

17 + -17

18 - - 18

-19

19



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:NA

Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania Project No: 101722001 Date Completed Boring Diameter

: 02/05/2015 : 2-inch

Drilling Method : Track Mounted Geoprobe
Sampling Method : Direct Push, 5-Foot Interval
RETTEW Rep. : D. Black

Surface Elev. : NA
Datum : NA
Groundwater Meas. : NA
Groundwater Elev. : 12.5'

Groundwater Time

Sample Name Depth in Feet Sample Time Recovery (%) Elev.0 GRAPHIC PID (ppm) DESCRIPTION Surf. 0. +0 0.0-9.0'; SILTY SAND with gravel, dark grey, loose, moist, micaceous, rootlets, reworked air knife fill to 5'. 0.8 1 + -1 1.2 1.5 1.4 0.6 SP 0.4 1.2 7 + -70.6 + -8 0.8 9.0-14.5'; Completely decomposed, micaceous, SCHIST saprolite, 0.4 dense, saturated @ 12.5'. 10 + -10 0.4 11 + -111.7 12 + -12SB-16 @ 12 ft. 1445 1.2 13 + -130.6 14 + -14 0.4 Weathered bedrock, SCHIST. 15 + -1515.0'; End of boring

03-24-2015 H:NProjects/110172/101722001/GS/Boring Logs/SB-16.bor

16 + -16

17 + -17

18 + -18

19 + -19



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:NA

Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania Project No: 101722001

03-24-2015 H.NProjects\10172\101722001\GS\Boring Logs\SB-17.bor

16

17 + -17

18 - - 18

-19

19

20 -

Date Completed Boring Diameter

: 02/05/2015 : 2-inch : Track Mounted Geoprobe

Drilling Method : Track Mounted Geoprobe
Sampling Method : Direct Push, 5-Foot Interval
RETTEW Rep. : D. Black

Surface Elev. : NA
Datum : NA
Groundwater Meas. : NA
Groundwater Elev. : 13.5'

Groundwater Time

Depth in Feet	Surf. Elev.0	DESCRIPTION	nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
0-	- 0	0.0-5.0'; SANDY SILT with clay, dark grey, loose, moist, micaceous, rootlets, reworked air knife fill.					49.9	
1-	1	Tooleto, remarked all famile iiii.					147	
2-	2						Sec. 383.00	
3-	3		ML				76.7	
4-	4						101	
5-	5						268	
-	9000	5.0-14.0'; Completely decomposed, micaceous, SCHIST saprolite, dense, saturated @ 13.5'.		大大大			1968	
6-	6			大大大	SB-17 @ 7 ft.	1250	1579	
7-	7			大大大			154	
8-	8			大火火			124	
9-	9			大火火			27.8	
10 —	10			公头	SB-17 @ 11 ft.	1255	1758	
11-	11			大大大	36-17 @ 1111.	1233	94294047943044C	
12-	12			大 大 大 大 大			82.0	
13-	13			大大大			359	
_	14			· 次次		v 98	26.3	
-		Weathered bedrock, SCHIST.		大大大	SB-17 @ 15 ft.	1300	10.7	
15 —	15	15.0'; End of boring		CAL A		L ·	¥	



(Page 1 of 1)

Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania Project No: 101722001

Date Completed Boring Diameter

: 02/05/2015 : 2-inch

Drilling Method : Track Mounted Geoprobe : Direct Push, 5-Foot Interval Sampling Method RETTEW Rep. : D. Black

Surface Elev. :NA Datum :NA Groundwater Meas. : NA Groundwater Elev. : 12'

Groundwater Time :NA

Depth in Feet	Surf. Elev.0	DESCRIPTION	nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
0-	- 0	0.0-5.0'; SILTY SAND, grey-brown, loose, moist, reworked air knife fill.				÷ (5)	47.7	
1-	1	110.					56.4	
2-	2						16.000000	
3 –	3		SP				25.6	
- 4 —	4						185	
=							62.4	
5 -	5	5.0-9.0'; SANDY SILT with clay, grey, dense, moist, slight odor, micaceous.		大大			69.5	
6 -	6			火火			26.1	
7-	7			(火)			34.1	
8 –	8			スポス				
9-	9	9 0'-15 0' Completely decomposed micaceous SCHIST saprolite		大大		7 (5)	55.4	
10 —	10	9.0'-15.0'; Completely decomposed, micaceous, SCHIST saprolite, slight odor, saturated @10'-13', slight odor.		大火 大火	SB-18 @ 10 ft.	1320	88.8	
- 11 –	11			大大			9.7	
-				次次			22.1	
-	12			次次	SB-18 @ 13 ft.	1325	104	
13 -	13			八次次	4	c (9)	84.5	
14 —	14			で次次 マ次次	SB-18 @ 15 ft.	1330	4.0	
15 —	15	15.0'; End of boring		大大力	22 10 @ 10 16	1000		
16 —	16							

03-24-2015 H.NProjects\10172\101722001\GS\Boring Logs\SB-18.bor

17 + -17

18 - - 18

-19

19



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:NA

Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania Project No: 101722001 Date Completed Boring Diameter Drilling Method

Sampling Method

RETTEW Rep.

: 2-inch : Track Mounted Geoprobe

: 02/05/2015

: Direct Push, 5-Foot Interval : D. Black Surface Elev.: NA
Datum: NA
Groundwater Meas.: NA
Groundwater Elev.: ~10'

Groundwater Time

Depth in Feet	Surf. Elev.0	DESCRIPTION	nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
0-		0.0-8.0'; SILTY SAND with gravel, red-brown, loose, moist, reworked air knife fill, perched @ 7'.				19	1.3	
	1 _						0.8	
2-	2						0.6	
3-			2.5				0.5	
4-	4 5		SP				0.6	
6-	-5 6						1.8	
7-							3.6	
8-	8						0.8	
9-		8.0-15.0'; Completely decomposed, micaceous, SCHIST saprolite, saturated 10'-12'.		7次次7次次次			1.0	
	10			ススス	SB-19 @ 10 ft.	1400	0.9	
	11						0.8	
<u>-</u>	12			· · · · · · · · · · · · ·			0.4	
	-12			大大大			0.6	
_	-14			· 次次			0.4	
-	15			大大: 大大:			0.4	
-	16	15.0'; End of boring						

03-24-2015 H:NProjects/10172/101722001/GS/Boring Logs/SB-19.bor

17 + -17

18 - - 18

-19

19



(Page 1 of 1)

:NA

Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania Project No: 101722001 Date Completed Boring Diameter Drilling Method

: 2-inch : Track Mounted Geoprobe

: 02/05/2015

Sampling Method : Direct Push, 5-Foot Interval RETTEW Rep. : D. Black

Surface Elev. : NA
Datum : NA
Groundwater Meas. : NA
Groundwater Elev. : 12'

Groundwater Time

Depth in Feet	Surf. Elev.0	DESCRIPTION	nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
0-	100	0.0-8.5'; SILTY SAND with gravel, dark grey, loose, moist, reworked air knife fill to 5'.					0.2	
	1						0.2	
2-	2						0.2	
3-	3						0.2	
4-	4		SP				0.2	
5-							1.8	
6-	6						47	
7-	7				SB-20 @ 8ft.	1520	173	
8-	8	8.5-14.5': Completely decomposed, micaceous, SCHIST saprolite.		***		2 62	90	
9-	9	8.5-14.5'; Completely decomposed, micaceous, SCHIST saprolite, dense, grey-brown, saturated at 12'.		大火; 大火;			11.4	
-	10			大火	SB-20 @ 11 ft.	1525	75.4	
-	11			大大大			72.9	
_	12			7次次			38.8	
20170235 1 <u>-</u>	13			八大大			5.1	
-	14	14.50'-15.0'; Weathered bedrock, SCHIST		· 次次:	SB-20 @ 15 ft.	1530	2.3	
15 —	15	15.0'; End of boring		(× (×)			le .	

03-24-2015 H.NProjects\10172\101722001\GS\Boring Logs\SB-20.bor

16 + -16

17 + -17

18 - - 18

-19

19



(Page 1 of 1)

Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania Project No: 101722001

Date Completed Boring Diameter Drilling Method

: 02/05/2015 : 2-inch

: Track Mounted Geoprobe

: Direct Push, 5-Foot Interval Sampling Method

Surface Elev.

:NA Datum :NA Groundwater Meas. : NA

Groundwater Elev. : Not observed

	***	RETTEW Rep. : D. Black		Ground	lwater Time : N	IA		
Depth in Feet	Surf. Elev.0	DESCRIPTION	USCS	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
0-	- 0 1	0.0-5.0'; SANDY SILT with clay, brown, loose, moist, micaceous, rootlets, reworked air knife fill.				8	-	20
(1 2						:+	
3-	3		ML				8.50	
4-	4							
5-	5	5.0-7.0'; SILTY SAND, brown, medium dense, moist, micaceous, slight odor.		大次			3.0	
-	6			· // // // // // // // // // // // // //			4.7	
8-	7 8	7.0'-9.0'; SILTY SAND, black, medium dense, dry, micaceous, ODOR, STAINING.	SP		SB-21 @ 8 ft.	1050	463	
9-	9					, which is a second of the sec	417	
10 —	10	9.0'-15.0'; Completely decomposed, micaceous, SCHIST saprolite, grey-brown, dense, dry to moist, no odor. No recovery 10'-14' sample stuck in tube.		· · · · · · · · · · · · · ·	SB-21 @ 10 ft.	1055	11.8	
11-	11			(火火			8-	0
12-	12			ス次次			1.5	
1	13			· 公公公公公公公公公公公公公公公公公公公公公公公公公公公公公公公公公公公公			-	
14 —	14			· 公次次 大次次			2.7	
14 — 15 — 16 — 17 — 17 — 17 — 17 — 17 — 17 — 17	15	15.0'; End of boring		大大公			250010	8
16 –	16							
	17							
18-	18							

03-24-2015 H.\Projects\10172\101722001\GS\Boring Logs\SB-21.bor

19

20 -

- -19



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Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania Project No: 101722001

07-29-2015 H.\Projects\10172\101722001\GS\Boring Logs\SB-22.bor

Date Completed Boring Diameter

: 06/12/2015 : 2-inch

Drilling Method : Track Mounted Geoprobe Sampling Method : Direct Push, 5-Foot Interval

Surface Elev. :NA Datum :NA

Groundwater Meas. : 16.0 ft. Groundwater Elev. :NA

	Pro	ject No: 101722001	Sampling Method RETTEW Rep.	: Direct Push, 5-Foot : S. Houser	Interval		lwater Elev . : N lwater Time : N			
Depth in Feet	Surf. Elev. 0	DES	CRIPTION		nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
0-		0.0-1.0'; ASPHALT and BALLAS	ST STONE					19	1.0	
- "	1	1.0-5.0'; SANDY SILT, grayish-bairknife fill	rown, dry, micaceou	s, reworked					1.3	
-	2 3				ML				2.9	
4-					IVIL				3.1	
5-						HILL I NO OLIVE			3.4	
6-		5.0-9.0'; SILTY SAND, grayish-b	rown, dry to moist, m	nicaceous				Si .	3.5	
7-	7				SM		SB-22 @ 7 ft.	8	4.7	
8-	8								3.1	
9-	9	9.0-16.0'; Completely decompos	ed micaceous SCHI	ST.					1.1	
10 -	10	brownish-gray, moist		9001000 4 00		0 0 0			1.0	
11-	11								0.5	
12-	12				GM				0.5	
13 -	13				CIVI	0 0 0 0				
14 —	14					0 0 0 0				
14 — 15 — 16 —	15									
16 — -	16	16.0-20.0'; Weathered SCHIST feet.	bedrock, brownish-gi	ray, wet at 16					<1.0	
17 –	17									
-	18									
-	19 20						SB-22 @ 19 ft.			
20 — - 21 —	-20	20.0'; End of Boring								
	L									



(Page 1 of 1)

Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania Project No: 101722001

07-29-2015 H.NProjects\10172\101722001\GS\Boring Logs\SB-23.bor

Date Completed Boring Diameter Drilling Method

: 06/12/2015 : 2-inch

: Track Mounted Geoprobe : Direct Push, 5-Foot Interval

Surface Elev. :NA Datum :NA

Groundwater Meas. : NA Groundwater Elev. :NA

		ngnam, Pennsylvania nject No: 101722001	Sampling Method RETTEW Rep.	: Track Mounted Geo : Direct Push, 5-Foot : S. Houser		Ground	dwater Elev. : N	NA NA		
Depth in Feet	Surf. Elev. 0	DES	SCRIPTION		nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
0-	- 0	0.0-1.0'; ASPHALT and BALLA	ST STONE				-			*
1- 2-	1 2	1.0-5.0'; SANDY SILT, grayish-l airknife fill, minimal recovery	prown, dry, micaceou	us, reworked					NA NA	
3-4-	3 4				ML					
5 — - 6 —		5.0-10.0'; SILTY SAND, brown,	dry, micaceous, petr	oleum odor					610	
7-									785	
8-					SM				1435	
9-							SB-23 @ 8 ft.		1205	
10-									910	
10-		10.0-15.0'; Completely decompo grayish-brown, moist, slight petr	osed micaceous SCI roleum odor	HIST,					1035	
_									610	
-	12								80	
-	13								42	
14 —						数数数数数数数数数数数数数数数数数数数数数数数数数数数数数数数数数数数数数数	SB-23 @ 15 ft.	-	29	
15 — -	15	15.0'; End of Boring			ı	区之(S)之(A)		1	I	
16 —										



(Page 1 of 1)

Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania

07-29-2015 H.\Projects\10172\101722001\GS\Boring Logs\SB-24.bor

Date Completed **Boring Diameter**

: 2-inch **Drilling Method** : Track Mounted Geoprobe

: 06/12/2015

Surface Elev. :NA Datum :NA

Groundwater Meas. : 16.0 ft.

	Pro	ject No: 101722001	Sampling Method RETTEW Rep.	: Direct Push, 5-Foot : S. Houser	Secretaria de la composición del composición de la composición del composición de la composición de la composición de la composición del composición de la composición de la composición de la composición de la composición de la composición del composición del composición del composición del composición del composición del composición del composición del composición del composición del com	Ground	dwater Elev. : N			
Depth in Feet	Surf. Elev. 0	DES	SCRIPTION		nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
0-	- 0	0.0-1.0'; ASPHALT and BALLAS	ST STONE					9	25	*
3-4-	1 2 3 4	1.0-5.0'; SILTY SAND, grayish-t reworked airknife fill	prown, dry, loose, mie	caceous,	SM				<2.4	
5-	5	5.0-11.0'; SANDY SILT with clay petroleum odor	y, grayish-brown, dry	, micaceous,					10.1	
6-	6	al Production and Productive Production Control of Cont							25.2	
7-	7								35.4	
8-	8				ML				115.3	
9-	9						SB-24 @ 10 ft.	i)	325.6	
10 —	10							ę.	287.1	
11 -	11	11.0-20.0'; Completely decompo	osed micaceous SCF	HIST,					114.0	
12-	12	brownish-gray, moist to wet (16.	u')			数数 数数数			105.1	
13 —	13								107.8	
14 —	14								91.9	
15 —	15								X50x400+2549027	
16 —	16								41.2	
17 —	17								11.7	
18 —	18								8.5	
14— 15— 16— 17— 18— 19— 20—	19							E	7.1	
20 —	20	20.0'; End of Boring		96		が終め	SB-24 @ 19 ft.		8.0	
21 —		25.5 , End of Boiling								



(Page 1 of 1)

:NA

Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania Project No: 101722001

07-29-2015 H.\Projects\10172\101722001\GS\Boring Logs\SB-25.bor

Date Completed Boring Diameter Drilling Method : 06/12/2015 : 2-inch

: Track Mounted Geoprobe : Direct Push, 5-Foot Interva Datum : NA
Groundwater Meas. : NA

Surface Elev.

	Pro	ject No: 101722001	Sampling Method RETTEW Rep.	: Direct Push, 5-Foot : S. Houser	Interval			NA NA		
Depth in Feet	Surf. Elev. 0	DES	CRIPTION		nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
0 - 1 -		0.0-1.0'; ASPHALT and BALLAS 1.0-5.0'; SANDY SILT, gray, mo		orked airknife fill	,				NA	
-	2 3				ML				7.5	
-	4 5								12.1	
-	6	5.0-14.0'; SANDY SILT, grayish	-brown, moist, micac	ceous					11.7	
-	7 8						CD 25 @ 04	_	13.0	
9 –	9 10				ML		SB-25 @ 9 ft.		13.9	
	11 12								11.8	
	13								9.5	
-	14 15	14.0-15.0'; Completely decompo grayish-brown, moist 15.0'; End of Boring	osed micaceous SCI	HIST,			SB-25 @ 15 ft.		9.5	
16 –		10.0 , End of builing								



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:NA

:NA

Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania

Date Completed **Boring Diameter**

: 06/12/2015 : 2-inch **Drilling Method**

: Track Mounted Geoprobe

Groundwater Meas.

Surface Elev.

Datum

: NA

77		Pro	oject No: 101722001	Sampling Method RETTEW Rep.	: Direct Push, 5-Foot : S. Houser		Ground	dwater Elev. :	NA NA	T	,
	Depth in Feet	Surf. Elev. 0	DES	SCRIPTION		nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
	0-	0	0.0-1.0'; ASPHALT and BALLA	ST STONE						1.1	
	1-	-1	1.0-7.0'; SILTY SAND, gray, dry	, micaceous, loose						3.7	
	2-	2								2	
	3-	- 3								4.5	
	4 –	- 4				SM				3.7	
	5 -	- 5								6.7	
	- 6-	6								NA	
	-	7									
		-	7.0-15.0'; Completely decompos grayish-brown, slightly moist	sed micaceous SCHIS	ST,					10.5	
	-	- 8								11.1	
	9 –	- -9 -						SB-26 @ 10 ft.		13.3	
B-26.bor	10 -	-10								11.7	
ing Logs\S	11 – -	-11					線線			10.4	
01/GS/Bor	12-	12								10.1	
2\1017220	13 –	13									
ects\1017;	14 –	- 14							ļ	9.5	
07-29-2015 HNProjects/10172V101722001/GS/Boring Logs/SB-26.	15 -	-15	15.0'; End of Boring				NAXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	SB-26 @ 15 ft.		8.9	
07-29-20	16 –	-	, <u></u>								



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:NA

Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania Project No: 101722001 Date Completed Boring Diameter : 06/12/2015 : 2-inch

Drilling Method : Track Mounted Geoprobe
Sampling Method : Direct Push, 5-Foot Interva

Datum : NA
Groundwater Meas. : 18.0 ft.
Groundwater Elev. : NA

Surface Elev.

	Pro	ject No: 101722001	Sampling Method RETTEW Rep.	: Direct Push, 5-Foot : S. Houser	Interval			IA IA		
Depth in Feet	Surf. Elev. 0	DE.	SCRIPTION		nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
0-	0	0-0.5'; CONCRETE and BALL 0.5-5.0'; SANDY SILT with clay		uhtly moist				V	3.5	
-	1	loose, micaceous	, orangion brown, one	may moot,					6.1	
=	2				ML				11.4	
3-	3								12.7	
4-	4								14.3	
-	5	5.0-9.0'; SANDY SILT with clay micaceous, petroleum odor	v, brown, slightly mois	t, loose,					24.4	
-	6				***				75.3	
0 <u>22</u>	-7				ML				121.5	
i .	8						SB-27 @ 9 ft.		1103	
Y-007	9	9.0-18.0'; Completely decomposlight petroleum odor	osed micaceous SCHI	ST, brown, dry,					985.4	
<u> </u>	-10								92.6	
	-11								41.5	
-	-12								25.4	
·	13								23.2	
	14					が変数			19.5	
_	-15								11.9	
-	16 								8.7	
=	17					が設定を対象を対象を対象を対象を対象を対象を対象を対象を対象を対象を対象を対象を対象を			7.1	
_	18 19	18.0-20.0'; Weathered SCHIST	bedrock, grayish-bro	wn, wet		建设		10	7.5	
							SB-27 @ 20 ft.		8.1	
=	-20	20.0'; End of Boring		SA.				Ž. U		
21 –										

07-29-2015 H:\Projects\10172\101722001\GS\Boring Logs\SB-27.bor



(Page 1 of 1)

:NA

Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania

Date Completed Boring Diameter : 06/12/2015 : 2-inch

Datum :NA Groundwater Meas

Surface Elev.

RETTEW Rep. : S. Houser Groundwater Time : NA	Α	
Depth in Feet of Sample Name	Sample Time PID (ppm)	Recovery (%)
0-0.5'; CONCRETE and BALLAST STONE 0.5-5.0'; SANDY SILT, orangish-brown, dry, loose, micaceous	2.1	
1 — -1 0.5-5.0 , SANDY SIET, Grangisti-blown, dry, loose, micaceous	4.1	
2 + -2	5.2	
3 3 ML ML		
	4.7	
55	4.9	
5.0-9.0'; SANDY SILT, brown, dry, loose, micaceous	7.8	
	10.1	
7 7 ML	15.2	
8 + -8	16.4	
9 -9 9.0-19.0'; Completely decomposed micaceous SCHIST, brown,	17.1	
1010 slightly moist	19.2	
SB-28 @ 11 ft.	2	
1212	14.3	
13 - 1 - 13	11.9	
14 — -14	9.8	
	8.5	
	8.8	
	8.1	
17 — -17	7.4	
18 — -18	2000, 100,000	
14 — -14 15 — -15 16 — -16 17 — -17 18 — -18 19 — -19 20 — -20 20.0'; End of Boring	7.2	
SB-28 @ 20 ft.	7.0	
20 20.0'; End of Boring		

07-29-2015 H.\Projects\10172\101722001\GS\Boring Logs\SB-28.bor



(Page 1 of 1)

Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania

Date Completed **Boring Diameter**

: 06/12/2015 : 2-inch

Surface Elev.

Datum

:NA :NA : 19.0 ft.

	Notti	ngham, Pennsylvania oject No: 101722001	Drilling Method Sampling Method RETTEW Rep.	: Z-Inch : Track Mounted Geo : Direct Push, 5-Foot : S. Houser	Deligo Contractor Contractor	Ground	dwater Meas. : 1 dwater Elev . : 1	19.0 ft. NA NA		
Depth in Feet	Surf. Elev. 0	D	ESCRIPTION		nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
0 –	0	0-0.5'; CONCRETE and BAL	THE CONTRACTOR OF THE PROPERTY			EW box box box box			38.5	
1 –	1	0.5-5.0'; SILTY SAND, browr petroleum odor	ı, slightly moist, loose, n	nicaceous,					0.00000	
2-	2								105.3	
3-	3				SM		SB-29 @ 3 ft.		385.2	
-									298.4	
4 -	-4								187.4	
5 -	5	5.0-11.0'; SANDY SILT with of micaceous, slight petroleum	clay, gray, slightly moist	, loose,					92.1	
6-	6	micaccous, siight petroreum	odoi						77.4	
7 –	-7								822748	
- 8 –	8				ML				61.3	
- 0_	9								31.5	
13-									24.9	
10 –	-10								15.4	
11 –	11	11.0-19.0'; Completely decor	nposed micaceous SCI	HIST,		分数分数			12.3	
12-	12	grayish-brown, dry, slight pet	roleum odor							
13 –	13								13.5	
11 _	14								14.1	
									12.7	
15 – -	15					· · · · · · · · · · · · · ·			13.9	
16-	16					が設定			13.6	
17 –	17							1		
- 18 –	18						SB-29 @ 18 ft.	-0	13.7	
- 19 –	19					対数数数			12.8	
lo.		19.0-20.0'; Weathered SCHI	ST bedrock, grayish-bro	wn, wet					13.1	
20 –	20	20.0'; End of Boring		**		EN 2021 2031	987			
21 –										

07-29-2015 H.\Projects\10172\101722001\GS\Boring Logs\SB-29.bor



(Page 1 of 1)

Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania

07-29-2015 H.\Projects\10172\101722001\GS\Boring Logs\SB-30.bor

Date Completed **Boring Diameter Drilling Method**

: 06/12/2015 : 2-inch

: Track Mounted Geoprobe

Surface Elev. :NA Datum :NA

Groundwater Meas. : 18.0 ft.

Project No: 101722001			Sampling Method : Direct Push, 5-Foot Interval RETTEW Rep. : S. Houser			Groundwater Heas : NA Groundwater Time : NA				
Depth in Feet	Surf. Elev. 0	DES	CRIPTION		nscs	GRAPHIC	Sample Name	Sample Time	PID (ppm)	Recovery (%)
_	1	0-8.0'; SILTY SAND with gravel, micaceous, reworked airknife fill					NA			
=	2								13.7	
_	3								16.1	
	4 5								17.5	
-	6							19.3		
	7							8	85.5	
9 <u>22</u>	8			0011107			SB-30 @ 8 ft.		94.1	
-	9	8.0-18.0'; Completely decompos grayish-brown, dry	i					61.0		
10 —	10								43.5	
11 –	11								30.5	
12-	12								25.7	
13 —	13								23.9	
14 —	14								21.4	
15 –	15								20.0	
16-	16								18.5	
14 — 15 — 16 — 17 — 18 — 19 — 20 —	17								11.3	
18 —	18	18.0-20.0'; Weathered SCHIST	bedrock, grayish-brown	, wet					9.5	
19-	19		0 5 -				CD 20 @ 20 #	ā	8.0	
20 –	20	20.0'; End of Boring				線線線	SB-30 @ 20 ft.		3.7	
21-										



Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania

RETTEW Project No. 101722001

03-24-2015 H:\Projects\10172\101722001\GS\Boring Logs\MW-1.bor

Date Drilled : 2/24/15

Equipment : IR T4, Air Rotary

Driller : Eichelbergers, Inc./T. Dockey

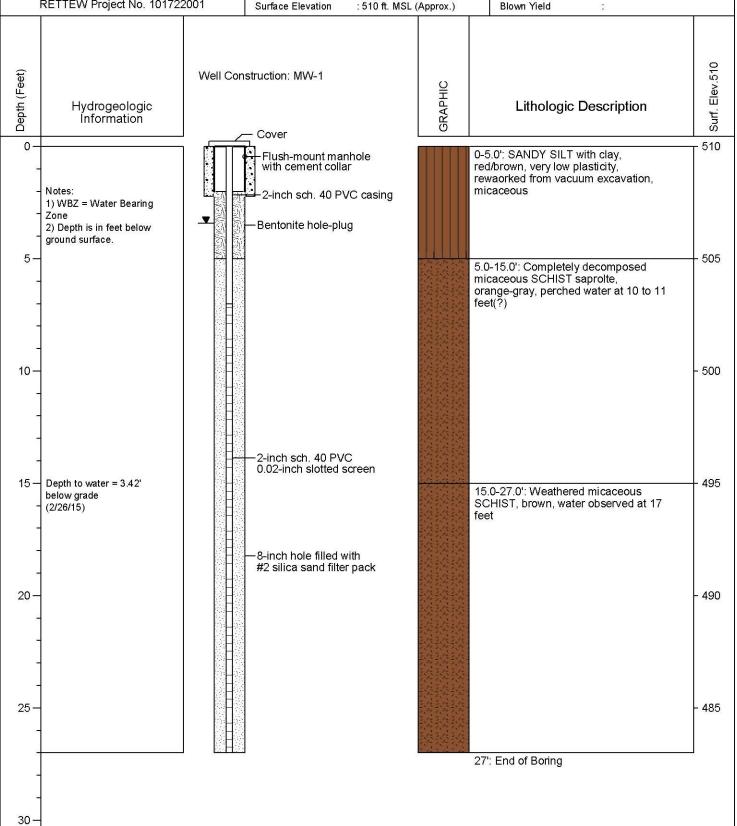
Logged By : E. Dziedzic

Surface Elevation : 510 ft. MSL (Approx.) Latitude/Longitude

Township/County : Lower Oxford / Chester

Total Depth : 27 ft. bg

: 2-inch PVC Screen Diameter





Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania

RETTEW Project No. 101722001

03-24-2015 H:\Projects\10172\101722001\GS\Boring Logs\MW-2.bor

30

Date Drilled : 2/25/15

Equipment : IR T4, Air Rotary

Driller : Eichelbergers, Inc./T. Dockey

Logged By : E. Dziedzic

Surface Elevation : 510 ft. MSL (Approx.)

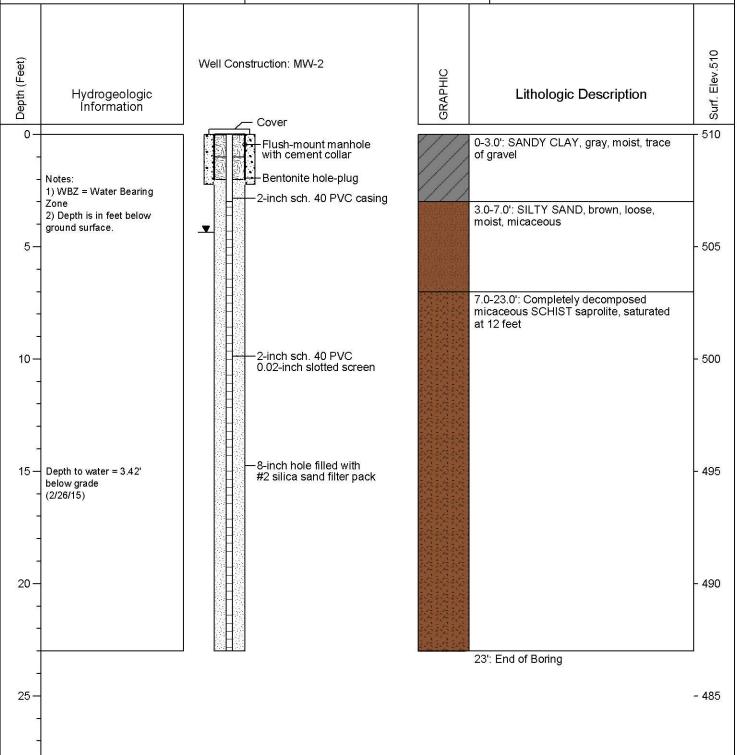
Latitude/Longitude

Township/County : Lower Oxford / Chester

Total Depth : 23 ft. bg

Diameter : 2-inch PVC Screen

Blown Yield :





Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania

RETTEW Project No. 101722001

Date Drilled : 2/25/15

Equipment : IR T4, Air Rotary

Driller : Eichelbergers, Inc./T. Dockey

Logged By : E. Dziedzic

Surface Elevation : 510 ft. MSL (Approx.)

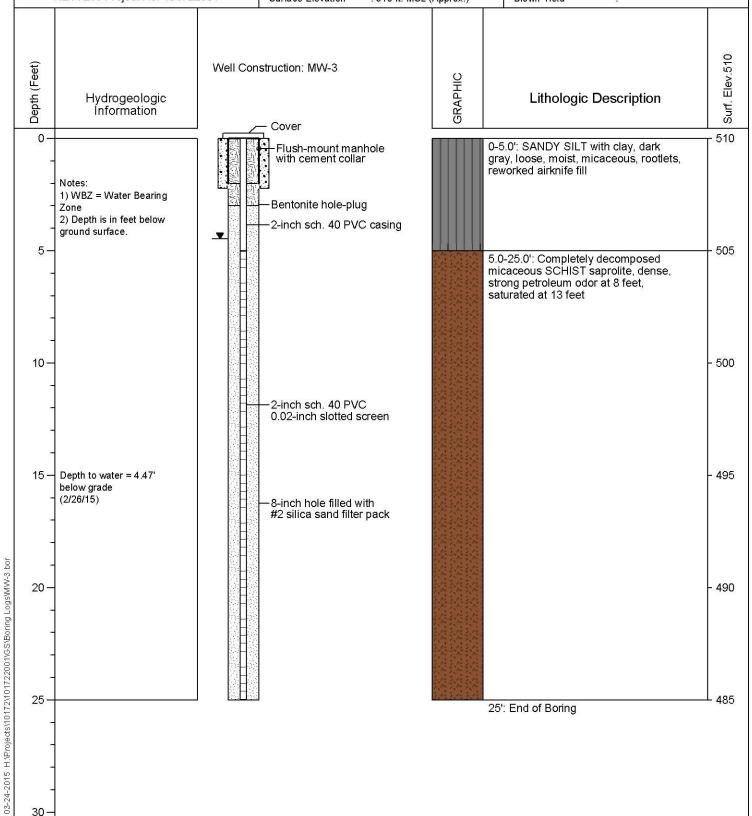
Latitude/Longitude

Township/County : Lower Oxford / Chester

Total Depth : 25 ft. bg

Diameter : 2-inch PVC Screen

Blown Yield :





Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania

RETTEW Project No. 101722001

03-24-2015 H:\Projects\10172\101722001\GS\Boring Logs\MW-4.bor

30

Date Drilled : 2/26/15

Equipment : IR T4, Air Rotary

Driller : Eichelbergers, Inc./T. Dockey

Logged By : E. Dziedzic

Surface Elevation : 510 ft. MSL (Approx.)

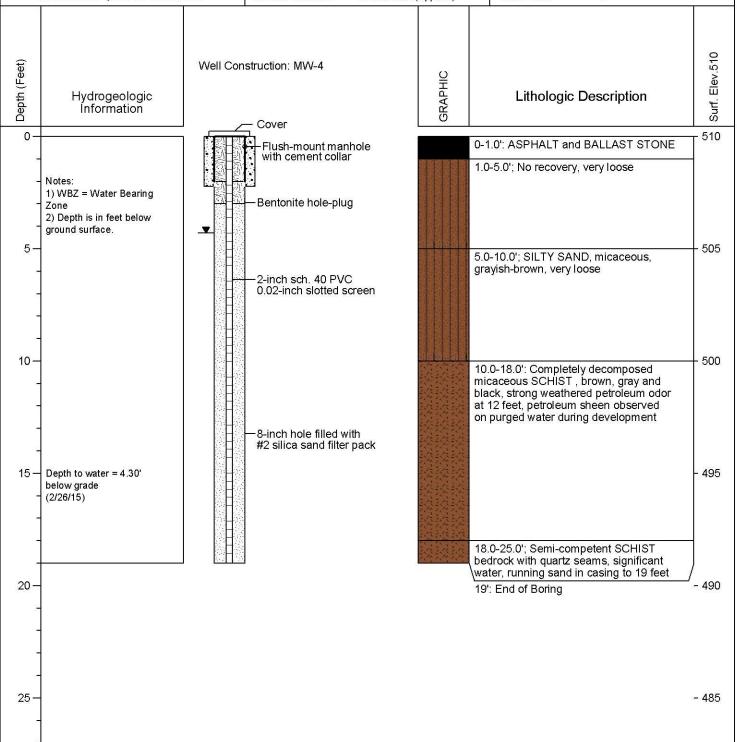
Latitude/Longitude

Township/County : Lower Oxford / Chester

Total Depth : 19 ft. bg

Diameter : 2-inch PVC Screen

Blown Yield :





Herr Foods, Inc. 273 Old Baltimore Pike Nottingham, Pennsylvania

RETTEW Project No. 101722001

Date Drilled : 2/26/15

Equipment : IR T4, Air Rotary

Driller : Eichelbergers, Inc./T. Dockey

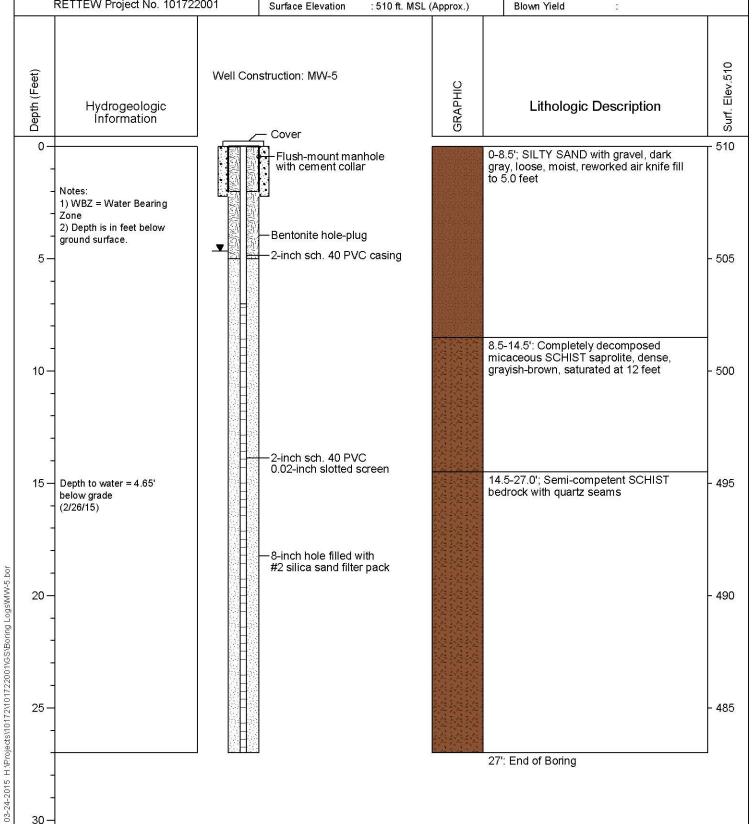
Logged By : E. Dziedzic

Surface Elevation : 510 ft. MSL (Approx.) Latitude/Longitude

Township/County : Lower Oxford / Chester

Total Depth : 27 ft. bg

: 2-inch PVC Screen Diameter





(Page 1 of 1)

: 20 ft. bg

Herr Foods, Inc. 273 Old Baltimore Pike Notthingham, Pennsylvania Rettew Project #: 101722001

25

Dates Drilled/Installed: 06/18/2015 **Drilling Methods**

: Air Rotary : Eichelbergers, Inc. Latitude/Longitude Township/County Total Depth

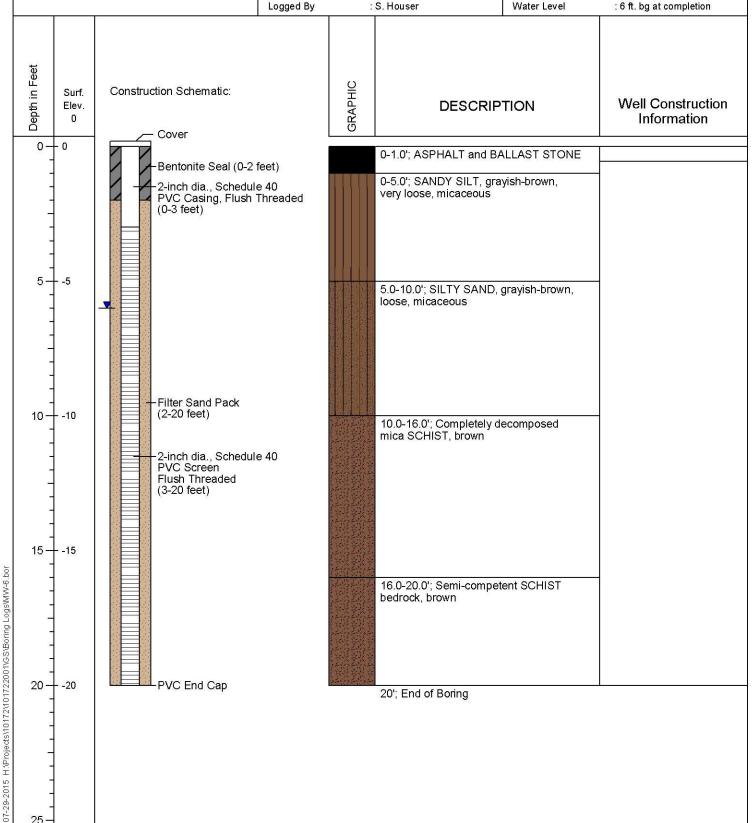
: W.Nottingham Twp./Chester

Driller Surface Elevation

: 'MSL (Approx.)

Diameter Water Level

: 2-Inch PVC : 6 ft. bg at completion





(Page 1 of 1)

: 20 ft. bg

Herr Foods, Inc. 273 Old Baltimore Pike Notthingham, Pennsylvania Rettew Project #: 101722001

25

Dates Drilled/Installed: 06/18/2015 **Drilling Methods**

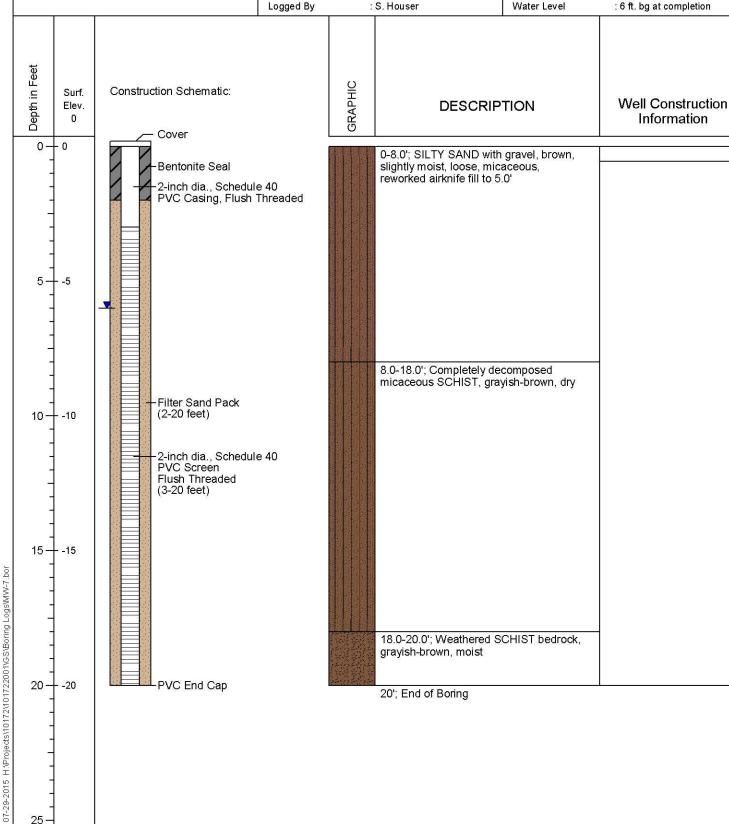
: Air Rotary : Eichelbergers, Inc. Latitude/Longitude Township/County Total Depth

: W.NottinghamTwp./Chester

Driller Surface Elevation

: 'MSL (Approx.)

Diameter Water Level : 2-Inch PVC : 6 ft. bg at completion





(Page 1 of 1)

: 20 ft. bg

Herr Foods, Inc. 273 Old Baltimore Pike Notthingham, Pennsylvania Rettew Project #: 101722001

20-+ -20

25

-PVC End Cap

Dates Drilled/Installed: 06/18/2015 **Drilling Methods**

: Air Rotary : Eichelbergers, Inc. Latitude/Longitude Township/County Total Depth

: W.NottinghamTwp./Chester

Well Construction

Information

Driller Surface Elevation

: 'MSL (Approx.)

Diameter

: 2-Inch PVC : 9 ft. bg at completion

Logged By : S. Houser Water Level Depth in Feet GRAPHIC Construction Schematic: Surf. Elev. DESCRIPTION 0 Cover 0 0 0-1.0'; ASPHALT and BALLAST STONE Bentonite Seal (0-2 feet) 1.0-9.0'; SILTY SAND, grayish-brown, -2-inch dia., Schedule 40 PVC Casing, Flush Threaded (0-3 feet) very loose, micaceous -5 9.0-16.0'; Completely decomposed mica Filter Sand Pack SCHIST, brown 10 + -10 (2-20 feet) 2-inch dia., Schedule 40 PVC Screen Flush Threaded (3-20 feet) 15 -15 07-29-2015 H:\Projects\10172\101722001\GS\Boring Logs\MW-8.bor 16.0-20.0'; Semi-competent SCHIST bedrock, brown

20'; End of Boring



(Page 1 of 1)

Herr Foods, Inc. 273 Old Baltimore Pike Notthingham, Pennsylvania Rettew Project #: 101722001

07-29-2015 H:\Projects\10172\101722001\GS\Boring Logs\MW-9.bor

25

Dates Drilled/Installed: 06/18/2015

Surface Elevation

Driller

Drilling Methods : Air Rotary

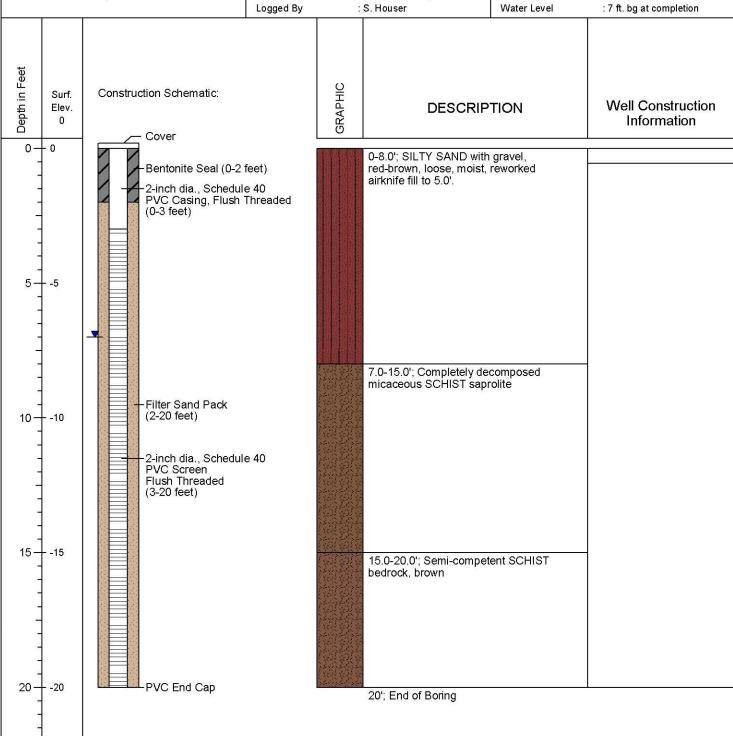
: Eichelbergers, Inc. : 'MSL (Approx.)

Latitude/Longitude

Township/County : W.NottinghamTwp./Chester

Total Depth : 20 ft. bg : 2-Inch PVC Diameter

: 7 ft. bg at completion Water Level





(Page 1 of 1)

: 20 ft. bg

Herr Foods, Inc. 273 Old Baltimore Pike Notthingham, Pennsylvania Rettew Project #: 101722001

25

Dates Drilled/Installed: 06/18/2015 **Drilling Methods**

: Air Rotary

Latitude/Longitude Township/County

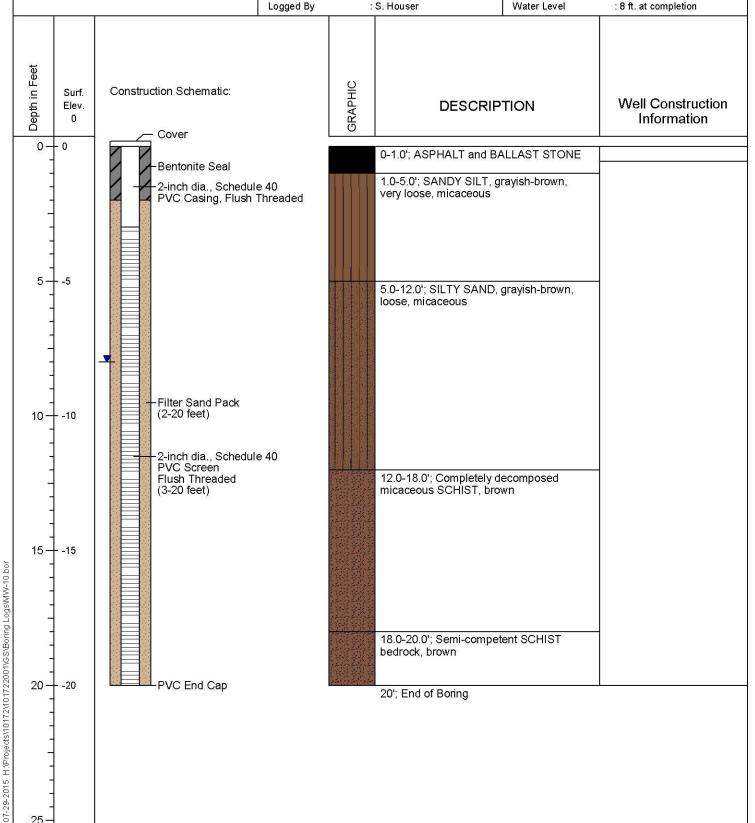
Total Depth

: W.NottinghamTwp./Chester

Driller

: Eichelbergers, Inc. Surface Elevation : 'MSL (Approx.)

Diameter Water Level : 2-Inch PVC : 8 ft. at completion





(Page 1 of 1)

Herr Foods, Inc. 273 Old Baltimore Pike Notthingham, Pennsylvania Rettew Project #: 101722001 Dates Drilled/Installed Drilling Methods

Surface Elevation

Driller

: 12/16/15 : Air Rotary; 6-inch roller-bit : Eichelbergers, Inc.

: 498.65' MSL

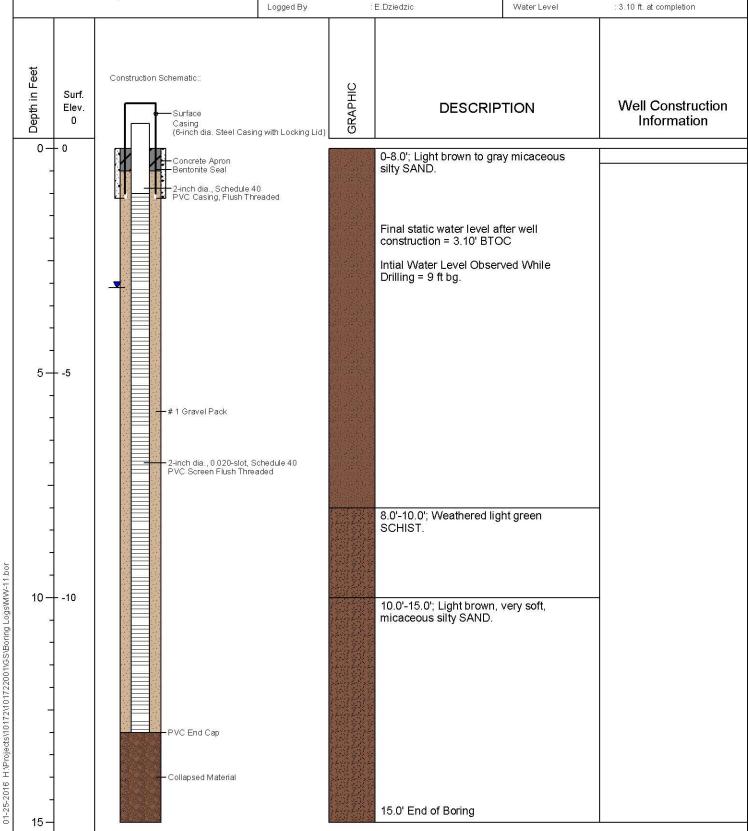
Latitude/Longitude

Township/County

: W.NottinghamTwp./Chester

Total Depth : 15 ft. bg

Diameter : 2-Inch PVC in 6-inch borehole





(Page 1 of 1)

Herr Foods, Inc. 273 Old Baltimore Pike Notthingham, Pennsylvania Rettew Project #: 101722001

15

Dates Drilled/Installed Drilling Methods Driller

Surface Elevation

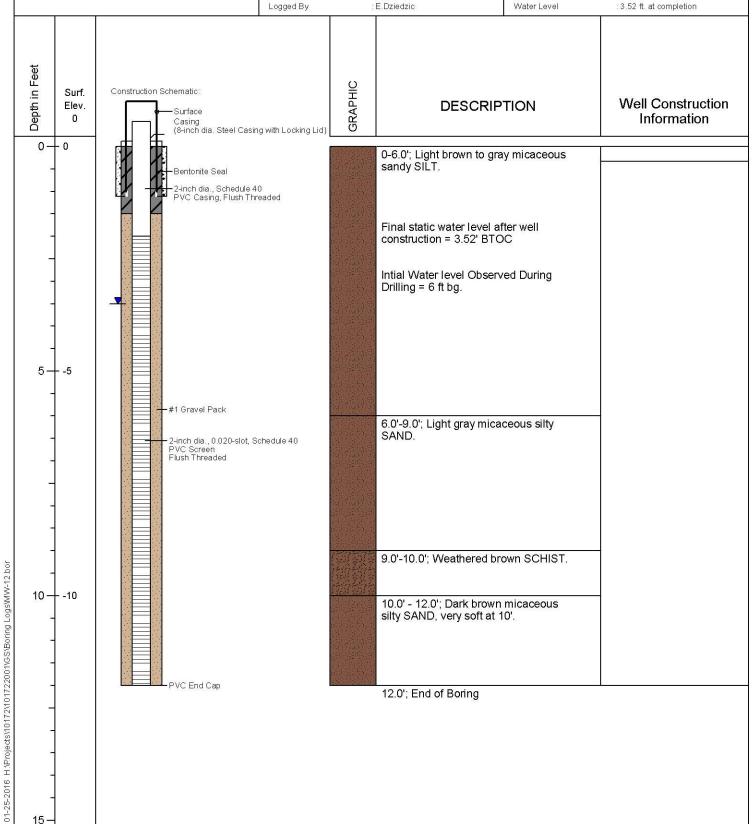
: 12/16/15 : Air Rotary; 6-inch roller-bit : Eichelbergers, Inc. : 487.11' MSL

Latitude/Longitude Township/County Total Depth

: W.NottinghamTwp./Chester

: 12 ft. bg

Diameter : 2-Inch PVC in 6-inch borehole : 3.52 ft. at completion





(Page 1 of 1)

Herr Foods, Inc. 273 Old Baltimore Pike Notthingham, Pennsylvania Rettew Project #: 101722001

15

Dates Drilled/Installed Drilling Methods Driller

Surface Elevation

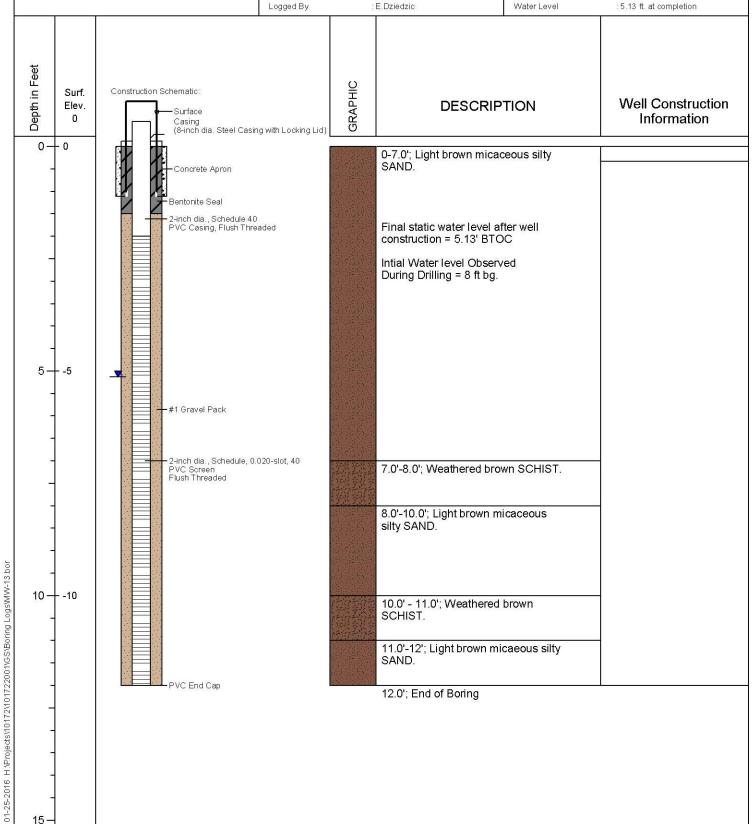
: 12/16/15 : Air Rotary; 6-inch roller-bit : Eichelbergers, Inc. : 484.28' MSL

Latitude/Longitude Township/County Total Depth

: W.NottinghamTwp./Chester

: 12 ft. bg

Diameter : 2-Inch PVC in 6-inch borehole Water Level : 5.13 ft. at completion





MONITORING WELL LOG: SG-1

Herr Foods, Inc. 273 Old Baltimore Pike Notthingham, Pennsylvania Project #: 101722001
 Date Drilled
 : 2/29/16

 Equipment
 : Geoprobe

 Driller
 : Odyssey

 Logged By
 : E. Dziedzic

Surface Elevation

: 513 ft. MSL (Approx.)

Latitude/Longitude Township/County

: W. Nottingham Twp /Chester

Surf.

Elev. 513

513

Total Depth : 3.5 ft. bgs
Diameter : 2-inch boring

Target Depth Reached at 3.5 ft bgs

Depth (Feet) Well Construction: SG-1 GRAPHIC Hydrogeologic Information Lithologic Description Cover 0. 0'-0.7': CONRETE SLAB Flush-mount manhole with cement collar 0.7'-1.0': CRUSHED STONE - subbase SILTY SAND, micaeous, tan Bentonite hole-plug pellets Notes: 3/8-inch Teflon Tubing 1) Depth is in feet below ground surface. Screened Soil Gas Implant -2-inch hole filled with #2 silica sand filter pack

5 –



MONITORING WELL LOG: SG-2

Herr Foods, Inc. 273 Old Baltimore Pike Notthingham, Pennsylvania Project #: 101722001

3.

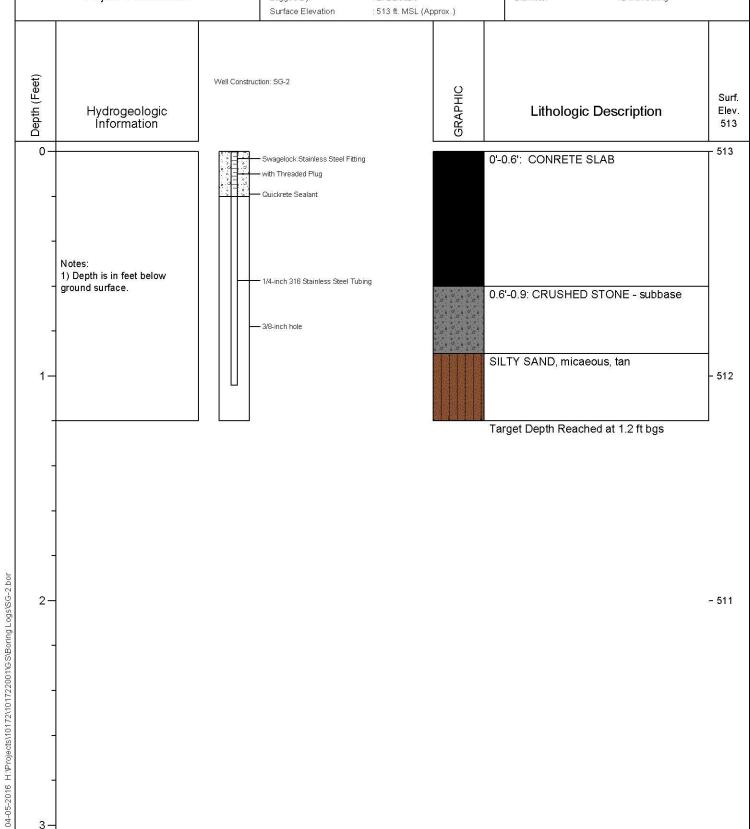
Date Drilled : 3/25/16

Equipment : 3/4-inch Drive Hammer Drill

Driller Odyssey Logged By : E. Dziedzic Latitude/Longitude

Township/County : W. Nottingham Twp /Chester

Total Depth : 1.2 ft. bgs Diameter : 2-inch boring





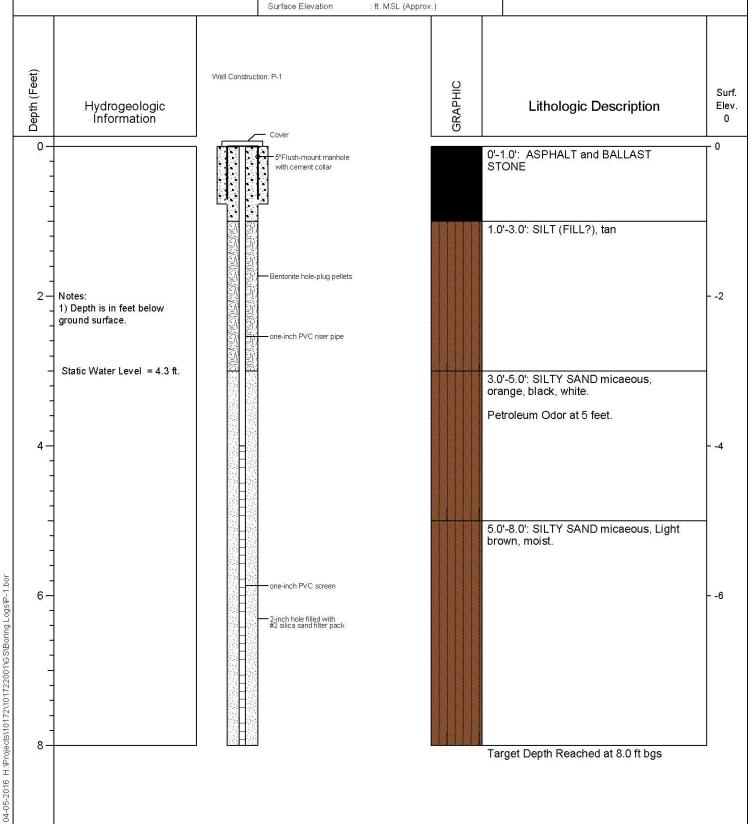
MONITORING WELL LOG: P-1

Diameter

Herr Foods, Inc. 273 Old Baltimore Pike Notthingham, Pennsylvania Project #: 101722001 Date Drilled : 3/25/16
Equipment : Geoprobe
Driller : Odyssey
Logged By : E. Dziedzic

Latitude/Longitude :
Township/County ; W. Nottingham Twp /Chester
Total Depth : 8.0 ft. bgs

: 2-inch boring



APPENDIX D Soil Sample Laboratory Analytical Reports

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

October 27, 2014

Project: Project 101722001

Submittal Date: 10/16/2014 Group Number: 1511613 PO Number: 101722001 State of Sample Origin: PA

Client Sample Description	<u>Lancaster Labs (LL) #</u>
SB-5 @ 18 Ft Soil	7640183
SB-6 @ 10 Ft Soil	7640184
SB-7 @ 8 Ft Soil	7640185
SB-8 @ 7 Ft Soil	7640186
SB-2 @ 16 Ft Soil	7640187
SB-3 @ 12 Ft Soil	7640188
SB-4 @ 11 Ft Soil	7640189
SB-9 @ 10 Ft Soil	7640190
SB-10 @ 5 Ft Soil	7 640191
SB-1 Soil	7640192
Supply Well Water	7640193
Trip Blank Water	7640194

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO

Rettew Associates

Attn: Ed Dziedzic



Analysis Report

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Respectfully Submitted,

Luz I. Garcia

(717) 556-7262



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-5 @ 18 Ft Soil

101722001

LL Sample # SW 7640183 LL Group # 1511613 Account # 00721

Project Name: Project 101722001

Collected: 10/16/2014 09:30 by ED

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 10/16/2014 18:05

Reported: 10/27/2014 12:36

20015

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg	ug/kg	
10237	Benzene		71-43-2	N.D.	26	46.9
10237	Naphthalene		91-20-3	N.D.	51	46.9
GC/MS	Semivolatiles	SW-846	8270C	ug/kg	ug/kg	
10724	Anthracene		120-12-7	N.D.	4	1
10724	Benzo(a)anthracene		56-55-3	N.D.	4	1
10724	Benzo(a)pyrene		50-32-8	N.D.	4	1
10724	Benzo(b)fluoranthene	=	205-99-2	N.D.	4	1
10724	Benzo(g,h,i)perylene	=	191-24-2	N.D.	4	1
10724	Chrysene		218-01-9	N.D.	4	1
10724	Fluorene		86-73-7	N.D.	4	1
10724	Phenanthrene		85-01-8	N.D.	4	1
10724	Pyrene		129-00-0	N.D.	4	1
Wet Cl	nemistry	SM 2540	G-1997	8	%	
00111	Moisture		n.a.	8.2	0.50	1
	Moisture represents	the loss	in weight of the	sample after over	n drying at	

103 - 105 degrees Celsius. The moisture result reported is on an

as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/15.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Benzene, Naphthalene	SW-846 8260B	1	Q142941AA	10/21/2014 19:	31 Sarah A Guill	46.9
07579	GC/MS-5g Field	SW-846 5035A	1	201428935895	10/16/2014 09:	30 Client Supplied	1
	Preserv.MeOH-NC						
10724	PAH 8270 (microwave)	SW-846 8270C	1	14293SLF026	10/22/2014 11:.	32 Joseph M Gambler	1
10814	BNA Soil Microwave PAH	SW-846 3546	1	14293SLF026	10/21/2014 09:	30 David S Schrum	1
00111	Moisture	SM 2540 G-1997	1	14294820005A	10/21/2014 20:	2 Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-6 @ 10 Ft Soil

101722001

LL Sample # SW 7640184 LL Group # 1511613 Account # 00721

Project Name: Project 101722001

Collected: 10/16/2014 13:30 by ED

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 10/16/2014 18:05 Reported: 10/27/2014 12:36

20016

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg		ug/kg	
10237	Benzene		71-43-2	120	J	25	41.88
10237	Naphthalene		91-20-3	1,500		51	41.88
GC/MS	Semivolatiles	SW-846	8270C	ug/kg		ug/kg	
10724	Anthracene		120-12-7	N.D.		4	1
10724	Benzo(a)anthracene		56-55-3	N.D.		4	1
10724	Benzo(a)pyrene		50-32-8	N.D.		4	1
10724	Benzo(b)fluoranthene	=	205-99-2	N.D.		4	1
10724	Benzo(g,h,i)perylene	=	191-24-2	N.D.		4	1
10724	Chrysene		218-01-9	N.D.		4	1
10724	Fluorene		86-73-7	7	J	4	1
10724	Phenanthrene		85-01-8	11	J	4	1
10724	Pyrene		129-00-0	5	J	4	1
Wet Cl	nemistry	SM 2540	G-1997	%		%	
00111	Moisture		n.a.	17.1		0.50	1
	Moisture represents	the loce	in weight of the	cample af	ter oven drying at	-	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an

as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/15.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory	Sample	Analysis	Record
наротасоту	Sambre	THEFT	KECOLU

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Benzene, Naphthalene	SW-846 8260B	1	Q142941AA	10/21/2014 19:54	Sarah A Guill	41.88
07579	GC/MS-5g Field	SW-846 5035A	1	201428935895	10/16/2014 13:30	Client Supplied	1
	Preserv.MeOH-NC						
10724	PAH 8270 (microwave)	SW-846 8270C	1	14293SLF026	10/22/2014 13:11	Joseph M Gambler	1
10814	BNA Soil Microwave PAH	SW-846 3546	1	14293SLF026	10/21/2014 09:30	David S Schrum	1
00111	Moisture	SM 2540 G-1997	1	14294820005A	10/21/2014 20:12	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-7 @ 8 Ft Soil

101722001

LL Sample # SW 7640185 LL Group # 1511613 Account # 00721

Project Name: Project 101722001

Collected: 10/16/2014 13:00 by ED

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 10/16/2014 18:05 Reported: 10/27/2014 12:36

20017

CAT No.	Analysis Name		CAS Number	Dry Result	=	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg		ug/kg	
10237	Benzene		71-43-2	22,000	0	110	168.92
10237	Naphthalene		91-20-3	18,000)	210	168.92
GC/MS	Semivolatiles	SW-846	8270C	ug/kg		ug/kg	
10724	Anthracene		120-12-7	29		4	1
10724	Benzo(a)anthracene		56-55-3	10	J	4	1
10724	Benzo(a)pyrene		50-32-8	6	J	4	1
10724	Benzo(b)fluoranthen	e	205-99-2	N.D.		4	1
10724	Benzo(g,h,i)perylen	e	191-24-2	8	J	4	1
10724	Chrysene		218-01-9	11	J	4	1
10724	Fluorene		86-73-7	92		4	1
10724	Phenanthrene		85-01-8	150		4	1
10724	Pyrene		129-00-0	49		4	1
Wet Cl	nemistry	SM 254	G-1997	%		%	
00111	Moisture		n.a.	20.7		0.50	1
	Moisture represents	the loss	in weight of the	sample a	after oven drying at	5	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an

as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/15.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory	Sample	Analweie	Record
Laboratory	Sampre	WIIGTARTR	Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Benzene, Naphthalene	SW-846 8260B	1	Q142951AA	10/22/2014 13	7:25 Sarah A Guill	168.92
07579	GC/MS-5g Field	SW-846 5035A	1	201428935895	10/16/2014 13	3:00 Client Supplied	1
	Preserv.MeOH-NC						
10724	PAH 8270 (microwave)	SW-846 8270C	1	14293SLF026	10/22/2014 13	3:37 Joseph M Gambler	1
10814	BNA Soil Microwave PAH	SW-846 3546	1	14293SLF026	10/21/2014 09	9:30 David S Schrum	1
00111	Moisture	SM 2540 G-1997	1	14294820005A	10/21/2014 20	N:12 Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-8 @ 7 Ft Soil

101722001

LL Sample # SW 7640186 LL Group # 1511613 # 00721 Account

Project Name: Project 101722001

Collected: 10/16/2014 11:55 by ED Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 10/16/2014 18:05 Reported: 10/27/2014 12:36

20018

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg		ug/kg	
10237	Benzene		71-43-2	21,000		290	460.41
10237	Naphthalene		91-20-3	30,000		570	460.41
GC/MS	Semivolatiles	SW-846	8270C	ug/kg		ug/kg	
10724	Anthracene		120-12-7	29		4	1
10724	Benzo(a)anthracene		56-55-3	10	J	4	1
10724	Benzo(a)pyrene		50-32-8	N.D.		4	1
10724	Benzo(b)fluoranthen	e	205-99-2	N.D.		4	1
10724	Benzo(g,h,i)perylen	e	191-24-2	N.D.		4	1
10724	Chrysene		218-01-9	10	J	4	1
10724	Fluorene		86-73-7	89		4	1
10724	Phenanthrene		85-01-8	150		4	1
10724	Pyrene		129-00-0	45		4	1
Wet Cl	nemistry	SM 2540	G-1997	8		8	
00111	Moisture		n.a.	19.5		0.50	1
	Moisture represents	the loss	in weight of the	sample a	fter oven drying at		

103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/15.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10237	Benzene, Naphthalene	SW-846 8260B	1	Q142951AA	10/22/2014	17:48	Sarah A Guill	460.41
07579	GC/MS-5g Field	SW-846 5035A	1	201428935895	10/16/2014	11:55	Client Supplied	1
	Preserv.MeOH-NC							
10724	PAH 8270 (microwave)	SW-846 8270C	1	14293SLF026	10/22/2014	14:03	Joseph M Gambler	1
10814	BNA Soil Microwave PAH	SW-846 3546	1	14293SLF026	10/21/2014	09:30	David S Schrum	1
00111	Moisture	SM 2540 G-1997	1	14294820005A	10/21/2014	20:12	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-2 @ 16 Ft Soil

101722001

LL Sample # SW 7640187 LL Group # 1511613 Account # 00721

Project Name: Project 101722001

Collected: 10/16/2014 11:00 by ED

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 10/16/2014 18:05

Reported: 10/27/2014 12:36

22001

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	31	44.8
10237	Ethylbenzene	100-41-4	N.D.	62	44.8
10237	Isopropylbenzene	98-82-8	N.D.	62	44.8
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	31	44.8
10237	Naphthalene	91-20-3	N.D.	62	44.8
10237	Toluene	108-88-3	N.D.	62	44.8
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	62	44.8
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	62	44.8
Wet Cl	hemistry SM 254	10 G-1997	%	%	
00111	Moisture	n.a.	27.8	0.50	1
	Moisture represents the los	s in weight of the	sample after oven	drying at	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/15.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
	BTE/MTBE/Cumene/Naph/TMBs	SW-846 8260B	1	Q142941AA	10/21/2014 15:35	Sarah A Guill	44.8
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201428935895	10/16/2014 11:00	Client Supplied	1
00111	Moisture	SM 2540 G-1997	1	14294820005A	10/21/2014 20:12	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-3 @ 12 Ft Soil

101722001

LL Sample # SW 7640188 LL Group # 1511613 Account # 00721

Project Name: Project 101722001

Collected: 10/16/2014 10:15 by ED

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 10/16/2014 18:05

Reported: 10/27/2014 12:36

32001

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-	846 8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	24	39
10237	Ethylbenzene	100-41-4	N.D.	48	39
10237	Isopropylbenzene	98-82-8	N.D.	48	39
10237	Methyl Tertiary Butyl Et	ther 1634-04-4	N.D.	24	39
10237	Naphthalene	91-20-3	N.D.	48	39
10237	Toluene	108-88-3	N.D.	48	39
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	48	39
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	4.8	39
Wet Cl	nemistry SM	2540 G-1997	%	%	
00111	Moisture	n.a.	19.0	0.50	1
	Moisture represents the	loss in weight of the	e sample after oven	drying at	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/15.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
	BTE/MTBE/Cumene/Naph/TMBs	SW-846 8260B	1	Q142941AA	10/21/2014 15:58	Sarah A Guill	39
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201428935895	10/16/2014 10:15	Client Supplied	1
00111	Moisture	SM 2540 G-1997	1	14294820005A	10/21/2014 20:12	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-4 @ 11 Ft Soil

101722001

LL Sample # SW 7640189 LL Group # 1511613 Account # 00721

Project Name: Project 101722001

Collected: 10/16/2014 10:40 by ED

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 10/16/2014 18:05

Reported: 10/27/2014 12:36

42001

CAT No. Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 82	60B	ug/kg	ug/kg	
10237 Benzene	71-43-2	N.D.	25	42.16
10237 Ethylbenzene	100-41-4	N.D.	50	42.16
10237 Isopropylbenzene	98-82-8	N.D.	50	42.16
10237 Methyl Tertiary Butyl Ether	1634-04-4	N.D.	25	42.16
10237 Naphthalene	91-20-3	N.D.	50	42.16
10237 Toluene	108-88-3	N.D.	50	42.16
10237 1,2,4-Trimethylbenzene	95-63-6	N.D.	50	42.16
10237 1,3,5-Trimethylbenzene	108-67-8	N.D.	50	42.16
Wet Chemistry SM 2540 G	-1997	%	%	
00111 Moisture	n.a.	15.2	0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/15.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
	BTE/MTBE/Cumene/Naph/TMBs	SW-846 8260B	1	Q142941AA	10/21/2014 16:21	Sarah A Guill	42.16
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201428935895	10/16/2014 10:40	Client Supplied	1
00111	Moisture	SM 2540 G-1997	1	14294820005A	10/21/2014 20:12	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-9 @ 10 Ft Soil

101722001

Project Name: Project 101722001

Collected: 10/16/2014 14:05 by ED

Submitted: 10/16/2014 18:05

Reported: 10/27/2014 12:36

LL Sample # SW 7640190 LL Group # 1511613 Account # 00721

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

92001

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method	Dilution Factor
NO.	-			Kepaic	Detection Limit	Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg	ug/kg	
10237	Acrolein		107-02-8	N.D.	25	88.0
10237	Acrylonitrile		107-13-1	N.D.	5	88.0
10237	Benzene		71-43-2	N.D.	0.6	88.0
10237	Bromodichloromethan	e	75-27-4	N.D.	1	88.0
10237	Bromoform		75-25-2	N.D.	1	88.0
10237	Bromomethane		74-83-9	N.D.	2	88.0
10237	Carbon Tetrachlorid	e	56-23-5	N.D.	1	88.0
10237	Chlorobenzene		108-90-7	N.D.	1	88.0
10237	Chloroethane		75-00-3	N.D.	2	88.0
10237	Chloroform		67-66-3	N.D.	1	88.0
10237	Chloromethane		74-87-3	N.D.	2	88.0
10237	Dibromochloromethan	e	124-48-1	N.D.	1	88.0
10237	1,1-Dichloroethane		75-34-3	N.D.	1	88.0
10237	1,2-Dichloroethane		107-06-2	N.D.	1	88.0
10237	1,1-Dichloroethene		75-35-4	N.D.	1	88.0
10237	cis-1,2-Dichloroeth		156-59-2	N.D.	1	88.0
10237	trans-1,2-Dichloroe		156-60-5	N.D.	1	88.0
10237	1,2-Dichloropropane		78-87-5	N.D.	1	88.0
10237	cis-1,3-Dichloropro		10061-01-5	N.D.	1	88.0
10237	trans-1,3-Dichlorop	ropene	10061-02-6	N.D.	1	88.0
10237	Ethylbenzene		100-41-4	N.D.	1	88.0
10237	Methylene Chloride		75-09-2	N.D.	2	88.0
10237	1,1,2,2-Tetrachloro	ethane	79-34-5	N.D.	1	88.0
10237	Tetrachloroethene		127-18-4	N.D.	1	88.0
10237	Toluene		108-88-3	N.D.	1	88.0
10237	1,1,1-Trichloroetha		71-55-6	N.D.	1	88.0
10237	1,1,2-Trichloroetha	ne	79-00-5	N.D.	1	88.0
10237	Trichloroethene		79-01-6	N.D.	1	88.0
10237	Trichlorofluorometh	ane	75-69-4	N.D.	2	88.0
10237	Vinyl Chloride		75-01-4	N.D.	1	88.0
10237	Xylene (Total)		1330-20-7	N.D.	1	88.0

2-Chloroethyl vinyl ether is an acid labile compound and cannot be reported due to acid preservation of the samples and standards in this method.

GC/MS	Semivolatiles SV	V-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	5	1
10727	Acenaphthylene	208-96-8	N.D.	5	1
10727	Anthracene	120-12-7	N.D.	5	1
10727	Benzidine	92-87-5	N.D.	950	1
10727	Benzo(a)anthracene	56-55-3	N.D.	5	1
10727	Benzo(a)pyrene	50-32-8	N.D.	5	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	5	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	5	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	5	1
10727	4-Bromophenyl-phenylet	ther 101-55-3	N.D.	23	1
10727	Butylbenzylphthalate	85-68-7	N.D.	91	1
10727	Di-n-butylphthalate	84-74-2	N.D.	91	1
10727	4-Chloro-3-methylpheno	59-50-7	N.D.	23	1
10727	bis(2-Chloroethoxy)met	hane 111-91-1	N.D.	23	1
10727	bis(2-Chloroethyl)ethe	r 111-44-4	N.D.	23	1



Analysis Report

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Sample Description: SB-9 @ 10 Ft Soil

101722001

LL Sample # SW 7640190 LL Group # 1511613 Account # 00721

Project Name: Project 101722001

Collected: 10/16/2014 14:05 by ED

Rettew Associates
3020 Columbia Avenue

Submitted: 10/16/2014 18:05

Lancaster PA 17603-4011

Reported: 10/27/2014 12:36

92001

Metals

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles SW-846	8270C	ug/kg	ug/kg	
10727	bis(2-Chloroisopropyl)ether	39638-32-9	N.D.	23	1
	Bis(2-chloroisopropyl) ether	CAS #39638-32-9 a	and		
	2,2'-Oxybis(1-chloropropane)	CAS #108-60-1 car	not be separated		
	chromatographically. The re	ported result repr	resents the combined		
	total of both compounds.				
10727	2-Chloronaphthalene	91-58-7	N.D.	10	1
10727	2-Chlorophenol	95-57-8	N.D.	23	1
10727	4-Chlorophenyl-phenylether	7005-72-3	N.D.	23	1
10727	Chrysene	218-01-9	N.D.	5	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	5	1
10727	1,2-Dichlorobenzene	95-50-1	N.D.	23	1
10727	1,3-Dichlorobenzene	541-73-1	N.D.	23	1
10727	1,4-Dichlorobenzene	106-46-7	N.D.	23	1
10727	3,3'-Dichlorobenzidine	91-94-1	N.D.	140	1
10727	2,4-Dichlorophenol	120-83-2	N.D.	23	1
10727	Diethylphthalate	84-66-2	N.D.	91	1
10727	2,4-Dimethylphenol	105-67-9	N.D.	23	1
10727	Dimethylphthalate	131-11-3	N.D.	91	1
10727	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	230	1
10727	2,4-Dinitrophenol	51-28-5	N.D.	410	1
10727	2,4-Dinitrotoluene	121-14-2	N.D.	91	1
10727	2,6-Dinitrotoluene	606-20-2	N.D.	23	1
10727	1,2-Diphenylhydrazine	122-66-7	N.D.	23	1
10727	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	91	1
10727	Fluoranthene	206-44-0	N.D.	5	1
10727	Fluorene	86-73-7	N.D.	5	1
10727	Hexachlorobenzene	118-74-1	N.D.	5	1
10727	Hexachlorobutadiene	87-68-3	N.D.	23	1
10727	Hexachlorocyclopentadiene	77-47-4	N.D.	230	1
10727	Hexachloroethane	67-72-1	N.D.	45	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	5	1
10727	Isophorone	78-59-1	N.D.	23	1
10727	Naphthalene	91-20-3	N.D.	5	1
10727 10727	Nitrobenzene	98-95-3	N.D.	23 23	1 1
	2-Nitrophenol	88-75-5	N.D.		1
10727	4-Nitrophenol	100-02-7	N.D.	230	
10727	N-Nitrosodimethylamine	62-75-9	N.D.	91	1
10727 10727	N-Nitroso-di-n-propylamine N-Nitrosodiphenylamine	621-64-7 86-30-6	N.D. N.D.	23 23	1
10/2/				23	1
	N-nitrosodiphenylamine decom diphenylamine. The result r				
	represents the combined tota				
10727	Di-n-octylphthalate	117-84-0	N.D.	91	1
10727	Pentachlorophenol	87-86-5	N.D.	45	1
10727	Phenanthrene	85-01-8	N.D.	5	1
10727	Phenol	108-95-2	N.D.	23	1
10727	Pyrene	129-00-0	N.D.	5	1
10727	1,2,4-Trichlorobenzene	120-82-1	N.D.	23	1
10727	2,4,6-Trichlorophenol	88-06-2	N.D.	23	1
20.01	_, _, _ = = = = = = = = = = = = = = = =				_

SW-846 6010B

mg/kg

mg/kg



Analysis Report

LL Sample # SW 7640190 LL Group # 1511613 Account # 00721

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-9 @ 10 Ft Soil

101722001

Project Name: Project 101722001

Collected: 10/16/2014 14:05 by ED Rettew Associates 3020 Columbia Avenue Submitted: 10/16/2014 18:05 Lancaster PA 17603-4011

Reported: 10/27/2014 12:36

92001

CAT No.	Analysis Name		CAS Number	Dry Result	;	Dry Method Detection Limit	Dilution Factor
Metal	s	SW-846 601	0В	mg/kg		mg/kg	
06944	Antimony		7440-36-0	2.02	J	0.444	1
06935	Arsenic		7440-38-2	N.D.		0.861	1
06947	Beryllium		7440-41-7	1.46		0.0901	1
06949	Cadmium		7440-43-9	N.D.		0.0444	1
06951	Chromium		7440-47-3	23.5		0.148	1
06953	Copper		7440-50-8	7.75		0.444	1
06955	Lead		7439-92-1	7.51		0.672	1
06961	Nickel		7440-02-0	16.4		0.202	1
06936	Selenium		7782-49-2	N.D.		0.592	1
06966	Silver		7440-22-4	N.D.		0.255	1
06925	Thallium		7440-28-0	1.37	J	1.08	1
06972	Zinc		7440-66-6	57.5		0.350	1
		SW-846 747	1 A	mg/kg		mg/kg	
00159	Mercury		7439-97-6	N.D.		0.0130	1
Wet C	hemistry	SM 2540 G-	1997	%		%	
00111	Moisture		n.a.	27.8		0.50	1
	Moisture represen 103 - 105 degrees				fter oven drying at d is on an		

as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/15.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

			_	=			
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	PPL/TCL Volatiles in Soil	SW-846 8260B	1	X142941AA	10/21/2014 16:40	Chelsea B Stong	88.0
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201428935895	10/16/2014 14:05	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201428935895	10/16/2014 14:05	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201428935895	10/16/2014 14:05	Client Supplied	1
10727	PPL/TCL SVOCs in Soil	SW-846 8270C	1	14290SLB026	10/20/2014 15:53	Joseph M Gambler	1
10809	BNA Soil Microwave	SW-846 3546	1	14290SLB026	10/17/2014 07:30	Olivia Arosemena	1
06944	Antimony	SW-846 6010B	1	142905708001	10/21/2014 23:49	Elaine F Stoltzfus	3 1
06935	Arsenic	SW-846 6010B	1	142905708001	10/21/2014 23:49	Elaine F Stoltzfus	3 1
06947	Beryllium	SW-846 6010B	1	142905708001	10/21/2014 23:49	Elaine F Stoltzfus	3 1



Analysis Report

LL Sample # SW 7640190 LL Group # 1511613 Account # 00721

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Sample Description: SB-9 @ 10 Ft Soil

101722001

Project Name: Project 101722001

Collected: 10/16/2014 14:05 by ED

Submitted: 10/16/2014 18:05 Reported: 10/27/2014 12:36

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

92001

	Laboratory Sample Analysis Record								
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	1	Analyst	Dilution Factor	
06949	Cadmium	SW-846 6010B	1	142905708001	10/21/2014 2	3:49	Elaine F Stoltzfus	1	
06951	Chromium	SW-846 6010B	1	142905708001	10/21/2014 2	3:49	Elaine F Stoltzfus	1	
06953	Copper	SW-846 6010B	1	142905708001	10/21/2014 2	3:49	Elaine F Stoltzfus	1	
06955	Lead	SW-846 6010B	1	142905708001	10/21/2014 2	3:49	Elaine F Stoltzfus	1	
06961	Nickel	SW-846 6010B	1	142905708001	10/21/2014 2	3:49	Elaine F Stoltzfus	1	
06936	Selenium	SW-846 6010B	1	142905708001	10/21/2014 2	3:49	Elaine F Stoltzfus	1	
06966	Silver	SW-846 6010B	1	142905708001	10/21/2014 2	3:49	Elaine F Stoltzfus	1	
06925	Thallium	SW-846 6010B	1	142905708001	10/21/2014 2	3:49	Elaine F Stoltzfus	1	
06972	Zinc	SW-846 6010B	1	142905708001	10/21/2014 2	3:49	Elaine F Stoltzfus	1	
00159	Mercury	SW-846 7471A	1	142905711001	10/20/2014 1	1:20	Damary Valentin	1	
05708		SW-846 3050B	1	142905708001	, ,	8:45	Christopher M Klumpp	1	
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	142905711001	10/20/2014 0	8:36	Christopher M Klumpp	1	
00111	Moisture	SM 2540 G-1997	1	14294820005A	10/21/2014 2	0:12	Scott W Freisher	1	



Analysis Report

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Sample Description: SB-10 @ 5 Ft Soil

101722001

Project Name: Project 101722001

Collected: 10/16/2014 14:40 by ED

Submitted: 10/16/2014 18:05

Reported: 10/27/2014 12:36

LL Sample # SW 7640191 LL Group # 1511613 Account # 00721

Rettew Associates

3020 Columbia Avenue Lancaster PA 17603-4011

10001

CAT No.	Analysis Name		CAS Number	Dry Result	=	Me	Dry ethod etection Limit	Dilution Factor
						_		
GC/MS	Volatiles	SW-846	8260B	ug/kg		u	g/kg	
10237	Acrolein		107-02-8	N.D.		2	8	1.02
10237	Acrylonitrile		107-13-1	N.D.		6		1.02
10237	Benzene		71-43-2	8.0	J	0	. 7	1.02
10237	Bromodichloromethane	=	75-27-4	N.D.		1		1.02
10237	Bromoform		75-25-2	N.D.		1		1.02
10237	Bromomethane		74-83-9	N.D.		3		1.02
10237	Carbon Tetrachloride	=	56-23-5	N.D.		1		1.02
10237	Chlorobenzene		108-90-7	N.D.		1		1.02
10237	Chloroethane		75-00-3	N.D.		3		1.02
10237	Chloroform		67-66-3	N.D.		1		1.02
10237	Chloromethane		74-87-3	N.D.		3		1.02
10237	Dibromochloromethan	9	124-48-1	N.D.		1		1.02
10237	1,1-Dichloroethane		75-34-3	N.D.		1		1.02
10237	1,2-Dichloroethane		107-06-2	N.D.		1		1.02
10237	1,1-Dichloroethene		75-35-4	N.D.		1		1.02
10237	cis-1,2-Dichloroethe		156-59-2	N.D.		1		1.02
10237	trans-1,2-Dichloroe	thene	156-60-5	N.D.		1		1.02
10237	1,2-Dichloropropane		78-87-5	N.D.		1		1.02
10237	cis-1,3-Dichloropro		10061-01-5	N.D.		1		1.02
10237	trans-1,3-Dichlorop	ropene	10061-02-6	N.D.		1		1.02
10237	Ethylbenzene		100-41-4	N.D.		1		1.02
10237	Methylene Chloride		75-09-2	N.D.		3		1.02
10237	1,1,2,2-Tetrachloro	ethane	79-34-5	N.D.		1		1.02
10237	Tetrachloroethene		127-18-4	N.D.		1		1.02
10237	Toluene		108-88-3	N.D.		1		1.02
10237	1,1,1-Trichloroetha		71-55-6	N.D.		1		1.02
10237	1,1,2-Trichloroetha	ne	79-00-5	N.D.		1		1.02
10237	Trichloroethene		79-01-6	N.D.		1		1.02
10237	Trichlorofluorometha	ane	75-69-4	N.D.		3		1.02
10237	Vinyl Chloride		75-01-4	N.D.		1		1.02
10237	Xylene (Total)		1330-20-7	N.D.		1		1.02

2-Chloroethyl vinyl ether is an acid labile compound and cannot be reported due to acid preservation of the samples and standards in this method.

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken: The sample was re-analyzed and the QC is again outside of the acceptance limits, indicating a matrix effect. The data is reported from the initial trial.

GC/MS	Semivolatiles	SW-846	8270C	ug/kg		ug/kg	
10727	Acenaphthene		83-32-9	N.D.		45	10
10727	Acenaphthylene		208-96-8	N.D.		4.5	10
10727	Anthracene		120-12-7	N.D.		4.5	10
10727	Benzidine		92-87-5	N.D.		9,400	10
10727	Benzo(a)anthracene		56-55-3	N.D.		4.5	10
10727	Benzo(a)pyrene		50-32-8	46	J	4.5	10
10727	Benzo(b)fluoranthen	е	205-99-2	54	J	4.5	10
10727	Benzo(g,h,i)perylen	е	191-24-2	N.D.		4.5	10
10727	Benzo(k)fluoranthen	е	207-08-9	N.D.		4.5	10



Analysis Report

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Sample Description: SB-10 @ 5 Ft Soil

101722001

LL Sample # SW 7640191 LL Group # 1511613 Account # 00721

Project Name: Project 101722001

Collected: 10/16/2014 14:40 by ED

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 10/16/2014 18:05

Reported: 10/27/2014 12:36

10001

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles SW-846 827	70C	ug/kg	ug/kg	
10727	4-Bromophenyl-phenylether	101-55-3	N.D.	220	10
10727	Butylbenzylphthalate	85-68-7	N.D.	900	10
10727	Di-n-butylphthalate	84-74-2	N.D.	900	10
10727	4-Chloro-3-methylphenol	59-50-7	N.D.	220	10
10727	bis(2-Chloroethoxy)methane	111-91-1	N.D.	220	10
10727	bis(2-Chloroethyl)ether	111-44-4	N.D.	220	10
10727	bis(2-Chloroisopropyl)ether	39638-32-9	N.D.	220	10
	Bis(2-chloroisopropyl) ether CAS				
	2,2'-Oxybis(1-chloropropane) CAS				
	chromatographically. The report total of both compounds.	ed result repre	esents the combined		
10727	2-Chloronaphthalene	91-58-7	N.D.	94	10
10727	2-Chlorophenol	95-57-8	N.D.	220	10
10727	4-Chlorophenyl-phenylether	7005-72-3	N.D.	220	10
10727	Chrysene	218-01-9	N.D.	45	10
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	4.5	10
10727	1,2-Dichlorobenzene	95-50-1	N.D.	220	10
10727	1,3-Dichlorobenzene	541-73-1	N.D.	220	10
10727	1,4-Dichlorobenzene	106-46-7	N.D.	220	10
10727	3,3'-Dichlorobenzidine	91-94-1	N.D.	1,300	10
10727	2,4-Dichlorophenol	120-83-2	N.D.	220	10
10727	Diethylphthalate	84-66-2	N.D.	900	10
10727	2,4-Dimethylphenol	105-67-9	N.D.	220	10
10727	Dimethylphthalate	131-11-3	N.D.	900	10
10727	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	2,200	10
10727	2,4-Dinitrophenol	51-28-5	N.D.	4,000	10
10727	2,4-Dinitrotoluene	121-14-2	N.D.	900	10
10727	2,6-Dinitrotoluene	606-20-2	N.D.	220	10
10727	1,2-Diphenylhydrazine	122-66-7	N.D.	220	10
10727	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	900	10
10727	Fluoranthene	206-44-0	N.D.	45	10
10727	Fluorene	86-73-7	N.D.	4.5	10
10727	Hexachlorobenzene	118-74-1	N.D.	45	10
10727	Hexachlorobutadiene	87-68-3	N.D.	220	10
10727	Hexachlorocyclopentadiene	77-47-4	N.D.	2,200	10
10727	Hexachloroethane	67-72-1	N.D.	450	10
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	45	10
10727	Isophorone	78-59-1	N.D.	220	10
10727	Naphthalene	91-20-3	N.D.	45	10
10727	Nitrobenzene	98-95-3	N.D.	220	10
10727	2-Nitrophenol	88-75-5	N.D.	220	10
10727	4-Nitrophenol	100-02-7	N.D.	2,200	10
10727		62-75-9	N.D.	900	10
10727	N-Nitroso-di-n-propylamine	621-64-7	N.D.	220	10
10727	N-Nitrosodiphenylamine	86-30-6	N.D.	220	10
	N-nitrosodiphenylamine decompose				
	diphenylamine. The result repor represents the combined total of				
10727	Di-n-octylphthalate	117-84-0	N.D.	900	10
10727	Pentachlorophenol	87-86-5	N.D.	450	10
10727	Phenanthrene	85-01-8	N.D.	45	10



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-10 @ 5 Ft Soil

101722001

LL Sample # SW 7640191 LL Group # 1511613 Account # 00721

Project Name: Project 101722001

Collected: 10/16/2014 14:40 by ED

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 10/16/2014 18:05

Reported: 10/27/2014 12:36

10001

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Method	Dilution Factor
						Detection Limit	
GC/MS	Semivolatiles	SW-846	8270C	ug/kg		ug/kg	
10727	Phenol		108-95-2	N.D.		220	10
10727	Pyrene		129-00-0	N.D.		45	10
10727	1,2,4-Trichlorobenz	ene	120-82-1	N.D.		220	10
10727	2,4,6-Trichlorophen	ol	88-06-2	N.D.		220	10
Repo	rting limits were ra	ised due to	o interference fr	om the sam	mple matrix.		
Metal	3	SW-846	6010B	mg/kg		mg/kg	
06944	Antimony		7440-36-0	3.26		0.435	1
06935	Arsenic		7440-38-2	2.45	J	0.844	1
06947	Beryllium		7440-41-7	1.40		0.0884	1
06949	Cadmium		7440-43-9	N.D.		0.0435	1
06951	Chromium		7440-47-3	30.1		0.145	1
06953	Copper		7440-50-8	25.7		0.435	1
06955	Lead		7439-92-1	11.6		0.659	1
06961	Nickel		7440-02-0	31.8		0.198	1
06936	Selenium		7782-49-2	N.D.		0.580	1
06966	Silver		7440-22-4	N.D.		0.251	1
06925	Thallium		7440-28-0	1.77	J	1.06	1
06972	Zinc		7440-66-6	72.6		0.343	1
		SW-846	74712	mg/kg		mg/kg	
00159	Monayara	DN 010	7439-97-6	N.D.		0.0135	1
00159	Mercury		/439-9/-0	N.D.		0.0135	1
Wet Cl	nemistry	SM 2540	G-1997	8		8	
00111	Moisture		n.a.	27.1		0.50	1
	Moisture represents	the loss	in weight of the	sample af	ter oven drying at		
	103 - 105 degrees C	elsius. Th	e moisture result	reported	lis on an		
	as-received basis.						

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/15.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	PPL/TCL Volatiles in Soil	SW-846 8260B	1	X142941AA	10/21/2014 17:04	Chelsea B Stong	1.02
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201428935895	10/16/2014 14:40	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201428935895	10/16/2014 14:40	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201428935895	10/16/2014 14:40	Client Supplied	1
10727	PPL/TCL SVOCs in Soil	SW-846 8270C	1	14290SLB026	10/20/2014 16:16	Joseph M Gambler	10



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-10 @ 5 Ft Soil

101722001

Project Name: Project 101722001

Collected: 10/16/2014 14:40 by ED

Submitted: 10/16/2014 18:05 Reported: 10/27/2014 12:36

Reported.

10001

LL Sample # SW 7640191 LL Group # 1511613 Account # 00721

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

	Laboratory Sample Analysis Record									
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor		
10809	BNA Soil Microwave	SW-846 3546	1	14290SLB026	10/17/2014	07:30	Olivia Arosemena	1		
06944	Antimony	SW-846 6010B	1	142905708001	10/21/2014	23:53	Elaine F Stoltzfus	. 1		
06935	Arsenic	SW-846 6010B	1	142905708001	10/21/2014	23:53	Elaine F Stoltzfus	1		
06947	Beryllium	SW-846 6010B	1	142905708001	10/21/2014	23:53	Elaine F Stoltzfus	1		
06949	Cadmium	SW-846 6010B	1	142905708001	10/21/2014	23:53	Elaine F Stoltzfus	1		
06951	Chromium	SW-846 6010B	1	142905708001	10/21/2014	23:53	Elaine F Stoltzfus	1		
06953	Copper	SW-846 6010B	1	142905708001	10/21/2014	23:53	Elaine F Stoltzfus	1		
06955	Lead	SW-846 6010B	1	142905708001	10/21/2014	23:53	Elaine F Stoltzfus	1		
06961	Nickel	SW-846 6010B	1	142905708001	10/21/2014	23:53	Elaine F Stoltzfus	1		
	Selenium	SW-846 6010B	1	142905708001	10/21/2014	23:53	Elaine F Stoltzfus	1		
06966	Silver	SW-846 6010B	1	142905708001	10/21/2014	23:53	Elaine F Stoltzfus	1		
06925	Thallium	SW-846 6010B	1	142905708001	10/21/2014	23:53	Elaine F Stoltzfus	1		
06972	Zinc	SW-846 6010B	1	142905708001	10/21/2014	23:53	Elaine F Stoltzfus	1		
00159	2	SW-846 7471A	1	142935711002	10/22/2014	07:05	Damary Valentin	1		
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	142905708001	10/20/2014	08:45	Christopher M Klumpp	1		
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	142905711001	10/20/2014	08:36	Christopher M Klumpp	1		
05711	SW SW846 Hg Digest	SW-846 7471A modified	2	142935711002	10/21/2014	11:08	Christopher M Klumpp	1		
00111	Moisture	SM 2540 G-1997	1	14294820005A	10/21/2014	20:12	Scott W Freisher	1		



Analysis Report

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Sample Description: SB-1 Soil

101722001

Project Name: Project 101722001

Collected: 10/16/2014 15:55 by ED

Submitted: 10/16/2014 18:05

Reported: 10/27/2014 12:36

LL Sample # SW 7640192 LL Group # 1511613 Account # 00721

Rettew Associates

3020 Columbia Avenue Lancaster PA 17603-4011

12001

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg	ug/kg	
10237	Acrolein		107-02-8	N.D.	23	1.08
10237	Acrylonitrile		107-13-1	N.D.	5	1.08
10237	Benzene		71-43-2	N.D.	0.6	1.08
10237	Bromodichloromethan	е	75-27-4	N.D.	1	1.08
10237	Bromoform		75-25-2	N.D.	1	1.08
10237	Bromomethane		74-83-9	N.D.	2	1.08
10237	Carbon Tetrachlorid	е	56-23-5	N.D.	1	1.08
10237	Chlorobenzene		108-90-7	N.D.	1	1.08
10237	Chloroethane		75-00-3	N.D.	2	1.08
10237	Chloroform		67-66-3	N.D.	1	1.08
10237	Chloromethane		74-87-3	N.D.	2	1.08
10237	Dibromochloromethan	е	124-48-1	N.D.	1	1.08
10237	1,1-Dichloroethane		75-34-3	N.D.	1	1.08
10237	1,2-Dichloroethane		107-06-2	N.D.	1	1.08
10237	1,1-Dichloroethene		75-35-4	N.D.	1	1.08
10237	cis-1,2-Dichloroeth	ene	156-59-2	N.D.	1	1.08
10237	trans-1,2-Dichloroe	thene	156-60-5	N.D.	1	1.08
10237	1,2-Dichloropropane		78-87-5	N.D.	1	1.08
10237	cis-1,3-Dichloropro	pene	10061-01-5	N.D.	1	1.08
10237	trans-1,3-Dichlorop	ropene	10061-02-6	N.D.	1	1.08
10237	Ethylbenzene		100-41-4	N.D.	1	1.08
10237	Methylene Chloride		75-09-2	N.D.	2	1.08
10237	1,1,2,2-Tetrachloro	ethane	79-34-5	N.D.	1	1.08
10237	Tetrachloroethene		127-18-4	N.D.	1	1.08
10237	Toluene		108-88-3	N.D.	1	1.08
10237	1,1,1-Trichloroetha	ne	71-55-6	N.D.	1	1.08
10237	1,1,2-Trichloroethan	ne	79-00-5	N.D.	1	1.08
10237	Trichloroethene		79-01-6	N.D.	1	1.08
10237	Trichlorofluorometh	ane	75-69-4	N.D.	2	1.08
10237	Vinyl Chloride		75-01-4	N.D.	1	1.08
10237	Xylene (Total)		1330-20-7	N.D.	1	1.08

2-Chloroethyl vinyl ether is an acid labile compound and cannot be reported due to acid preservation of the samples and standards in this method.

GC/MS	Semivolatiles	SW-846	8270C	ug/kg	ug/kg	
10727	Acenaphthene		83-32-9	N.D.	4	1
10727	Acenaphthylene		208-96-8	N.D.	4	1
10727	Anthracene		120-12-7	N.D.	4	1
10727	Benzidine		92-87-5	N.D.	750	1
10727	Benzo(a)anthracene		56-55-3	N.D.	4	1
10727	Benzo(a)pyrene		50-32-8	N.D.	4	1
10727	Benzo(b)fluoranthene	•	205-99-2	N.D.	4	1
10727	Benzo(g,h,i)perylene	•	191-24-2	N.D.	4	1
10727	Benzo(k)fluoranthene	•	207-08-9	N.D.	4	1
10727	4-Bromophenyl-phenyl	ether.	101-55-3	N.D.	18	1
10727	Butylbenzylphthalate	;	85-68-7	N.D.	72	1
10727	Di-n-butylphthalate		84-74-2	N.D.	72	1
10727	4-Chloro-3-methylphe	enol	59-50-7	N.D.	18	1
10727	bis(2-Chloroethoxy)	ethane	111-91-1	N.D.	18	1
10727	bis(2-Chloroethyl)et	her	111-44-4	N.D.	18	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-1 Soil

101722001

LL Sample # SW 7640192 LL Group # 1511613 Account # 00721

Project Name: Project 101722001

Collected: 10/16/2014 15:55 by ED

Rettew Associates
3020 Columbia Avenue

Submitted: 10/16/2014 18:05

Lancaster PA 17603-4011

Reported: 10/27/2014 12:36

12001

Metals

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles SW-846	8270C	ug/kg	ug/kg	
10727	bis(2-Chloroisopropyl)ether	39638-32-9	N.D.	18	1
	Bis(2-chloroisopropyl) ether	CAS #39638-32-9 a	nd		
	2,2'-Oxybis(1-chloropropane)	CAS #108-60-1 can	not be separated		
	chromatographically. The re	ported result repr	esents the combined		
	total of both compounds.				
10727	2-Chloronaphthalene	91-58-7	N.D.	8	1
10727	2-Chlorophenol	95-57-8	N.D.	18	1
10727	4-Chlorophenyl-phenylether	7005-72-3	N.D.	18	1
10727	Chrysene	218-01-9	N.D.	4	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	4	1
10727	1,2-Dichlorobenzene	95-50-1	N.D.	18	1
10727	1,3-Dichlorobenzene	541-73-1	N.D.	18	1
10727	1,4-Dichlorobenzene	106-46-7	N.D.	18	1
10727	3,3'-Dichlorobenzidine	91-94-1	N.D.	110	1
10727	2,4-Dichlorophenol	120-83-2	N.D.	18	1
10727	Diethylphthalate	84-66-2	N.D.	72	1
10727	2,4-Dimethylphenol	105-67-9	N.D.	18	1
10727	Dimethylphthalate	131-11-3	N.D.	72	1
10727	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	180	1
10727	2,4-Dinitrophenol	51-28-5	N.D.	320	1
10727	2,4-Dinitrotoluene	121-14-2	N.D.	72	1
10727	2,6-Dinitrotoluene	606-20-2	N.D.	18	1
10727	1,2-Diphenylhydrazine	122-66-7	N.D.	18	1
10727	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	72	1
10727	Fluoranthene	206-44-0	N.D.	4	1
10727	Fluorene	86-73-7	N.D.	4	1
10727	Hexachlorobenzene	118-74-1	N.D.	4	1
10727	Hexachlorobutadiene	87-68-3	N.D.	18	1
10727	Hexachlorocyclopentadiene	77-47-4	N.D.	180	1
10727	Hexachloroethane	67-72-1	N.D.	36	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	4	1
10727	Isophorone	78-59-1	N.D.	18	1
10727	Naphthalene	91-20-3	N.D.	4	1
10727	Nitrobenzene	98-95-3	N.D.	18	1
10727	2-Nitrophenol	88-75-5	N.D.	18	1
10727	4-Nitrophenol	100-02-7	N.D.	180	1
10727	N-Nitrosodimethylamine	62-75-9	N.D.	72	1
10727	N-Nitroso-di-n-propylamine	621-64-7	N.D.	18	1
10727	N-Nitrosodiphenylamine	86-30-6	N.D.	18	1
	N-nitrosodiphenylamine decom				
	diphenylamine. The result r				
10000	represents the combined tota				2
10727	Di-n-octylphthalate	117-84-0	N.D.	72	1
10727	Pentachlorophenol	87-86-5	N.D.	36	1
10727	Phenanthrene	85-01-8	N.D.	4	1
10727	Phenol	108-95-2	N.D.	18	1
10727	Pyrene	129-00-0	N.D.	4	1
10727	1,2,4-Trichlorobenzene	120-82-1	N.D.	18 18	1
10727	2,4,6-Trichlorophenol	88-06-2	N.D.	TR	1

mg/kg

mg/kg

SW-846 6010B



Analysis Report

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Sample Description: SB-1 Soil

101722001

Project Name: Project 101722001

Collected: 10/16/2014 15:55 by ED

Submitted: 10/16/2014 18:05

Reported: 10/27/2014 12:36

LL Sample # SW 7640192 LL Group # 1511613 Account # 00721

Rettew Associates

3020 Columbia Avenue Lancaster PA 17603-4011

12001

CAT No.	Analysis Name		CAS Number	Dry Result	Method Detection Limit	Dilution Factor
Metal	s	SW-846 60	010B	mg/kg	mg/kg	
06944	Antimony		7440-36-0	1.62 J	0.348	1
06935	Arsenic		7440-38-2	N.D.	0.675	1
06947	Beryllium		7440-41-7	0.891	0.0706	1
06949	Cadmium		7440-43-9	N.D.	0.0348	1
06951	Chromium		7440-47-3	14.4	0.116	1
06953	Copper		7440-50-8	20.2	0.348	1
06955	Lead		7439-92-1	1.60	0.527	1
06961	Nickel		7440-02-0	6.01	0.158	1
06936	Selenium		7782-49-2	N.D.	0.464	1
06966	Silver		7440-22-4	N.D.	0.200	1
06925	Thallium		7440-28-0	N.D.	0.843	1
06972	Zinc		7440-66-6	14.9	0.274	1
		SW-846 74	171A	mg/kg	mg/kg	
00159	Mercury		7439-97-6	N.D.	0.0101	1
Wet C	hemistry	SM 2540 (G-1997	%	%	
00111	Moisture		n.a.	7.0	0.50	1
	Moisture represe	nts the loss in	weight of the	sample after oven	drying at	
	103 - 105 degrees	s Celsius. The	moisture result	reported is on an	 :	

as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/15.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

			_	-			
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	PPL/TCL Volatiles in Soil	SW-846 8260B	1	X142941AA	10/21/2014 17:27	Chelsea B Stong	1.08
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201428935895	10/16/2014 15:55	Client Supplied	1
	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201428935895	10/16/2014 15:55	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201428935895	10/16/2014 15:55	Client Supplied	1
10727	PPL/TCL SVOCs in Soil	SW-846 8270C	1	14294SLC026	10/22/2014 10:33	Joseph M Gambler	1
10809	BNA Soil Microwave	SW-846 3546	2	14294SLC026	10/21/2014 18:40	Sally L Appleyard	1
06944	Antimony	SW-846 6010B	1	142905708001	10/21/2014 23:57	Elaine F Stoltzfus	3 1
06935	Arsenic	SW-846 6010B	1	142905708001	10/21/2014 23:57	Elaine F Stoltzfus	s 1
06947	Beryllium	SW-846 6010B	1	142905708001	10/21/2014 23:57	Elaine F Stoltzfus	3 1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-1 Soil

101722001

Project Name: Project 101722001

Collected: 10/16/2014 15:55 by ED

Submitted: 10/16/2014 18:05

Reported: 10/27/2014 12:36

LL Sample # SW 7640192 LL Group # 1511613 Account # 00721

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

12001

	Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	!	Analyst	Dilution Factor			
06949	Cadmium	SW-846 6010B	1	142905708001	10/21/2014 2	3:57	Elaine F Stoltzfus	1			
06951	Chromium	SW-846 6010B	1	142905708001	10/21/2014 23	3:57	Elaine F Stoltzfus	1			
06953	Copper	SW-846 6010B	1	142905708001	10/21/2014 23	3:57	Elaine F Stoltzfus	1			
06955	Lead	SW-846 6010B	1	142905708001	10/21/2014 23	3:57	Elaine F Stoltzfus	1			
06961	Nickel	SW-846 6010B	1	142905708001	10/21/2014 23	3:57	Elaine F Stoltzfus	1			
06936	Selenium	SW-846 6010B	1	142905708001	10/21/2014 23	3:57	Elaine F Stoltzfus	1			
06966	Silver	SW-846 6010B	1	142905708001	10/21/2014 23	3:57	Elaine F Stoltzfus	1			
06925	Thallium	SW-846 6010B	1	142905708001	10/21/2014 23	3:57	Elaine F Stoltzfus	1			
06972	Zinc	SW-846 6010B	1	142905708001	10/21/2014 23	3:57	Elaine F Stoltzfus	1			
00159	Mercury	SW-846 7471A	1	142905711001	10/20/2014 1:	1:24	Damary Valentin	1			
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	142905708001	10/20/2014 08	8:45	Christopher M Klumpp	1			
05711	5	SW-846 7471A modified	1	142905711001	10/20/2014 0	8:36	Christopher M Klumpp	1			
00111	Moisture	SM 2540 G-1997	1	14294820005A	10/21/2014 20	0:12	Scott W Freisher	1			



Analysis Report

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Sample Description: Supply Well Water

101722001

LL Sample # WW 7640193 LL Group # 1511613 Account # 00721

Project Name: Project 101722001

Collected: 10/16/2014 11:30 by ED

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 10/16/2014 18:05 Reported: 10/27/2014 12:36

2001W

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	3260B	ug/l	ug/l	
10335	Acrolein	107-02-8	N.D.	40	1
10335	Acrylonitrile	107-13-1	N.D.	4	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1
10335	Bromoform	75-25-2	N.D.	0.5	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1
10335	Chloroethane	75-00-3	N.D.	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	N.D.	2	1
	2-Chloroethyl vinyl ether may preserve this sample.	not be recovered	d if acid was used to		
10335	Chloroform	67-66-3	N.D.	0.5	1
10335	Chloromethane	74-87-3	N.D.	0.5	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethene	127-18-4	N.D.	0.5	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1
10335	Trichloroethene Trichlorofluoromethane	79-01-6	N.D.	0.5 0.5	
10335 10335		75-69-4 75-01-4	N.D. N.D.	0.5	1
10335	Vinyl Chloride			0.5	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1
	Semivolatiles SW-846		ug/l	ug/l	
04678	Acenaphthene	83-32-9	N.D.	0.1	1
04678	Acenaphthylene	208-96-8	N.D.	0.1	1
04678 04678	Anthracene Benzidine	120-12-7	N.D.	0.1 21	1
		92-87-5 56-55-3	N.D.	0.1	1
04678 04678	Benzo(a)anthracene	50-32-8	N.D. N.D.	0.1	1
04678	Benzo(a)pyrene Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
04678	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
04678	Benzo(k)fluoranthene	207-08-9	N.D.	0.1	1
04678	4-Bromophenyl-phenylether	101-55-3	N.D.	0.5	1
04678	Butylbenzylphthalate	85-68-7	N.D.	2	1
04678	Di-n-butylphthalate	84-74-2	N.D.	2	1
04678	4-Chloro-3-methylphenol	59-50-7	N.D.	0.5	1
04678	bis (2-Chloroethoxy) methane	111-91-1	N.D.	0.5	1
04678	bis(2-Chloroethyl)ether	111-44-4	N.D.	0.5	1



Analysis Report

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Sample Description: Supply Well Water

101722001

LL Sample # WW 7640193 LL Group # 1511613 Account # 00721

Project Name: Project 101722001

Collected: 10/16/2014 11:30 by ED

Rettew Associates 3020 Columbia Avenue

Submitted: 10/16/2014 18:05

Lancaster PA 17603-4011

Reported: 10/27/2014 12:36

2001W

Metals

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles SW-846	8270C	ug/l	ug/l	
04678	bis(2-Chloroisopropyl)ether	39638-32-9	N.D.	0.5	1
	Bis(2-chloroisopropyl) ether	CAS #39638-32-9 a	nd		
	2,2'-Oxybis(1-chloropropane)				
	chromatographically. The re-				
	total of both compounds.	=			
04678	2-Chloronaphthalene	91-58-7	N.D.	0.4	1
04678	2-Chlorophenol	95-57-8	N.D.	0.5	1
04678	4-Chlorophenyl-phenylether	7005-72-3	N.D.	0.5	1
04678	Chrysene	218-01-9	N.D.	0.1	1
04678	Dibenz(a,h)anthracene	53-70-3	N.D.	0.1	1
04678	1,2-Dichlorobenzene	95-50-1	N.D.	0.5	1
04678	1,3-Dichlorobenzene	541-73-1	N.D.	0.5	1
04678	1,4-Dichlorobenzene	106-46-7	N.D.	0.5	1
04678	3,3'-Dichlorobenzidine	91-94-1	N.D.	2	1
04678	2,4-Dichlorophenol	120-83-2	N.D.	0.5	1
04678	Diethylphthalate	84-66-2	N.D.	2	1
04678	2,4-Dimethylphenol	105-67-9	N.D.	0.5	1
04678	Dimethylphthalate	131-11-3	N.D.	2	1
04678	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	5	1
04678	2,4-Dinitrophenol	51-28-5	N.D.	11	1
04678	2,4-Dinitrotoluene	121-14-2	N.D.	1	1
04678	2,6-Dinitrotoluene	606-20-2	N.D.	0.5	1
04678	1,2-Diphenylhydrazine	122-66-7	N.D.	0.5	1
04678	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	2	1
04678	Fluoranthene	206-44-0	N.D.	0.1	1
04678	Fluorene	86-73-7	N.D.	0.1	1
04678	Hexachlorobenzene	118-74-1	N.D.	0.1	1
04678	Hexachlorobutadiene	87-68-3	N.D.	0.5	1
04678	Hexachlorocyclopentadiene	77-47-4	N.D.	5	1
04678	Hexachloroethane	67-72-1	N.D.	1	1
04678	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.1	1
04678	Isophorone	78-59-1	N.D.	0.5	1
04678	Naphthalene	91-20-3	N.D.	0.1	1
04678	Nitrobenzene	98-95-3	N.D.	0.5	1
04678	2-Nitrophenol	88-75-5	N.D.	0.5	1
04678	4-Nitrophenol	100-02-7	N.D.	11	1
04678	N-Nitrosodimethylamine	62-75-9	N.D.	2	1
04678	N-Nitroso-di-n-propylamine	621-64-7	N.D.	0.5	1
04678	N-Nitrosodiphenylamine	86-30-6	N.D.	0.5	1
	N-nitrosodiphenylamine decomp				
	diphenylamine. The result re				
	represents the combined total	-			
04678	Di-n-octylphthalate	117-84-0	N.D.	2	1
04678	Pentachlorophenol	87-86-5	N.D.	1	1
04678	Phenanthrene	85-01-8	N.D.	0.1	1
04678	Phenol	108-95-2	N.D.	0.5	1
04678	Pyrene	129-00-0	N.D.	0.1	1
04678	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.5	1
04678	2,4,6-Trichlorophenol	88-06-2	N.D.	0.5	1

mg/l

mg/l

SW-846 6010B



Analysis Report

LL Sample # WW 7640193

LL Group # 1511613 Account # 00721

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: Supply Well Water

101722001

Project Name: Project 101722001

Collected: 10/16/2014 11:30 by ED

Rettew Associates 3020 Columbia Avenue Submitted: 10/16/2014 18:05 Lancaster PA 17603-4011

Reported: 10/27/2014 12:36

2001W

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metala	3	SW-846 6010B	mg/l	mg/l	
07044	Antimony	7440-36-0	N.D.	0.0051	1
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07047	Beryllium	7440-41-7	N.D.	0.00067	1
07049	Cadmium	7440-43-9	N.D.	0.00033	1
07051	Chromium	7440-47-3	N.D.	0.0013	1
07053	Copper	7440-50-8	0.0053 J	0.0028	1
07055	Lead	7439-92-1	N.D.	0.0047	1
07061	Nickel	7440-02-0	N.D.	0.0016	1
07036	Selenium	7782-49-2	N.D.	0.0048	1
07066	Silver	7440-22-4	N.D.	0.0018	1
07022	Thallium	7440-28-0	N.D.	0.0051	1
07072	Zinc	7440-66-6	0.0244	0.0020	1
		SW-846 7470A	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/15.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor
10335	PPL/TCL Volatiles in Water	SW-846 8260B	1	Y142941AA	10/21/2014	15:42	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y142941AA	10/21/2014	15:42	Angela D Sneeringer	1
04678	TCL SW846 Semivolatiles/Waters	SW-846 8270C	1	14294WAG026	10/24/2014	01:32	William H Saadeh	1
00813	BNA Water Extraction	SW-846 3510C	1	14294WAG026	10/21/2014	22:10	Karen L Beyer	1
07044	Antimony	SW-846 6010B	1	142901848005	10/22/2014	19:00	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010B	1	142901848005	10/22/2014	19:00	Katlin N Cataldi	1
07047	Beryllium	SW-846 6010B	1	142901848005	10/22/2014	19:00	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	142901848005	10/22/2014	19:00	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	142901848005	10/22/2014	19:00	Katlin N Cataldi	1
07053	Copper	SW-846 6010B	1	142901848005	10/22/2014	19:00	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	142901848005	10/22/2014	19:00	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	142901848005	10/22/2014	19:00	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	142901848005	10/22/2014	19:00	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	142901848005	10/22/2014	19:00	Katlin N Cataldi	1
07022	Thallium	SW-846 6010B	1	142901848005	10/24/2014	05:23	Tara L Snyder	1
07072	Zinc	SW-846 6010B	1	142901848005	10/22/2014	19:00	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	142905713006	10/21/2014	11:48	Damary Valentin	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	142901848005	10/20/2014	11:20	Micaela L Dishong	1
	rec)							



Analysis Report

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Sample Description: Supply Well Water

101722001

LL Sample # WW 7640193 LL Group # 1511613 Account # 00721

Project Name: Project 101722001

Collected: 10/16/2014 11:30 by ED

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 10/16/2014 18:05 Reported: 10/27/2014 12:36

2001W

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	142905713006	10/20/2014	11:51	Micaela L Dishong	1
05713	WW SW846 Hg Digest	SW-846 7470A	2	142945713004	10/22/2014	00:30	Annamaria Kuhns	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: Trip Blank Water

101722001

LL Sample # WW 7640194 LL Group # 1511613 Account # 00721

Project Name: Project 101722001

Collected: 10/16/2014

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 10/16/2014 18:05 Reported: 10/27/2014 12:36

2001T

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846 82	60B	ug/l	ug/l	
10335	Acrolein	107-02-8	N.D.	40	1
10335	Acrylonitrile	107-13-1	N.D.	4	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1
10335	Bromoform	75-25-2	N.D.	0.5	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1
10335	Chloroethane	75-00-3	N.D.	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	N.D.	2	1
	2-Chloroethyl vinyl ether may no	ot be recovered	if acid was used to		
	preserve this sample.				
10335	Chloroform	67-66-3	N.D.	0.5	1
10335	Chloromethane	74-87-3	N.D.	0.5	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethene	127-18-4	N.D.	0.5	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1
10335	Trichloroethene	79-01-6	N.D.	0.5	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.5	1
10335	Vinyl Chloride	75-01-4	N.D.	0.5	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/15.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	PPL/TCL Volatiles in Water	SW-846 8260B	1	Y142941AA	10/21/2014 15:2	l Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y142941AA	10/21/2014 15:2	_	1



Analysis Report

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1511613

Reported: 10/27/14 at 12:36 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD <u>Max</u>
Batch number: Q142941AA	Sample	number(s):	7640183-7640	184,7640	187-764018	39		
Benzene	N.D.	25.	uq/kq	91	87	80-120	4	30
Ethylbenzene	N.D.	50.	ug/kg	89	87	80-120	2	30
Isopropylbenzene	N.D.	50.	uq/kq	87	85	76-120	2	30
Methyl Tertiary Butyl Ether	N.D.	25.	uq/kq	92	89	76-122	4	3.0
Naphthalene	N.D.	50.	uq/kq	82	80	64-120	3	30
Toluene	N.D.	50.	uq/kq	92	88	80-120	4	30
1,2,4-Trimethylbenzene	N.D.	50.	uq/kq	91	87	79-120	4	30
1,3,5-Trimethylbenzene	N.D.	50.	uq/kq	91	85	78-120	6	30
17373 II Imeeny i benzene	11. D.	50.	ag/ ng	31	05	70 120	J	50
Batch number: Q142951AA			7640185-7640					
Benzene	N.D.	25.	ug/kg	82	82	80-120	1	30
Naphthalene	N.D.	50.	ug/kg	74	75	64-120	1	30
Batch number: X142941AA	Sample	number(s):	7640190-7640	1192				
Acrolein	N.D.	20.	uq/kq	128*	116	58-122	9	30
Acrylonitrile	N.D.	4.	uq/kq	101	99	58-123	2	30
Benzene	N.D.	0.5	uq/kq	105	100	80-120	5	30
Bromodichloromethane	N.D.	1.	uq/kq	96	93	75-120	3	30
Bromoform	N.D.	1.	ug/kg	90	87	70-126	4	30
Bromomethane	N.D.	2.	ua/ka	85	78	32-162	9	30
Carbon Tetrachloride	N.D.	1.	ug/kg	103	96	69-130	7	30
Chlorobenzene	N.D.	1.	uq/kq	97	92	80-120	6	30
Chloroethane	N.D.	2.	ug/kg	92	85	17-171	8	30
Chloroform	N.D.	1.	ug/kg	105	100	80-125	5	30
Chloromethane	N.D.	2.	ug/kg	95	88	56-120	8	30
Dibromochloromethane	N.D.	1.	ug/kg	93	89	77-120	4	30
1,1-Dichloroethane	N.D.	1.	ug/kg ug/kg	104	101	80-122	3	30
1,2-Dichloroethane	N.D.	1.	ug/kg ug/kg	104	101	77-130	3	30
1,1-Dichloroethene					98		5	
	N.D.	1.	ug/kg	103		73-129		30
cis-1,2-Dichloroethene	N.D.	1.	ug/kg	99	96	80-120	3	30
trans-1,2-Dichloroethene	N.D.	1.	ug/kg	103	98	80-129	4	30
1,2-Dichloropropane	N.D.	1.	ug/kg	104	99	80-120	5	30
cis-1,3-Dichloropropene	N.D.	1.	ug/kg	95	92	74-120	3	30
trans-1,3-Dichloropropene	N.D.	1.	ug/kg	99	95	76-120	3	30
Ethylbenzene	N.D.	1.	ug/kg	98	92	80-120	7	30
Methylene Chloride	N.D.	2.	ug/kg	105	101	80-124	4	30
1,1,2,2-Tetrachloroethane	N.D.	1.	ug/kg	99	93	71-123	6	30
Tetrachloroethene	N.D.	1.	ug/kg	96	89	78-120	7	30
Toluene	N.D.	1.	ug/kg	99	94	80-120	5	30
1,1,1-Trichloroethane	N.D.	1.	ug/kg	95	89	63-135	7	30
1,1,2-Trichloroethane	N.D.	1.	ug/kg	9 7	92	80-120	5	30
Trichloroethene	N.D.	1.	ug/kg	102	97	80-125	4	30
Trichlorofluoromethane	N.D.	2.	ug/kg	93	86	58-133	8	30

^{*-} Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



80-122

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1511613
Reported: 10/27/14 at 12:36 PM

R∈	eported: 10/27/14 at 12	2:36 PM Blank	Blank	Report	LCS	LCSD	LCS/LCSD		RPD
Αn	alysis Name	Result	MDL	Units	%REC	%REC	<u>Limits</u>	RPD	Max
	nyl Chloride	N.D.	1.	uq/kq	93	86	59-120	8	30
	lene (Total)	N.D.	1.	ug/kg	93	88	80-120	5	30
- 2	,								
	tch number: Y142941AA			7640193-7640					
	rolein	N.D.	40.	ug/1	82	81	59-120	1	30
	rylonitrile	N.D.	4.	ug/1	83	83	62-120	0	30
	nzene	N.D.	0.5	ug/1	106	108	78-120	2	30
	omodichloromethane	N.D.	0.5	$\mathrm{ug}/1$	97	98	73-120	1	30
	omoform	N.D.	0.5	ug/1	90	88	61-120	2	30
	omomethane	N.D.	0.5	ug/1	59	62	53-130	6	30
	rbon Tetrachloride	N.D.	0.5	ug/1	103	104	74-130	1	30
	lorobenzene	N.D.	0.5	ug/1	100	102	80-120	1	30
	loroethane	N.D.	0.5	${ m ug}/1$	59	62	56-120	5	30
	Chloroethyl Vinyl Ether	N.D.	2.	ug/1	82	83	62-128	2	30
	loroform	N.D.	0.5	ug/1	103	105	80-122	2	30
	loromethane	N.D.	0.5	ug/1	91	94	63-120	3	30
	bromochloromethane	N.D.	0.5	ug/1	99	100	72-120	1	30
	1-Dichloroethane	N.D.	0.5	ug/1	103	113	80-120	9	30
	2-Dichloroethane	N.D.	0.5	ug/1	103	105	65-135	2	30
	1-Dichloroethene	N.D.	0.5	ug/1	103	100	76-124	3	30
	s-1,2-Dichloroethene	N.D.	0.5	ug/1	105	108	80-120	3	30
	ans-1,2-Dichloroethene	N.D.	0.5	ug/1	104	106	80-120	2	30
	2-Dichloropropane	N.D.	0.5	ug/1	105	108	80-120	3	30
	s-1,3-Dichloropropene	N.D.	0.5	ug/1	99	101	80-120	2	30
	ans-1,3-Dichloropropene	N.D.	0.5	ug/1	99	101	76-120	2	30
	hylbenzene	N.D.	0.5	ug/1	98	101	79-120	2	30
	thylene Chloride	N.D.	2.	ug/1	103	103	80-120	0	30
	1,2,2-Tetrachloroethane	N.D.	0.5	$\frac{\text{ug}}{1}$	89	91	70-120	3	30
	trachloroethene	N.D.	0.5	ug/l	103 103	104	80-120	1 3	30 30
	luene	N.D.	0.5	ug/l		106	80-120	3 4	
	1,1-Trichloroethane	N.D.	0.5	ug/l	82	85	66-126	_	30
	1,2-Trichloroethane	N.D.	0.5	ug/l	97	99	80-120	2 2	30 30
	ichloroethene ichlorofluoromethane	N.D.	0.5 0.5	$\frac{\text{ug}}{1}$	103	105 77	80-120	4	30
		N.D.		$\frac{\text{ug}}{1}$	81 87	87	58-135	0	30
	nyl Chloride	N.D.	0.5	ug/l	99		63-120	2	30
АУ	lene (Total)	N.D.	0.5	ug/l	99	101	80-120	4	30
Ва	tch number: 14290SLB026	Sample nu	mber(s): 7	7640190-7640	191				
Ac	enaphthene	N.D.	3.	uq/kq	97		83-111		
Ac	enaphthylene	N.D.	3.	ug/kg	109		83-127		
An	thracene	N.D.	3.	ug/kg	100		82-118		
Ве	nzidine	N.D.	700.	ug/kg	47		21-78		
Ве	nzo(a) anthracene	N.D.	3.	ug/kg	98		76-119		
Вe	nzo(a)pyrene	N.D.	3.	ug/kg	101		84-122		
Вe	nzo(b)fluoranthene	N.D.	3.	ug/kg	101		78-129		
Ве	nzo(g,h,i)perylene	N.D.	3.	ug/kg	98		77-121		
Ве	nzo(k) fluoranthene	N.D.	3.	ug/kg	106		79-120		
4 -	Bromophenyl-phenylether	N.D.	17.	ug/kg	98		84-120		
Bu	tylbenzylphthalate	N.D.	67.	ug/kg	95		80-118		
Di	-n-butylphthalate	N.D.	67.	ug/kg	97		84-120		
	Chloro-3-methylphenol	N.D.	17.	ug/kg	99		79-127		
	s(2-Chloroethoxy)methane	N.D.	17.	ug/kg	102		65-123		
	s(2-Chloroethyl)ether	N.D.	17.	ug/kg	94		77-115		
	s(2-Chloroisopropyl)ether	N.D.	17.	ug/kg	96		73-114		
	Chloronaphthalene	N.D.	7.	ug/kg	87		63-146		
2	Chlorophenol	ND	17	ua/ka	94		80-122		

*- Outside of specification

2-Chlorophenol

(1) The result for one or both determinations was less than five times the LOQ.

N.D.

(2) The unspiked result was more than four times the spike added.

ug/kg

Analysis Name

LCS/LCSD

<u>Limits</u>

RPD

<u>Max</u>

RPD

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1511613 Reported: 10/27/14 at 12:36 PM

Blank

MDL

Report

<u>Units</u>

LCS

%REC

LCSD

%REC

IIIGI J DID IIGIIG	MODULO.	<u> </u>	<u> </u>	01120	01010	<u> HIMITOD</u>	111 2	-101
4-Chlorophenyl-phenylether	N.D.	17.	ug/kg	98		83-115		
Chrysene	N.D.	3.	ug/kg	100		77-116		
Dibenz(a,h) anthracene	N.D.	3.	ug/kg	96		81-123		
1,2-Dichlorobenzene	N.D.	17.	ug/kg	94		79-112		
1,3-Dichlorobenzene	N.D.	17.	ug/kg	91		79-113		
1,4-Dichlorobenzene	N.D.	17.	ug/kg	90		79-112		
3,3'-Dichlorobenzidine	N.D.	100.	ug/kg	62		10-125		
2,4-Dichlorophenol	N.D.	17.	ug/kg	101		81-123		
Diethylphthalate	N.D.	67.	ug/kg	96		81-118		
2,4-Dimethylphenol	N.D.	17.	ug/kg	95		83-120		
Dimethylphthalate	N.D.	67.	ug/kg	96		82-113		
4,6-Dinitro-2-methylphenol	N.D.	170.	ug/kg	93		67-131		
2,4-Dinitrophenol	N.D.	300.	ug/kg	91		42-131		
2,4-Dinitrotoluene	N.D.	67.	ug/kg	98		81-122		
2,6-Dinitrotoluene	N.D.	17.	ug/kg	100		83-120		
1,2-Diphenylhydrazine	N.D.	17.	ug/kg	99		78-122		
bis(2-Ethylhexyl)phthalate	N.D.	67.	ug/kg	96		81-121		
Fluoranthene	N.D.	3.	uq/kq	98		75-118		
Fluorene	N.D.	3.	ug/kg	103		86-118		
Hexachlorobenzene	N.D.	3.	ug/kg	89		80-121		
Hexachlorobutadiene	N.D.	17.	ug/kg	93		78-121		
Hexachlorocyclopentadiene	N.D.	170.	ug/kg	117		60-157		
Hexachloroethane	N.D.	33.	ug/kg	89		78-114		
Indeno(1,2,3-cd)pyrene	N.D.	3.	ug/kg	93		76-122		
Isophorone	N.D.	17.	ug/kg	109		83-119		
Naphthalene	N.D.	3.	ug/kg	98		83-112		
Nitrobenzene	N.D.	17.	ug/kg	99		80-115		
2-Nitrophenol	N.D.	17.	ug/kg	98		83-120		
4-Nitrophenol	N.D.	170.	ug/kg	75		64-121		
N-Nitroso-di-n-propylamine	N.D.	17.	ug/kg	90		70-119		
N-Nitrosodimethylamine	N.D.	67.	ug/kg	99		72-110		
N-Nitrosodiphenylamine	N.D.	17.	ug/kg	96		83-118		
Di-n-octylphthalate	N.D.	67.	ug/kg	107		82-134		
Pentachlorophenol	N.D.	33.	ug/kg	85		46-133		
Phenanthrene	N.D.	3.	ug/kg	9 7		80-114		
Phenol	N.D.	17.	uq/kq	101		75-117		
Pyrene	N.D.	3.	uq/kq	101		81-114		
1,2,4-Trichlorobenzene	N.D.	17.	uq/kq	98		83-113		
2,4,6-Trichlorophenol	N.D.	17.	ug/kg	99		81-123		
Batch number: 14293SLF026	Sample nu	mber(s): 7	640183-764	0186				
Anthracene	N.D.	3.	uq/kq	99		82-118		

Batch number: 14293SLF026	Sample nu	mber(s): 7	640183-764	0186	
Anthracene	N.D.	3.	uq/kq	99	82-118
Benzo(a) anthracene	N.D.	3.	ug/kg	97	76-119
Benzo(a)pyrene	N.D.	3.	ug/kg	100	84-122
Benzo(b) fluoranthene	N.D.	3.	ug/kg	103	78-129
Benzo(q,h,i)perylene	N.D.	3.	uq/kq	98	77-121
Chrysene	N.D.	3.	ug/kg	102	77-116
Fluorene	N.D.	3.	uq/kq	97	86-118
Phenanthrene	N.D.	3.	uq/kq	95	80-114
Pyrene	N.D.	3.	ug/kg	94	81-114
Batch number: 14294SLC026	Sample nu	mber(s): 7	640192		
Acenaphthene	N.D.	3.	uq/kq	98	83-111
Acenaphthylene	N.D.	3.	uq/kq	114	83-127
Anthracene	N.D.	3.	ug/kg	102	82-118
Benzidine	N.D.	700.	ug/kg	45	21-78

^{*-} Outside of specification

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.



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Quality Control Summary

Client Name: Rettew Associates Group Number: 1511613
Reported: 10/27/14 at 12:36 PM

Reported: 10/27/14 at 12:	36 PM							
	Blank	Blank	Report	LCS	LCSD	LCS/LCSD		RPD
<u>Analysis Name</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	%REC	%REC	<u>Limits</u>	<u>RPD</u>	<u>Max</u>
Benzo (a) anthracene	N.D.	3.	uq/kq	104		76-119		
Benzo (a) pyrene	N.D.	3.	ug/kg	105		84-122		
Benzo(b) fluoranthene	N.D.	3.	ug/kg	111		78-129		
Benzo(q,h,i)perylene	N.D.	3.	ug/kg	103		77-121		
Benzo(k) fluoranthene	N.D.	3.	ug/kg	105		79-120		
4-Bromophenyl-phenylether	N.D.	17.	ug/kg	102		84-120		
Butylbenzylphthalate	N.D.	67.	ug/kg	105		80-118		
Di-n-butylphthalate	N.D.	67.	ug/kg	101		84-120		
4-Chloro-3-methylphenol	N.D.	17.	ug/kg	104		79-127		
bis(2-Chloroethoxy) methane	N.D.	17.	ug/kg	101		65-123		
bis(2-Chloroethyl)ether	N.D.	17.		93		77-115		
	N.D.	17.	ug/kg	94		77-113		
bis(2-Chloroisopropyl)ether	N.D.	7.	ug/kg	93		63-146		
2-Chloronaphthalene			ug/kg					
2-Chlorophenol	N.D.	17.	ug/kg	96		80-122		
4-Chlorophenyl-phenylether	N.D.	17.	ug/kg	102		83-115		
Chrysene	N.D.	3.	ug/kg	108		77-116		
Dibenz(a,h)anthracene	N.D.	3.	ug/kg	105		81-123		
1,2-Dichlorobenzene	N.D.	17.	ug/kg	94		79-112		
1,3-Dichlorobenzene	N.D.	17.	ug/kg	90		79-113		
1,4-Dichlorobenzene	N.D.	17.	ug/kg	92		79-112		
3,3'-Dichlorobenzidine	N.D.	100.	ug/kg	64		10-125		
2,4-Dichlorophenol	N.D.	17.	ug/kg	106		81-123		
Diethylphthalate	N.D.	67.	uq/kq	102		81-118		
2,4-Dimethylphenol	N.D.	17.	ug/kg	100		83-120		
Dimethylphthalate	N.D.	67.	ug/kg	99		82-113		
4,6-Dinitro-2-methylphenol	N.D.	170.	ug/kg	99		67-131		
2,4-Dinitrophenol	N.D.	300.	ug/kg	82		42-131		
2,4-Dinitrotoluene	N.D.	67.	uq/kq	102		81-122		
2,6-Dinitrotoluene	N.D.	17.	ug/kg	107		83-120		
1,2-Diphenylhydrazine	N.D.	17.	uq/kq	103		78-122		
bis(2-Ethylhexyl)phthalate	N.D.	67.	uq/kq	105		81-121		
Fluoranthene	N.D.	3.	uq/kq	99		75-118		
Fluorene	N.D.	3.	ug/kg	103		86-118		
Hexachlorobenzene	N.D.	3.	ug/kg	96		80-121		
Hexachlorobutadiene	N.D.	17.		103		78-121		
Hexachlorocyclopentadiene	N.D.	170.	ug/kg	134		60-157		
		33.	ug/kg	93				
Hexachloroethane	N.D.		ug/kg			78-114		
Indeno(1,2,3-cd)pyrene	N.D.	3.	ug/kg	102		76-122		
Isophorone	N.D.	17.	ug/kg	110		83-119		
Naphthalene	N.D.	3.	ug/kg	101		83-112		
Nitrobenzene	N.D.	17.	ug/kg	105		80-115		
2-Nitrophenol	N.D.	17.	ug/kg	102		83-120		
4-Nitrophenol	N.D.	170.	ug/kg	96		64-121		
N-Nitroso-di-n-propylamine	N.D.	17.	ug/kg	89		70-119		
N-Nitrosodimethylamine	N.D.	67.	ug/kg	90		72-110		
N-Nitrosodiphenylamine	N.D.	17.	ug/kg	101		83-118		
Di-n-octylphthalate	N.D.	67.	ug/kg	114		82-134		
Pentachlorophenol	N.D.	33.	ug/kg	92		46-133		
Phenanthrene	N.D.	3.	ug/kg	98		80-114		
Phenol	N.D.	17.	ug/kg	93		75-117		
Pyrene	N.D.	3.	ug/kg	99		81-114		
1,2,4-Trichlorobenzene	N.D.	17.	ug/kg	105		83-113		
2,4,6-Trichlorophenol	N.D.	17.	ug/kg	101		81-123		
			2. 2					
Batch number: 14294WAG026	Sample nu	umber(s): 76	40193					
Acenaphthene	N.D.	0.1	uq/l	104	103	80-112	1	30
			<u> </u>					

^{*-} Outside of specification

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.



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Quality Control Summary

Client Name: Rettew Associates Group Number: 1511613 Reported: 10/27/14 at 12:36 PM

Reported: 10/27/14 at 12:36 PM									
	Blank	Blank	Report	LCS	LCSD	LCS/LCSD		RPD	
<u>Analysis Name</u>	<u>Result</u>	MDL	<u>Units</u>	%REC	%REC	<u>Limits</u>	RPD	<u>Max</u>	
Acenaphthylene	N.D.	0.1	ug/l	111	109	84-125	2	30	
Anthracene	N.D.	0.1	ug/1	109	106	82-116	3	30	
Benzidine	N.D.	20.	$\mathrm{ug}/1$	63	59	20-94	6	30	
Benzo (a) anthracene	N.D.	0.1	$\mathrm{ug}/1$	113	111	81-126	1	30	
Benzo (a) pyrene	N.D.	0.1	ug/1	115	113	82-116	2	30	
Benzo(b) fluoranthene	N.D.	0.1	uq/1	110	108	82-121	1	30	
Benzo(g,h,i)perylene	N.D.	0.1	uq/1	104	101	76-128	3	30	
Benzo(k) fluoranthene	N.D.	0.1	uq/1	114	112	81-122	2	30	
4-Bromophenyl-phenylether	N.D.	0.5	uq/1	101	98	82-118	3	30	
Butylbenzylphthalate	N.D.	2.	uq/1	110	110	73-122	0	30	
Di-n-butylphthalate	N.D.	2.	uq/l	102	100	80-119	2	30	
4-Chloro-3-methylphenol	N.D.	0.5	uq/l	108	108	78-118	0	30	
bis(2-Chloroethoxy)methane	N.D.	0.5	ug/l	105	103	77-115	2	30	
bis(2-Chloroethyl)ether	N.D.	0.5	ug/l	105	103	78-112	2	30	
bis(2-Chloroisopropyl)ether	N.D.	0.5	ug/l	128	127	54-128	1	30	
2-Chloronaphthalene	N.D.	0.4	ug/1	102	100	66-125	1	30	
	N.D.	0.4		104	103	76-111	1	30	
2-Chlorophenol			ug/l						
4-Chlorophenyl-phenylether	N.D.	0.5	ug/l	100	98	78-119	2	30	
Chrysene	N.D.	0.1	ug/1	117	117	81-120	0	30	
Dibenz(a,h)anthracene	N.D.	0.1	ug/1	105	103	80-130	2	30	
1,2-Dichlorobenzene	N.D.	0.5	ug/1	99	98	62-116	2	30	
1,3-Dichlorobenzene	N.D.	0.5	ug/1	94	93	57-115	1	30	
1,4-Dichlorobenzene	N.D.	0.5	ug/1	95	95	60-115	0	30	
3,3'-Dichlorobenzidine	N.D.	2.	ug/1	78	74	39-111	5	30	
2,4-Dichlorophenol	N.D.	0.5	$\mathrm{ug}/1$	104	104	84-119	0	30	
Diethylphthalate	N.D.	2.	$\mathrm{ug}/1$	93	91	70-118	2	30	
2,4-Dimethylphenol	N.D.	0.5	$\mathrm{ug}/1$	104	102	75-110	1	30	
Dimethylphthalate	N.D.	2.	ug/1	79	77	43-128	2	30	
4,6-Dinitro-2-methylphenol	N.D.	5.	ug/1	90	92	63-131	3	30	
2,4-Dinitrophenol	N.D.	10.	uq/1	54	60	39-130	11	30	
2,4-Dinitrotoluene	N.D.	1.	uq/1	111	110	84-126	1	30	
2,6-Dinitrotoluene	N.D.	0.5	uq/1	111	111	81-124	0	30	
1,2-Diphenylhydrazine	N.D.	0.5	uq/1	107	105	74-124	2	30	
bis(2-Ethylhexyl)phthalate	N.D.	2.	uq/1	115	115	78-124	0	30	
Fluoranthene	N.D.	0.1	ug/l	108	106	82-121	2	30	
Fluorene	N.D.	0.1	uq/l	104	104	80-117	0	30	
Hexachlorobenzene	N.D.	0.1	ug/l	94	92	80-119	2	30	
Hexachlorobutadiene	N.D.	0.5	uq/l	83	82	55-124	ī	30	
Hexachlorocyclopentadiene	N.D.	5.	uq/l	77	85	18-130	10	30	
Hexachloroethane	N.D.	1.	ug/l	84	84	55-109	1	30	
Indeno(1,2,3-cd)pyrene	N.D.	0.1	ug/l	100	98	80-126	2	30	
Isophorone	N.D.	0.5	ug/l	116	116	81-124	1	30	
Naphthalene	N.D.	0.1	ug/1	100	99	75-108	1	30	
Nitrobenzene	N.D.	0.5	ug/l	115	115	77-119	1	30	
		0.5		112	111	82-121	1	30	
2-Nitrophenol	N.D.		ug/l						
4-Nitrophenol	N.D.	10.	ug/1	53	52	20-89	2	30	
N-Nitroso-di-n-propylamine	N.D.	0.5	ug/1	108	106	71-117	2	30	
N-Nitrosodimethylamine	N.D.	2.	ug/1	85	84	38-98	2	30	
N-Nitrosodiphenylamine	N.D.	0.5	ug/1	100	98	80-115	2	30	
Di-n-octylphthalate	N.D.	2.	ug/1	113	112	78-129	1	30	
Pentachlorophenol	N.D.	1.	ug/1	76	75	60-130	1	30	
Phenanthrene	N.D.	0.1	ug/l	105	103	81-114	2	30	
Phenol	N.D.	0.5	$\mathrm{ug}/1$	63	62	25-80	2	30	
Pyrene	N.D.	0.1	ug/1	106	105	81-112	1	30	
1,2,4-Trichlorobenzene	N.D.	0.5	ug/l	100	99	68-116	1	30	
2,4,6-Trichlorophenol	N.D.	0.5	ug/l	103	103	84-119	0	30	

^{*-} Outside of specification

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.



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Quality Control Summary

Client Name: Rettew Associates Group Number: 1511613

Reported: 10/27/14 at 12:36 PM

Reported. 10/2//11 at 12.	Blank	Blank	Report	LCS	LCSD	LCS/LCSD		RPD		
<u>Analysis Name</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	<u>%REC</u>	<u>%REC</u>	<u>Limits</u>	<u>RPD</u>	<u>Max</u>		
Batch number: 142901848005										
Antimony	N.D.	0.0051	mg/1	101		88-111				
Arsenic	N.D.	0.0072	mg/1	105		90-116				
Beryllium	N.D.	0.00067	mg/l	102		90-111				
Cadmium	N.D.	0.00033	mg/1	100		90-112				
Chromium	N.D.	0.0013	mg/1	99		90-110				
Copper	N.D.	0.0028	mg/1	102		90-112				
Lead	N.D.	0.0047	mg/1	98		88-116				
Nickel	N.D.	0.0016	mg/1	103		90-117				
Selenium	N.D.	0.0048	mg/l	99		89-113				
Silver	N.D.	0.0018	mg/l	96		80-120				
Thallium	N.D.	0.0051	mg/1	106		85-120				
Zinc	0.0041 J	0.0020	mg/1	101		90-110				
Batch number: 142905708001 Sample number(s): 7640190-7640192										
Antimony	N.D.	0.330	mg/kg	108		80-120				
Arsenic	N.D.	0.640	mg/kg	107		80-120				
Beryllium	N.D.	0.0670	mg/kg	102		80-120				
Cadmium	0.0370 J	0.0330	mg/kg	105		80-120				
Chromium	N.D.	0.110	mg/kg	102		80-120				
Copper	N.D.	0.330	mg/kg	105		80-120				
Lead	N.D.	0.500	mg/kg	107		80-120				
Nickel	N.D.	0.150	mg/kg	107		80-120				
Selenium	0.448 J	0.440	mg/kg	109		80-120				
Silver	N.D.	0.190	mg/kg	89		80-120				
Thallium	N.D.	0.800	mg/kg	111		80-120				
Zinc	1.35 J	0.260	mg/kg	108		80-120				
Batch number: 142905711001	Sample numbe	er(s): 764	0190,7640	192						
Mercury	0.0622 J	0.0100	mg/kg	98		80-120				
Batch number: 142905713006	Sample number									
Mercury	N.D.	0.00006	mg/I	82		80-120				
		0								
Batch number: 142935711002	Sample number									
Mercury	N.D.	0.0100	mg/kg	92		80-120				
Batch number: 14294820005A	Sample numbe	er(s): 764	0183-7640	192						
Moisture	<u>-</u>	,-		100		99-101				

Sample Matrix Quality Control Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD <u>Limits</u>	RPD	RPD <u>MAX</u>	BKG Conc	DUP <u>Conc</u>	DUP RPD	Dup RPD <u>Max</u>
Batch number: 14290SLB026	Sample:	number(s)	: 7640190	-764019	1 UNSP	K: P637266			
Acenaphthene	74	71	55-132	3	30				
Acenaphthylene	109	110	53-143	1	30				
Anthracene	98	95	42-147	3	3 0				

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



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Quality Control Summary

Client Name: Rettew Associates Group Number: 1511613

Reported: 10/27/14 at 12:36 PM

Sample Matrix Quality Control Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

	MS	MSD	MS/MSD		RPD	BKG	DUP	DUP	Dup RPD
<u>Analysis Name</u>	%REC	%REC	<u>Limits</u>	RPD	<u>MAX</u>	Conc	<u>Conc</u>	RPD	<u>Max</u>
Benzidine	49	50	21-64	3	30				
Benzo (a) anthracene	97	86	32-150	10	30				
Benzo(a)pyrene	100	98	36-151	2	30				
Benzo (b) fluoranthene	97	8.5	29-150	12	30				
Benzo(q,h,i)perylene	99	92	41-147	8	3.0				
Benzo(k) fluoranthene	107	104	35-146	3	3.0				
4-Bromophenyl-phenylether	95	95	58-142	0	3.0				
Butylbenzylphthalate	93	95	50-137	1	30				
Di-n-butylphthalate	95	95	57-130	0	30				
4-Chloro-3-methylphenol	99	100	39-150	1	30				
bis(2-Chloroethoxy)methane	101	101	54-128	0	30				
bis(2-Chloroethyl)ether	100	92	69-114	9	30				
bis(2-Chloroisopropyl)ether	101	93	62-120	9	30				
2-Chloronaphthalene	84	88	40-156	4	30				
2-Chlorophenol	100	91	35-152	10	30				
4-Chlorophenyl-phenylether	97	97	56-130	0	30				
Chrysene	97	88	28-146	9	30				
Dibenz(a,h) anthracene	93	91	54-142	2	30				
1,2-Dichlorobenzene	-927	-1012	45-133	64*	30				
1, 2-DICHTOTODEHZEHE	(2)	(2)	45-133	64	30				
1,3-Dichlorobenzene	99	87	45-129	12	30				
1,4-Dichlorobenzene	89	77	44-132	13	30				
3,3'-Dichlorobenzidine	54	53	10-143	2	30				
	105	102	39-153	3	30				
2,4-Dichlorophenol Diethylphthalate	94	96	54-127	3	30				
2,4-Dimethylphenol	93	92	38-140	1	30				
	93	92 97		$\overset{\scriptscriptstyle\perp}{4}$	30				
Dimethylphthalate			45-135	9	30				
4,6-Dinitro-2-methylphenol	83	76	10-148						
2,4-Dinitrophenol	72 96	58 98	20-143	22 2	30 30				
2,4-Dinitrotoluene			39-144						
2,6-Dinitrotoluene	99	103	54-134	4	30				
1,2-Diphenylhydrazine	97	97	67-128	0	30				
bis(2-Ethylhexyl)phthalate	95	94	52-138	1	30				
Fluoranthene	74	45	41-135	26	30				
Fluorene	81	76	55-128	5	30				
Hexachlorobenzene	89	88	46-132	1	30				
Hexachlorobutadiene	95	93	65-125	2	30				
Hexachlorocyclopentadiene	75	92	10-153	20	30				
Hexachloroethane	94	84	24-138	11	30				
Indeno(1,2,3-cd)pyrene	93	8.5	44-147	9	30				
Isophorone	110	107	68-119	3	30				
Naphthalene	27*	20*	44-142	7	30				
Nitrobenzene	100	96	41-141	4	30				
2-Nitrophenol	96	96	45-146	0	3 0				
4-Nitrophenol	71	73	25-142	2	30				
N-Nitroso-di-n-propylamine	93	87	58-126	8	3 0				
N-Nitrosodimethylamine	102	84	61-110	19	30				
N-Nitrosodiphenylamine	97	97	59-135	1	30				
Di-n-octylphthalate	107	104	54-151	3	30				
Pentachlorophenol	82	80	23-145	3	30				
Phenanthrene	32*	4 *	42-141	25	30				
Phenol	108	99	61-130	9	3 0				

- *- Outside of specification
- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



Analysis Report

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1511613

Reported: 10/27/14 at 12:36 PM

Sample Matrix Quality Control Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP <u>Conc</u>	DUP RPD	Dup RPD Max
Pyrene	85	65	37-140	18	30	COHE	COHE	KED	MGA
1,2,4-Trichlorobenzene	102	99	50-139	2	30				
2,4,6-Trichlorophenol	97	95	60-136	2	30				
Z, 4, 0 III chilorophenoi	21	23	00 130	4	20				
Batch number: 14293SLF026	Sample					PK: 7640183			
Anthracene	94	99	42-147	5	30				
Benzo (a) anthracene	94	95	32-150	1	30				
Benzo (a) pyrene	97	97	36-151	0	30				
Benzo(b)fluoranthene	102	99	29-150	3	30				
Benzo(g,h,i)perylene	95	96	41-147	2	30				
Chrysene	98	101	28-146	3	30				
Fluorene	9 4	97	55-128	2	30				
Phenanthrene	91	96	42-141	5	30				
Pyrene	91	93	37-140	2	30				
T + 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	~ 1	1 /			B C 4 0 1	0.0			
Batch number: 14294SLC026): 7640192			.92			
Acenaphthene	92	99	55-132	7	30				
Acenaphthylene	104	115	53-143	10	30				
Anthracene	96	104	42-147	8	30				
Benzidine	0*	0*	21-64	0	30				
Benzo (a) anthracene	95	100	32-150	6	30				
Benzo(a) pyrene	100	103	36-151	4	30				
Benzo (b) fluoranthene	106	108	29-150	1	30				
Benzo(g,h,i)perylene	97	100	41-147	2	30				
Benzo(k) fluoranthene	100	105	35-146	5	30				
4-Bromophenyl-phenylether	96	101	58-142	6	30				
Butylbenzylphthalate	99	103	50-137	5	30				
Di-n-butylphthalate	94	102	57-130	7	30				
4-Chloro-3-methylphenol	96	103	39-150	7	30				
bis(2-Chloroethoxy)methane	94	97	54-128	4	30				
bis(2-Chloroethyl)ether	87	97	69-114	11	30				
bis(2-Chloroisopropyl)ether	89	96	62-120	7	30				
2-Chloronaphthalene	88	93	40-156	5	30				
2-Chlorophenol	93	100	35-152	7	30				
4-Chlorophenyl-phenylether	92	102	56-130	10	30				
Chrysene	100	106	28-146	6	30				
Dibenz(a,h) anthracene	97	102	54-142	5	30				
1,2-Dichlorobenzene	91	96	45-133	6	30				
1,3-Dichlorobenzene	88	97	45-129	10	30				
1,4-Dichlorobenzene	88	96	44-132	9	30				
3,3'-Dichlorobenzidine	56	67	10-143	17	30				
2,4-Dichlorophenol	96	104	39-153	8	3 0				
Diethylphthalate	94	102	54-127	8	30				
2,4-Dimethylphenol	75	88	38-140	16	3 0				
Dimethylphthalate	94	100	45-135	7	30				
4,6-Dinitro-2-methylphenol	93	105	10-148	13	30				
2,4-Dinitrophenol	80	87	20-143	8	30				
2,4-Dinitrotoluene	94	104	39-144	10	30				
2,6-Dinitrotoluene	99	109	54-134	10	30				
1,2-Diphenylhydrazine	98	106	67-128	8	30				
bis(2-Ethylhexyl)phthalate	97	103	52-138	7	30				
Fluoranthene	92	99	41-135	7	30				

- *- Outside of specification
- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1511613

Reported: 10/27/14 at 12:36 PM

Sample Matrix Quality Control Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

	MS	MSD	MS/MSD		RPD	BKG	DUP	DUP	Dup RPD
<u>Analysis Name</u>	%REC	%REC	<u>Limits</u>	<u>RPD</u>	<u>MAX</u>	<u>Conc</u>	<u>Conc</u>	<u>RPD</u>	Max
Fluorene	94	104	55-128	9	3 0				
Hexachlorobenzene	91	96	46-132	5	30				
Hexachlorobutadiene	94	100	65-125	6	30				
Hexachlorocyclopentadiene	117	132	10-153	12	30				
Hexachloroethane	91	99	24-138	8	30				
Indeno(1,2,3-cd)pyrene	97	99	44-147	2	3.0				
Isophorone	103	107	68-119	$\overline{4}$	30				
Naphthalene	94	98	44-142	$\overline{4}$	30				
Nitrobenzene	95	101	41-141	6	30				
2-Nitrophenol	94	100	45-146	6	30				
4-Nitrophenol	89	97	25-142	8	30				
N-Nitroso-di-n-propylamine	85	94	58-126	10	30				
N-Nitrosodimethylamine	89	95	61-110	7	30				
	89	100		12	30				
N-Nitrosodiphenylamine			59-135						
Di-n-octylphthalate	106	112	54-151	6	30				
Pentachlorophenol	38	49	23-145	26	30				
Phenanthrene	93	101	42-141	8	30				
Phenol	89	95	61-130	7	30				
Pyrene	94	98	37-140	5	30				
1,2,4-Trichlorobenzene	96	101	50-139	5	30				
2,4,6-Trichlorophenol	80	93	60-136	15	30				
Batch number: 142901848005	Sample	number/a	: 7640193	IIMCDK	. D630	712 BKG: P6	30712		
Antimony	104	103	81-122	0	20	N.D.	N.D.	0 (1)	20
Arsenic	105	106	81-123	1	20	N.D.	N.D.	0 (1)	20
	104	103	87-114	1	20	N.D.	N.D.	0 (1)	20
Beryllium Cadmium			75-122	0	20				20
	102	102		_		N.D.	N.D.		
Chromium	102	100	76-120	1	20	N.D.	N.D.	0 (1)	20
Copper	104	103	86-122	1	20	N.D.	N.D.	0 (1)	20
Lead	101	99	75-125	2	20	N.D.	N.D.	0 (1)	20
Nickel	104	104	79-123	0	20	N.D.	N.D.	0 (1)	20
Selenium	99	96	75-125	3	20	0.0054 J		200* (1)	20
Silver	98	97	75-125	0	20	N.D.	N.D.	0 (1)	20
Thallium	106	106	75-125	0	20	N.D.	N.D.	0 (1)	20
Zinc	107	100	80-125	6	20	0.0062 J	0.0046 J	31* (1)	20
Batch number: 142905708001	Sample	number(s)	: 7640190	-76401	92 UNSI	PK: P64036	BKG: P6403	61	
Antimony	68*	84	75-125	15	20	9.91	5.55	56* (1)	20
Arsenic	99	103	75-125	1	20	8.70	7.10	20 (1)	20
Beryllium	104	105	83-119	1	20	0.312 J		16 (1)	20
Cadmium	129*	95	75-120	32*	20	N.D.	0.241 J	200* (1)	20
Chromium	58*	102	75-125	16	20	34.9	47.4	30*	20
Copper	934 (2)	-9 (2)	75-125	93*	20	136	80.8	51*	20
Lead	-2386	-4241	75-125	14	20	2,410		39*	20
Lead	(2)	(2)	75-125	14	20	2,410	1,620	39"	20
Nickel	96	109	75-125	8	20	22.3	16.3	31*	20
Selenium	78	50*	75-125	46*	20	N.D.	N.D.	0 (1)	20
Silver	95	91	75-125	6	20	0.194 J		11 (1)	20
Thallium	90	91	78-125	1	20	2.11 J		37* (1)	20
Zinc	233*	61*	75-125	41*	20	137	115	18	20
2110	٠٠٠٠٠	0 T	13-123	- T	40	131	117	ΤΟ.	20

Batch number: 142905711001 Sample number(s): 7640190,7640192 UNSPK: P641098 BKG: P641098

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

^{*-} Outside of specification



Analysis Report

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1511613

Reported: 10/27/14 at 12:36 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u> Mercury	%REC %B 202021 84	SD MS/MS REC Limit 45884 80-12 2)	s RPD	RPD MAX 20	BKG Conc 1,040	DUP Conc 1,190	DUP <u>RPD</u> 14	Dup RPD Max 20
Batch number: 142905713006 Mercury	Sample num 79* 82	mber(s): 7640 2 80-12		P63970 20)2 BKG: P639 N.D.	702 N.D.	0 (1)	20
Batch number: 142935711002 Mercury		nber(s): 7640 20 80-12		P64036 20	51 BKG: P640 0.354	361 0.502	35* (1)	20
Batch number: 14294820005A Moisture	Sample num	mber(s): 7640	0183-764019	2 BKG:	7640187 27.8	29.0	4	5

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTE/MTBE/Cumene/Naph/TMBs

Batch number: Q142941AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene		
7640183	66	73	72	70		
7640184	73	82	82	82		
7640187	56	61	63	69		
7640188	61	68	69	66		
7640189	74	82	83	80		
Blank	85	97	93	88		
LCS	92	95	97	92		
LCSD	87	92	92	89		
Limits:	50-141	54-135	52-141	50-131		

Analysis Name: Benzene, Naphthalene

Batch number: Q142951AA

bacch hamber. Qriabbing										
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene						
7640185	72	79	85	94						
7640186	60	70	69	86						
Blank	7 9	86	84	81						
LCS	83	87	87	83						
LCSD	84	88	87	83						
Limite-	50-141	54-135	52-141	50-131						

Analysis Name: PPL/TCL Volatiles in Soil Batch number: X142941AA

Date in interest in the second									
Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene						
100	99	100	98						
103	104	109	84						
104	106	99	98						
102	101	100	98						
100	97	102	104						
	Dibromofluoromethane 100 103 104 102	Dibromofluoromethane 1,2-Dichloroethane-d4 100 99 103 104 104 106 102 101	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 100 99 100 103 104 109 104 106 99 102 101 100	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene 100 99 100 98 103 104 109 84 104 106 99 98 102 101 100 98					

- *- Outside of specification
- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



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Quality Control Summary

Client Name: Rettew Associates Group Number: 1511613

Reported: 10/27/14 at 12:36 PM

Surrogate Quality Control

LCSD	100	97	101	103
Limits:	50-141	54-135	52-141	50-131

Analysis Name: PPL/TCL Volatiles in Water

Batch number: Y142941AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene	
7640193	99	100	99	91	
7640194	98	100	99	91	
Blank	98	99	99	91	
LCS	97	101	102	97	
LCSD	96	101	101	106	
Limits-	80-116	77-113	80-113	78-113	

Analysis Name: PPL/TCL SVOCs in Soil Batch number: 14290SLB026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14	
7640190	88	90	82	87	88	101	
7640191	88	87	67	85	86	94	
Blank	90	96	89	94	96	108	
LCS	93	95	88	94	93	106	
MS	97	100	81	93	91	104	
MSD	88	91	78	91	93	104	
Limits:	44-129	40-141	36-142	54-123	63-124	61-142	

Analysis Name: PAH 8270 (microwave)

Batch number: 14293SLF026

	Nitrobenzene-d5	2-Fluorobiphenyl	l erphenyl-d14
7640183	89	88	99
7640184	90	92	101
7640185	90	92	99
7640186	84	88	93
Blank	91	93	105
LCS	91	90	100
MS	88	87	96
MSD	89	89	98
Limita-	54-123	63-124	61-142

Analysis Name: PPL/TCL SVOCs in Soil

Batch number: 14294SLC026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
7640192	92	97	92	96	99	110
Blank	91	98	95	96	99	109
LCS	89	94	94	97	95	105
MS	87	88	71	90	87	101
MSD	93	96	81	93	94	106
Limits:	44-129	40-141	36-142	54-123	63-124	61-142

Analysis Name: TCL SW846 Semivolatiles/Waters

Date CII IId	MIDCI. ITZJINAGO	440				
	2-Fluorophenol	Phenol-d6	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
7640193	68	47	82	104	96	110
Blank	61	41	69	90	81	82
LCS	7 9	54	87	107	96	106
LCSD	7 9	54	86	108	96	105
Limits:	10-107	10-83	22-150	60-123	67-116	40-147

^{*-} Outside of specification

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.



Analysis Report

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1511613

Reported: 10/27/14 at 12:36 PM

Surrogate Quality Control

^{*-} Outside of specification

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.

<u>2</u> T=Thiosulfate Preservation Codes Time B=NaOH 名がいなっていると 0=Other PROS SIELOIL 18-2 SB 3,58-4 Remarks 方の含いかの C.E. For Lab Use Only N=HNO₃ S=H₂SO₄ 무무 SCR#: 791 SHADW Analysis Requested Preservation Codes ved by 1 d Received by For Eurofins Lancaster Laboratories Environmental use only Group # パーパース Sample # ブレイの 8 ミータロ 12.20 ري موري الم 14:00 MINDEICHN MYNHLINNB フタ Group # 1571/2/ Sample # 70 11 Instructions on reverse side correspond with circled numbers. HW (4) Total # of Containers Other: Matrix Surace **NPDES** Water Potable ⊠ lio2 Sediment 4 Composite Grab 4:00 5. 8 5.6 Time 4:40 200 S:= 10:15 Collected S ると、これには 10/10 2 <u>2</u> <u>د</u> 5 <u>0</u> 0 0 Turnaround Time (TAT) Requested (please circle) <u>~</u> Date Acct. # # QISMc Quote #: 0 (Rush TAT is subject to aboratory approval and surcharge.) Client Information 为以 Lancaster Laboratories EV2.16 V242 Sample Identification いかられてるけど Environmental vame of state where samples were collected: がながなる。 ではかどば ď ٥ 7 5 00111101 Standard Date results are needed: Œ. 0 🐾 eurofins 5B-10 E-mail address: SE-20 から 1 S S S S S roject Manager: 10 100 5 B S. N 30 oject Name/ sampler:

\ |--|

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The white copy should accompany samples to Eurofins Lancaster Page 38 Me Environmental. The yellow copy should be retained by the client.

(If yes, indicate QC sample and submit triplicate sample volume.)

7044 0514

Relinquished by Commercial Carrier:

Received by

Time

Relinquished by

Type VI (Raw Data Only)

Data Package Options (circle if required)

Type I (Validation/non-CLP)

TX TRRP-13

Type III (Reduced non-CLP)

FedEx

Sdn

ž

Yes

Yes

EDD Required?

Site-Specific QC (MS/MSD/Dup)?

CT RCP

MA'MCP

Type IV (CLP SOW)

If yes, format:

Temperature upon receipt

The state of the state of the state of

Preservation Codes Remarks For Lab Use Only S=H₂SO₄ N=HNO₃ H=HCI SCR#: Analysis Requested Preservation Codes Received by Received by For Eurofins Lancaster Laboratories Environmental use only Strict Group # 15 //L/3 Sample # 72 C C O Sample # Instructions on reverse side correspond with circled numbers. C. 81 \$ \$ 2 1.00 ronmantal Analysis Raginasi/Ghain of Ou 784 MELLYLICE 76 Total # of Containers :nediO Matrix Surface **NDDES** Water Potable Sediment lio2 4 Composite Grab ů, R Collected Turnaround Time (TAT) Requested (please circle) Date Acct. # 10/16 <u>2</u> # QISMc Quote #: (Rush TAT is subject to laboratory approval and surcharge.) Client Information FIGHTS ASSETTED TO Lancaster Laboratories いっちなかられ Sample Identification ALCOARCO CO 3 Environmental tame of state where samples were collected: 001010 これに とでき ్హి eurofins アンとさい 分 F roject Manager oject Name Sampler:

F=Thiosulfate

B=NaOH 0=Other

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(If yes, Indicate QC sample and submit triplicate sample volume.)

7044 0514

Temperature upon receipt

Relinquished by Commercial Carrier:

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Relinquished by

Relinquished by

Relinquished by

Type VI (Raw Data Only)

Data Package Options (circle if required)

E-mail address:

Date results are needed:

Type I (Validation/non-CLP)

TX TRRP-13

Type III (Reduced non-CLP)

Other

UPS

£

Yes

Site-Specific QC (MS/MSD/Dup)?

CT RCP

MA MCP

Type IV (CLP SOW)

If yes, format:

2

Yes

EDD Required?

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me

шe

lime

me



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

- less than The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.
- greater than

parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For ppm aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

parts per billion ppb

Dry weight basis

Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value - The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers **Inorganic Qualifiers** TIC is a possible aldol-condensation product Value is <CRDL. but >IDL Α В Analyte was also detected in the blank Estimated due to interference Pesticide result confirmed by GC/MS C М Duplicate injection precision not met Compound quantitated on a diluted sample Spike sample not within control limits D Ν Concentration exceeds the calibration range of Ε Method of standard additions (MSA) used S for calculation the instrument U Ν Presumptive evidence of a compound (TICs only) Compound was not detected Concentration difference between primary and W Post digestion spike out of control limits confirmation columns >25% Duplicate analysis not within control limits Correlation coefficient for MSA < 0.995 Compound was not detected X,Y,Z Defined in case narrative

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Analysis Report

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ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

February 17, 2015

Project: Project 101722001

Submittal Date: 02/05/2015 Group Number: 1536371 PO Number: 101722001 State of Sample Origin: PA

Client Sample Description	Lancaster Labs (LL) #
SB-12 @ 5 Ft Grab Soil	7762626
SB-11 @ 14 Ft Grab Soil	7762627
SB-21 @ 8 Ft Grab Soil	7762628
SB-21 @ 10 Ft Grab Soil	7762629
SB-13 @ 10 Ft Grab Soil	7762630
SB-14 @ 11 Ft Grab Soil	7762631
SB-15 @ 11 Ft Grab Soil	7762632
SB-12 @ 8 Ft Grab Soil	7762633
SB-12 @ 12 Ft Grab Soil	7762634
SB-12 @ 18 Ft Grab Soil	7762635
SB-18 @ 10 Ft Grab Soil	7762636
SB-18 @ 13 Ft Grab Soil	7762637
SB-18 @ 15 Ft Grab Soil	7762638
SB-19 @ 10 Ft Grab Soil	7762639
SB-16 @ 12 Ft Grab Soil	7762640
SB-20 @ 8 Ft Grab Soil	7762641
SB-20 @ 11 Ft Grab Soil	7762642
SB-20 @ 15 Ft Grab Soil	7762643
SB-17 @ 7 Ft Grab Soil	7762644
SB-17 @ 11 Ft Grab Soil	7762645
SB-17 @ 15 Ft Grab Soil	7762646

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/.

Analysis Report

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ELECTRONIC COPY TO Rettew Associates

Attn: Ed Dziedzic

Respectfully Submitted,

Stacy L. Butt Specialist

16

(717) 556-7236



Analysis Report

Account

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Sample Description: SB-12 @ 5 Ft Grab Soil

101722001

LL Sample # SW 7762626 LL Group # 1536371

00721

Project Name: Project 101722001

Collected: 02/04/2015 14:00 by DB

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19

Reported: 02/17/2015 10:18

S12-5

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-84	6 8260B	ug/kg		ug/kg	
10237	Benzene	71-43-2	N.D.		29	46.38
10237	Ethylbenzene	100-41-4	480		57	46.38
10237	Isopropylbenzene	98-82-8	250	J	57	46.38
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		29	46.38
10237	Naphthalene	91-20-3	088		57	46.38
10237	Toluene	108-88-3	N.D.		57	46.38
10237	1,2,4-Trimethylbenzene	95-63-6	6,600		57	46.38
10237	1,3,5-Trimethylbenzene	108-67-8	2,600		57	46.38
10237	Xylene (Total)	1330-20-7	1,100		57	46.38
Wet Ch	nemistry SM 25	40 G-1997	8		%	
00111	Moisture	n.a.	18.7		0.50	1
	Maisture represents the las	iniaht of the	1f-			

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	=	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150391AA	02/08/2015 1	12:52	Sarah A Guill	46.38
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201503636746	02/04/2015 1	L4:00	Client Supplied	1
	MeOH							
00111	Moisture	SM 2540 G-1997	1	15042820006A	02/11/2015 2	20:49	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-11 @ 14 Ft Grab Soil

101722001

LL Sample # SW 7762627 LL Group # 1536371 Account # 00721

Project Name: Project 101722001

Collected: 02/05/2015 10:00 by DB

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19 Reported: 02/17/2015 10:18

S1114

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg		ug/kg	
10237	Benzene		71-43-2	N.D.		29	48.45
10237	Ethylbenzene		100-41-4	N.D.		57	48.45
10237	Isopropylbenzene		98-82-8	N.D.		57	48.45
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.		29	48.45
10237	Naphthalene		91-20-3	N.D.		57	48.45
10237	Toluene		108-88-3	N.D.		57	48.45
10237	1,2,4-Trimethylbenz	ene	95-63-6	79	J	57	48.45
10237	1,3,5-Trimethylbenz	ene	108-67-8	N.D.		57	48.45
10237	Xylene (Total)		1330-20-7	N.D.		57	48.45
Wet Cl	nemistry	SM 5310		% by w	.	% by wt.	
		modifie	d-2000				
02079	TOC Solids/Sludges	Combustion	n.a.	N.D.		0.0118	1
Wet Cl	nemistry	SM 2540	G-1997	8		8	
00111	Moisture		n.a.	15.4		0.50	1
	Moisture represents	the loss	in weight of the	sample at	ter oven dr	ying at	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an

as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150391AA	02/08/2015	13:15	Sarah A Guill	48.45
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201503636746	02/05/2015	10:00	Client Supplied	1
	MeOH							
02079	TOC Solids/Sludges	SM 5310 B	1	15046049531A	02/15/2015	23:23	James S Mathiot	1
	Combustion	modified-2000						
00111	Moisture	SM 2540 G-1997	1	15042820006A	02/11/2015	20:49	Scott W Freisher	1



Analysis Report

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Sample Description: SB-21 @ 8 Ft Grab Soil

101722001

LL Sample # SW 7762628 LL Group # 1536371

Account

00721

Project Name: Project 101722001

Collected: 02/05/2015 10:50 by DB Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19

Reported: 02/17/2015 10:18

S21-8

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg		ug/kg	
10237	Benzene		71-43-2	N.D.		33	51.02
10237	Ethylbenzene		100-41-4	N.D.		66	51.02
10237	Isopropylbenzene		98-82-8	N.D.		66	51.02
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.		33	51.02
10237	Naphthalene		91-20-3	76	J	66	51.02
10237	Toluene		108-88-3	N.D.		66	51.02
10237	1,2,4-Trimethylbenz	ene	95-63-6	N.D.		66	51.02
10237	1,3,5-Trimethylbenz	ene	108-67-8	N.D.		66	51.02
10237	Xylene (Total)		1330-20-7	N.D.		66	51.02
Wet Cl	nemistry	SM 2540	G-1997	8		F	
00111	Moisture		n.a.	22.2		0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an

as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150391AA	02/08/2015 13	3:38	Sarah A Guill	51.02
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201503636746	02/05/2015 10	0:50	Client Supplied	1
	MeOH							
00111	Moisture	SM 2540 G-1997	1	15042820006A	02/11/2015 20	0:49	Scott W Freisher	1



Analysis Report

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Sample Description: SB-21 @ 10 Ft Grab Soil

101722001

LL Sample # SW 7762629 LL Group # 1536371 Account # 00721

Project Name: Project 101722001

Collected: 02/05/2015 10:55 by DB Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19

Reported: 02/17/2015 10:18

S2110

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg		ug/kg	
10237	Benzene	71-43-2	30	J	26	45.79
10237	Ethylbenzene	100-41-4	180	J	51	45.79
10237	Isopropylbenzene	98-82-8	N.D.		51	45.79
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		26	45.79
10237	Naphthalene	91-20-3	N.D.		51	45.79
10237	Toluene	108-88-3	270		51	45.79
10237	1,2,4-Trimethylbenzene	95-63-6	670		51	45.79
10237	1,3,5-Trimethylbenzene	108-67-8	240	J	51	45.79
10237	Xylene (Total)	1330-20-7	1,100		51	45.79
Wet Cl	hemistry SM 254	0 G-1997	%		%	
00111	Moisture	n.a.	10.6		0.50	1
	Moisture represents the los	s in weight of the	sample af	ter oven drying at		

103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150391AA	02/08/2015	14:01	Sarah A Guill	45.79
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201503636746	02/05/2015	10:55	Client Supplied	1
	MeOH							
00111	Moisture	SM 2540 G-1997	1	15042820006A	02/11/2015	20:49	Scott W Freisher	1



Analysis Report

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Sample Description: SB-13 @ 10 Ft Grab Soil

101722001

LL Sample # SW 7762630 LL Group # 1536371 Account # 00721

Project Name: Project 101722001

Collected: 02/05/2015 11:20 by DB

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19

Reported: 02/17/2015 10:18

S1310

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	30	48.26
10237	Ethylbenzene	100-41-4	N.D.	60	48.26
10237	Isopropylbenzene	98-82-8	N.D.	60	48.26
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	30	48.26
10237	Naphthalene	91-20-3	N.D.	60	48.26
10237	Toluene	108-88-3	N.D.	60	48.26
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	60	48.26
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	60	48.26
10237	Xylene (Total)	1330-20-7	N.D.	60	48.26
Wet Cl	nemistry SM 254	0 G-1997	%	%	
00111	Moisture	n.a.	19.4	0.50	1
	Majatura represents the les-	s is weight of the	cample after over	dwing at	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150391AA	02/08/2015	14:24	Sarah A Guill	48.26
06171	GC/MS-5g Field Preserv. MeOH	SW-846 5035A	1	201503636746	02/05/2015	11:20	Client Supplied	1
00111	Moisture	SM 2540 G-1997	1	15042820006A	02/11/2015	20:49	Scott W Freisher	1



Analysis Report

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Sample Description: SB-14 @ 11 Ft Grab Soil

101722001

LL Sample # SW 7762631 LL Group # 1536371 Account # 00721

Project Name: Project 101722001

Collected: 02/05/2015 11:35 by DB Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19

Reported: 02/17/2015 10:18

S1411

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	29	44.4
10237	Ethylbenzene	100-41-4	N.D.	58	44.4
10237	Isopropylbenzene	98-82-8	N.D.	58	44.4
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	29	44.4
10237	Naphthalene	91-20-3	N.D.	58	44.4
10237	Toluene	108-88-3	N.D.	58	44.4
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	58	44.4
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	58	44.4
10237	Xylene (Total)	1330-20-7	N.D.	58	44.4
Wet Cl	nemistry SM 254	0 G-1997	%	%	
00111	Moisture	n.a.	22.9	0.50	1
	Meisture represents the less	in weight of the	comple ofter over	dwing at	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an

as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150391AA	02/08/2015	14:47	Sarah A Guill	44.4
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201503636746	02/05/2015	11:35	Client Supplied	1
	MeOH							
00111	Moisture	SM 2540 G-1997	1	15042820006A	02/11/2015	20:49	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-15 @ 11 Ft Grab Soil

101722001

LL Sample # SW 7762632 LL Group # 1536371 Account # 00721

Project Name: Project 101722001

Collected: 02/05/2015 11:55 by DB Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19

Reported: 02/17/2015 10:18

S1511

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	28	40.19
10237	Ethylbenzene	100-41-4	N.D.	56	40.19
10237	Isopropylbenzene	98-82-8	N.D.	56	40.19
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	28	40.19
10237	Naphthalene	91-20-3	N.D.	56	40.19
10237	Toluene	108-88-3	N.D.	56	40.19
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	56	40.19
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	56	40.19
10237	Xylene (Total)	1330-20-7	N.D.	56	40.19
Wet Cl	nemistry SM 254	0 G-1997	%	%	
00111	Moisture	n.a.	28.2	0.50	1
	Moisture represents the los	s in weight of the	sample after oven o	drving at	

103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150391AA	02/08/2015	15:10	Sarah A Guill	40.19
06171	GC/MS-5g Field Preserv. MeOH	SW-846 5035A	1	201503636746	02/05/2015	11:55	Client Supplied	1
00111	Moisture	SM 2540 G-1997	1	15042820006A	02/11/2015	20:49	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-12 @ 8 Ft Grab Soil

101722001

LL Sample # SW 7762633 LL Group # 1536371 Account # 00721

Project Name: Project 101722001

Collected: 02/05/2015 12:15 by DB

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19

Reported: 02/17/2015 10:18

S12-8

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	58	92.08
10237	Ethylbenzene	100-41-4	16,000	120	92.08
10237	Isopropylbenzene	98-82-8	5,200	120	92.08
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	58	92.08
10237	Naphthalene	91-20-3	9,000	120	92.08
10237	Toluene	108-88-3	N.D.	120	92.08
10237	1,2,4-Trimethylbenzene	95-63-6	120,000	1,200	920.81
10237	1,3,5-Trimethylbenzene	108-67-8	39,000	1,200	920.81
10237	Xylene (Total)	1330-20-7	34,000	120	92.08
Wet Cl	hemistry SM 254	0 G-1997	%	%	
00111	Moisture	n.a.	20.0	0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150391AA	02/08/2015 15:33	Sarah A Guill	92.08
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150391AA	02/08/2015 15:57	Sarah A Guill	920.81
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201503636746	02/05/2015 12:15	Client Supplied	1
	MeOH						
00111	Moisture	SM 2540 G-1997	1	15042820006A	02/11/2015 20:49	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-12 @ 12 Ft Grab Soil

101722001

LL Sample # SW 7762634 LL Group # 1536371 Account # 00721

Project Name: Project 101722001

Collected: 02/05/2015 12:20 by DB Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19

Reported: 02/17/2015 10:18

S1212

GC/MS Volatiles SW-846 8260B ug/kg ug/kg 10237 Benzene 71-43-2 N.D. 29 42.3 10237 Ethylbenzene 100-41-4 3,800 58 42.3 10237 Isopropylbenzene 98-82-8 2,200 58 42.3 10237 Methyl Tertiary Butyl Ether 1634-04-4 N.D. 29 42.3 10237 Naphthalene 91-20-3 2,400 58 42.3 10237 Tollege 108-88-3 N.D. 58 42.3	CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
10237 Ethylbenzene 100-41-4 3,800 58 42.3 10237 Isopropylbenzene 98-82-8 2,200 58 42.3 10237 Methyl Tertiary Butyl Ether 1634-04-4 N.D. 29 42.3 10237 Naphthalene 91-20-3 2,400 58 42.3	GC/MS	Volatiles :	SW-846	8260B	ug/kg	ug/kg	
10237 Isopropylbenzene 98-82-8 2,200 58 42.3 10237 Methyl Tertiary Butyl Ether 1634-04-4 N.D. 29 42.3 10237 Naphthalene 91-20-3 2,400 58 42.3	10237	Benzene		71-43-2	N.D.	29	42.3
10237 Methyl Tertiary Butyl Ether 1634-04-4 N.D. 29 42.3 10237 Naphthalene 91-20-3 2,400 58 42.3	10237	Ethylbenzene		100-41-4	3,800	58	42.3
10237 Naphthalene 91-20-3 2,400 58 42.3	10237	Isopropylbenzene		98-82-8	2,200	58	42.3
	10237	Methyl Tertiary Buty	l Ether	1634-04-4	N.D.	29	42.3
10237 Toluene 108-88-3 N.D. 58 42.3	10237	Naphthalene		91-20-3	2,400	58	42.3
10257 1014010 100 00 5 11.5.	10237	Toluene		108-88-3	N.D.	58	42.3
10237 1,2,4-Trimethylbenzene 95-63-6 68,000 580 423.01	10237	1,2,4-Trimethylbenzer	ne	95-63-6	68,000	580	423.01
10237 1,3,5-Trimethylbenzene 108-67-8 15,000 58 42.3	10237	1,3,5-Trimethylbenzer	ne	108-67-8	15,000	58	42.3
10237 Xylene (Total) 1330-20-7 8,900 58 42.3	10237	Xylene (Total)		1330-20-7	8,900	58	42.3
Wet Chemistry SM 2540 G-1997 %	Wet C	hemistry :	SM 2540	G-1997	%	%	
00111 Moisture n.a. 27.3 0.50 1	00111	Moisture		n.a.	27.3	0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150391AA	02/08/2015 16:2	Sarah A Guill	42.3
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150411AA	02/10/2015 18:2:	Sarah A Guill	423.01
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201503636746	02/05/2015 12:20	Client Supplied	1
	MeOH						
00111	Moisture	SM 2540 G-1997	1	15042820006A	02/11/2015 20:4:	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-12 @ 18 Ft Grab Soil

101722001

LL Sample # SW 7762635 LL Group # 1536371 Account # 00721

Project Name: Project 101722001

Collected: 02/05/2015 12:25 by DB

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19 Reported: 02/17/2015 10:18

. 18

S1218

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg		ug/kg	
10237	Benzene		71-43-2	N.D.		30	50.81
10237	Ethylbenzene		100-41-4	N.D.		61	50.81
10237	Isopropylbenzene		98-82-8	N.D.		61	50.81
10237	Methyl Tertiary Buty	l Ether	1634-04-4	N.D.		30	50.81
10237	Naphthalene		91-20-3	100	J	61	50.81
10237	Toluene		108-88-3	N.D.		61	50.81
10237	1,2,4-Trimethylbenze	ne	95-63-6	500		61	50.81
10237	1,3,5-Trimethylbenze	ne	108-67-8	190	J	61	50.81
10237	Xylene (Total)		1330-20-7	N.D.		61	50.81
Wet C	hemistry	SM 2540) G-1997	8		%	
00111	Moisture		n.a.	16.6		0.50	1
				3 6			

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150391AA	02/08/2015	16:43	Sarah A Guill	50.81
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201503636746	02/05/2015	12:25	Client Supplied	1
	MeOH							
00111	Moisture	SM 2540 G-1997	1	15042820006A	02/11/2015	20:49	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-18 @ 10 Ft Grab Soil

101722001

LL Sample # SW 7762636 LL Group # 1536371 Account # 00721

Project Name: Project 101722001

Collected: 02/05/2015 13:20 by DB Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19

Reported: 02/17/2015 10:18

S1810

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg		ug/kg	
10237	Benzene		71-43-2	1,900		28	43.4
10237	Ethylbenzene		100-41-4	710		56	43.4
10237	Isopropylbenzene		98-82-8	N.D.		56	43.4
10237	Methyl Tertiary E	Butyl Ether	1634-04-4	260	J	28	43.4
10237	Naphthalene		91-20-3	160	J	56	43.4
10237	Toluene		108-88-3	280		56	43.4
10237	1,2,4-Trimethylbe	enzene	95-63-6	990		56	43.4
10237	1,3,5-Trimethylbe	enzene	108-67-8	300		56	43.4
10237	Xylene (Total)		1330-20-7	3,500		56	43.4
Wet C	hemistry	SM 254	0 G-1997	%		%	
00111	Moisture		n.a.	22.4		0.50	1
	Moisture represen	its the loss	in weight of the	sample af	ter oven dr	ving at	

103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150391AA	02/08/2015	17:06	Sarah A Guill	43.4
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201503636746	02/05/2015	13:20	Client Supplied	1
	MeOH							
00111	Moisture	SM 2540 G-1997	1	15042820006B	02/11/2015	20:49	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-18 @ 13 Ft Grab Soil

101722001

LL Sample # SW 7762637 LL Group # 1536371 Account # 00721

Project Name: Project 101722001

Collected: 02/05/2015 13:25 by DB

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19

Reported: 02/17/2015 10:18

S1813

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg		ug/kg	
10237	Benzene		71-43-2	3,200		30	44.4
10237	Ethylbenzene		100-41-4	810		59	44.4
10237	Isopropylbenzene		98-82-8	N.D.		59	44.4
10237	Methyl Tertiary B	utyl Ether	1634-04-4	31	J	30	44.4
10237	Naphthalene		91-20-3	120	J	59	44.4
10237	Toluene		108-88-3	9,500		59	44.4
10237	1,2,4-Trimethylbe	nzene	95-63-6	890		59	44.4
10237	1,3,5-Trimethylbe	nzene	108-67-8	290	J	59	44.4
10237	Xylene (Total)		1330-20-7	3,800		59	44.4
Wet Cl	nemistry	SM 254	G-1997	%		%	
00111	Moisture		n.a.	25.2		0.50	1
	Moisture represent	ts the loss	in weight of the	sample af	ter oven dr	ving at	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an $\,$

as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150391AA	02/08/2015	17:29	Sarah A Guill	44.4
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201503636746	02/05/2015	13:25	Client Supplied	1
	MeOH							
00111	Moisture	SM 2540 G-1997	1	15042820006B	02/11/2015	20:49	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

by DB

Sample Description: SB-18 @ 15 Ft Grab Soil

101722001

LL Sample # SW 7762638 LL Group # 1536371 Account # 00721

Project Name: Project 101722001

Rettew Associates

3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19

Collected: 02/05/2015 13:30

Reported: 02/17/2015 10:18

S1815

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	30	50
10237	Ethylbenzene	100-41-4	N.D.	59	50
10237	Isopropylbenzene	98-82-8	N.D.	59	50
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	30	50
10237	Naphthalene	91-20-3	N.D.	59	50
10237	Toluene	108-88-3	N.D.	59	50
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	59	50
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	59	50
10237	Xylene (Total)	1330-20-7	N.D.	59	50
Wet Cl	nemistry SM 2540	G-1997	%	%	
00111	Moisture	n.a.	15.7	0.50	1
	Madania		7 (

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150391AA	02/08/2015	17:53	Sarah A Guill	50
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201503636746	02/05/2015	13:30	Client Supplied	1
	MeOH							
00111	Moisture	SM 2540 G-1997	1	15042820006B	02/11/2015	20:49	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-19 @ 10 Ft Grab Soil

101722001

LL Sample # SW 7762639 LL Group # 1536371 Account # 00721

Project Name: Project 101722001

Collected: 02/05/2015 14:00 by DB

Rettew Associates

3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19 Reported: 02/17/2015 10:18

S1910

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-84	16 8260B	ug/kg		ug/kg	
10237	Benzene	71-43-2	N.D.		25	40.06
10237	Ethylbenzene	100-41-4	N.D.		49	40.06
10237	Isopropylbenzene	98-82-8	N.D.		49	40.06
10237	Methyl Tertiary Butyl Ethe	er 1634-04-4	N.D.		25	40.06
10237	Naphthalene	91-20-3	N.D.		49	40.06
10237	Toluene	108-88-3	N.D.		49	40.06
10237	1,2,4-Trimethylbenzene	95-63-6	230	J	49	40.06
10237	1,3,5-Trimethylbenzene	108-67-8	89	J	49	40.06
10237	Xylene (Total)	1330-20-7	N.D.		49	40.06
Wet Cl	nemistry SM 2!	540 G-1997	%		%	
00111	Moisture	n.a.	18.7		0.50	1
	Majature represents the le	as is weight of the	comple of	tor over di	aring at	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150391AA	02/08/2015	18:16	Sarah A Guill	40.06
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201503636746	02/05/2015	14:00	Client Supplied	1
	MeOH							
00111	Moisture	SM 2540 G-1997	1	15042820006B	02/11/2015	20:49	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-16 @ 12 Ft Grab Soil

101722001

LL Sample # SW 7762640 LL Group # 1536371 Account # 00721

Project Name: Project 101722001

Collected: 02/05/2015 14:45 by DB

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19

Reported: 02/17/2015 10:18

S1612

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	28	40.26
10237	Ethylbenzene	100-41-4	N.D.	56	40.26
10237	Isopropylbenzene	98-82-8	N.D.	56	40.26
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	28	40.26
10237	Naphthalene	91-20-3	N.D.	56	40.26
10237	Toluene	108-88-3	N.D.	56	40.26
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	56	40.26
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	56	40.26
10237	Xylene (Total)	1330-20-7	N.D.	56	40.26
Wet Cl	hemistry SM 254	0 G-1997	%	%	
00111	Moisture	n.a.	27.9	0.50	1
	Moisture represents the los	s in weight of the	sample after oven dr	ving at	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150391AA	02/08/2015	18:39	Sarah A Guill	40.26
06171	GC/MS-5g Field Preserv. MeOH	SW-846 5035A	1	201503636746	02/05/2015	14:45	Client Supplied	1
00111	Moisture	SM 2540 G-1997	1	15042820006B	02/11/2015	20:49	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-20 @ 8 Ft Grab Soil

101722001

LL Sample # SW 7762641 LL Group # 1536371 Account # 00721

Project Name: Project 101722001

Collected: 02/05/2015 15:20 by DB Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19

Reported: 02/17/2015 10:18

S20-8

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-8	46 8260B	ug/kg		ug/kg	
10237	Benzene	71-43-2	1,300		28	43.48
10237	Ethylbenzene	100-41-4	630		55	43.48
10237	Isopropylbenzene	98-82-8	N.D.		55	43.48
10237	Methyl Tertiary Butyl Eth	er 1634-04-4	N.D.		28	43.48
10237	Naphthalene	91-20-3	130	J	55	43.48
10237	Toluene	108-88-3	4,500		55	43.48
10237	1,2,4-Trimethylbenzene	95-63-6	590		55	43.48
10237	1,3,5-Trimethylbenzene	108-67-8	180	J	55	43.48
10237	Xylene (Total)	1330-20-7	2,500		55	43.48
The :	LCS and/or LCSD recoveries	are outside the state	d QC wind	OW .		
	within the marginal exceeda			1		
	ations as defined in the NE ytes are accepted based on					
Wet Cl	hemistry SM 2	540 G-1997	8		8	
00111	Moisture	n.a.	21.4		0.50	1
	Moisture represents the l	oss in weight of the s	sample aft	er oven drying at		
	103 - 105 degrees Celsius	. The moisture result	reported	is on an		

105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ıe	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150411AA	02/10/2015	18:45	Sarah A Guill	43.48
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201503636746	02/05/2015	15:20	Client Supplied	1
	MeOH							
00111	Moisture	SM 2540 G-1997	1	15042820006B	02/11/2015	20:49	Scott W Freisher	1



Analysis Report

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Sample Description: SB-20 @ 11 Ft Grab Soil

101722001

LL Sample # SW 7762642 LL Group # 1536371 Account # 00721

Project Name: Project 101722001

Collected: 02/05/2015 15:25 by DB Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19

Reported: 02/17/2015 10:18

S2011

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg		ug/kg	
10237	Benzene	71-43-2	1,900		31	46.47
10237	Ethylbenzene	100-41-4	680		61	46.47
10237	Isopropylbenzene	98-82-8	N.D.		61	46.47
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		31	46.47
10237	Naphthalene	91-20-3	93	J	61	46.47
10237	Toluene	108-88-3	5,000		61	46.47
10237	1,2,4-Trimethylbenzene	95-63-6	500		61	46.47
10237	1,3,5-Trimethylbenzene	108-67-8	150	J	61	46.47
10237	Xylene (Total)	1330-20-7	2,900		61	46.47
The	LCS and/or LCSD recoveries ar	e outside the state	ed QC wind	dow		
but	within the marginal exceedanc	e allowance of +/-	4 standar	rd		
	ations as defined in the NELA ytes are accepted based on th					
Wet Cl	nemistry SM 254	0 G-1997	8		%	
00111	Moisture	n.a.	24.2		0.50	1
	Moisture represents the loss	in weight of the	sample af	ter oven drying at		
	103 - 105 degrees Celsius. T	he moisture result	reported	is on an		

as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150411AA	02/10/2015	19:08	Sarah A Guill	46.47
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201503636746	02/05/2015	15:25	Client Supplied	1
	MeOH							
00111	Moisture	SM 2540 G-1997	1	15042820006B	02/11/2015 2	20:49	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-20 @ 15 Ft Grab Soil

101722001

LL Sample # SW 7762643 LL Group # 1536371

Account # 00721

Project Name: Project 101722001

Collected: 02/05/2015 15:30 by DB Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19

Reported: 02/17/2015 10:18

S2015

CAT No. Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 82	260B	ug/kg	ug/kg	
10237 Benzene	71-43-2	N.D.	26	46.13
10237 Ethylbenzene	100-41-4	N.D.	53	46.13
10237 Isopropylbenzene	98-82-8	N.D.	53	46.13
10237 Methyl Tertiary Butyl Ether	1634-04-4	N.D.	26	46.13
10237 Naphthalene	91-20-3	N.D.	53	46.13
10237 Toluene	108-88-3	N.D.	53	46.13
10237 1,2,4-Trimethylbenzene	95-63-6	N.D.	53	46.13
10237 1,3,5-Trimethylbenzene	108-67-8	N.D.	53	46.13
10237 Xylene (Total)	1330-20-7	N.D.	53	46.13
The LCS and/or LCSD recoveries are o	utside the stat	ed QC window		
but within the marginal exceedance a	llowance of +/-	4 standard		
deviations as defined in the NELAC S	tandards. The	following		
analytes are accepted based on this	allowance: Naph	thalene		
Wet Chemistry SM 2540 G	3-1997	*	*	
00111 Moisture	n.a.	12.3	0.50	1
Moisture represents the loss in	weight of the	sample after oven drying at		
103 - 105 degrees Celsius. The				

as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	me		Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150411AA	02/10/2015	19:31	Sarah A Guill	46.13
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201503636746	02/05/2015	15:30	Client Supplied	1
	MeOH							
00111	Moisture	SM 2540 G-1997	1	15042820006B	02/11/2015	20:49	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-17 @ 7 Ft Grab Soil

101722001

LL Sample # SW 7762644 LL Group # 1536371 Account # 00721

Project Name: Project 101722001

Collected: 02/05/2015 12:50 by DB Rettew Associates

3020 Columbia Avenue

Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19 Reported: 02/17/2015 10:18

S17-7

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg		ug/kg	
10237	Benzene	71-43-2	N.D.		27	44.72
10237	Ethylbenzene	100-41-4	100	J	54	44.72
10237	Isopropylbenzene	98-82-8	N.D.		54	44.72
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		27	44.72
10237	Naphthalene	91-20-3	350		54	44.72
10237	Toluene	108-88-3	1,100		54	44.72
10237	1,2,4-Trimethylbenzene	95-63-6	450		54	44.72
10237	1,3,5-Trimethylbenzene	108-67-8	250	J	54	44.72
10237	Xylene (Total)	1330-20-7	1,100		54	44.72
Wet C	hemistry SM 254	10 G-1997	%		%	
00111	Moisture	n.a.	17.6		0.50	1
	Moisture represents the los	s in weight of the	sample af	ter oven drving at		

103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150421AA	02/11/2015	12:03	Anita M Dale	44.72
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201503636746	02/05/2015	12:50	Client Supplied	1
	MeOH							
00111	Moisture	SM 2540 G-1997	1	15042820006B	02/11/2015	20:49	Scott W Freisher	1



Analysis Report

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Sample Description: SB-17 @ 11 Ft Grab Soil

101722001

LL Sample # SW 7762645 LL Group # 1536371 Account # 00721

Project Name: Project 101722001

Collected: 02/05/2015 12:55 by DB

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19

Reported: 02/17/2015 10:18

S1711

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	240 J	60	88.97
10237	Ethylbenzene	100-41-4	130,000	1,200	889.68
10237	Isopropylbenzene	98-82-8	7,400	120	88.97
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	60	88.97
10237	Naphthalene	91-20-3	15,000	120	88.97
10237	Toluene	108-88-3	390,000	12,000	8896.8
10237	1,2,4-Trimethylbenzene	95-63-6	210,000	1,200	889.68
10237	1,3,5-Trimethylbenzene	108-67-8	68,000	1,200	889.68
10237	Xylene (Total)	1330-20-7	590,000	1,200	889.68
Wet Ch	nemistry SM 254	G-1997	%	%	
00111	Moisture	n.a.	26.2	0.50	1
	Maisture represents the lase	in weight of the	comple often over	duning of	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150421AA	02/11/2015	12:25	Anita M Dale	88.97
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150421AA	02/11/2015	12:48	Anita M Dale	889.68
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150431AA	02/12/2015	12:30	Anita M Dale	8896.8
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201503636746	02/05/2015	12:55	Client Supplied	1
	MeOH							
00111	Moisture	SM 2540 G-1997	1	15042820006B	02/11/2015	20:49	Scott W Freisher	1



Analysis Report

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Sample Description: SB-17 @ 15 Ft Grab Soil

101722001

LL Sample # SW 7762646 LL Group # 1536371 Account # 00721

Project Name: Project 101722001

Collected: 02/05/2015 13:00 by DB

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/05/2015 18:19

Reported: 02/17/2015 10:18

S1715

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	25	42.81
10237	Ethylbenzene	100-41-4	N.D.	51	42.81
10237	Isopropylbenzene	98-82-8	N.D.	51	42.81
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	25	42.81
10237	Naphthalene	91-20-3	N.D.	51	42.81
10237	Toluene	108-88-3	N.D.	51	42.81
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	51	42.81
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	51	42.81
10237	Xylene (Total)	1330-20-7	N.D.	51	42.81
Wet Cl	hemistry SM 254	0 G-1997	%	%	
00111	Moisture	n.a.	16.0	0.50	1
	Moisture represents the loss	in weight of the	sample after oven	drying at	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150431AA	02/12/2015 10:2	5 Anita M Dale	42.81
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201503636746	02/05/2015 13:0	0 Client Supplied	1
	MeOH						
00111	Moisture	SM 2540 G-1997	1	15043820001A	02/12/2015 18:4	7 Scott W Freisher	1

Analysis Report

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1536371

Reported: 02/17/15 at 10:18 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD <u>Max</u>
Batch number: Q150391AA	Sample numl	ber(s): 77	62626-7762	640				
Benzene	N.D.	25.	uq/kq	89	90	80-120	1	30
Ethylbenzene	N.D.	50.	ug/kg	85	85	80-120	0	30
Isopropylbenzene	N.D.	50.	ug/kg	81	81	76-120	0	30
Methyl Tertiary Butyl Ether	N.D.	25.	uq/kq	94	94	76-122	0	30
Naphthalene	N.D.	50.	ug/kg	65	68	64-120	5	30
Toluene	N.D.	50.	ug/kg	90	87	80-120	4	30
1,2,4-Trimethylbenzene	N.D.	50.	uq/kq	88	86	79-120	3	30
1,3,5-Trimethylbenzene	N.D.	50.	ug/kg	84	84	78-120	0	30
Xylene (Total)	N.D.	50.	ug/kg	88	85	80-120	3	30
Batch number: Q150411AA	Sample numl							
Benzene	N.D.	25.	ug/kg	87	89	80-120	2	30
Ethylbenzene	N.D.	50.	ug/kg	83	84	80-120	2	30
Isopropylbenzene	N.D.	50.	ug/kg	78	82	76-120	5	30
Methyl Tertiary Butyl Ether	N.D.	25.	ug/kg	92	95	76-122	3	30
Naphthalene	N.D.	50.	ug/kg	62*	66	64-120	7	30
Toluene	N.D.	50.	ug/kg	84	87	80-120	2	30
1,2,4-Trimethylbenzene	N.D.	50.	ug/kg	81	84	79-120	4	30
1,3,5-Trimethylbenzene	N.D.	50.	ug/kg	81	81	78-120	1	30
Xylene (Total)	N.D.	50.	ug/kg	82	85	80-120	3	30
Batch number: Q150421AA	Sample numl	ber(s): 77	62644-7762	645				
Benzene	N.D.	25.	ug/kg	95	99	80-120	4	30
Ethylbenzene	N.D.	50.	ug/kg	91	93	80-120	2	30
Isopropylbenzene	N.D.	50.	ug/kg	89	90	76-120	1	30
Methyl Tertiary Butyl Ether	N.D.	25.	ug/kg	102	104	76-122	2	30
Naphthalene	N.D.	50.	ug/kg	82	77	64-120	7	30
Toluene	N.D.	50.	ug/kg	91	94	80-120	3	30
1,2,4-Trimethylbenzene	N.D.	50.	ug/kg	95	93	79-120	1	30
1,3,5-Trimethylbenzene	N.D.	50.	ug/kg	95	92	78-120	3	30
Xylene (Total)	N.D.	50.	ug/kg	90	93	80-120	3	30
Batch number: Q150431AA	Sample numl							
Benzene	N.D.	25.	ug/kg	95	103	80-120	8	30
Ethylbenzene	N.D.	50.	ug/kg	93	103	80-120	11	30
Isopropylbenzene	N.D.	50.	ug/kg	91	100	76-120	10	30
Methyl Tertiary Butyl Ether	N.D.	25.	ug/kg	100	109	76-122	8	30
Naphthalene	N.D.	50.	ug/kg	78	88	64-120	13	30
Toluene	N.D.	50.	ug/kg	93	105	80-120	12	30
1,2,4-Trimethylbenzene	N.D.	50.	ug/kg	90	106	79-120	16	30
1,3,5-Trimethylbenzene	N.D.	50.	ug/kg	89	106	78-120	17	30
Xylene (Total)	N.D.	50.	ug/kg	92	103	80-120	11	30

^{*-} Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



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Quality Control Summary

Group Number: 1536371 Client Name: Rettew Associates Reported: 02/17/15 at 10:18 AM Blank Report LCS LCSD LCS/LCSD RPD %REC <u>RPD</u> Analysis Name Result MDL <u>Units</u> %REC <u>Limits</u> <u>Max</u> Batch number: 15046049531A Sample number(s): 7762627 TOC Solids/Sludges Combustion 0.0100 47-143 N.D. Batch number: 15042820006A Sample number(s): 7762626-7762635 Moisture 99-101 Batch number: 15042820006B Sample number(s): 7762636-7762645 99-101 Moisture 100 Batch number: 15043820001A Sample number(s): 7762646 100 99-101 Moisture

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD <u>Limits</u>	RPD	RPD <u>MAX</u>	BKG Conc	DUP <u>Conc</u>	DUP <u>RPD</u>	Dup RPD <u>Max</u>
Batch number: Q150411AA	Sample	number(s)	: 7762634	,77626	41-7762	643 UNSPK:	P763227		
Benzene	97	102	55-143	2	30				
Ethylbenzene	133	85	44-141	10	30				
Isopropylbenzene	60	38	38-144	10	30				
Methyl Tertiary Butyl Ether	98	110	55-129	6	30				
Naphthalene	-33 (2)	-69 (2)	10-138	3	30				
Toluene	82	86	50-146	2	30				
1,2,4-Trimethylbenzene	-70 (2)	-9 (2)	37-149	2	30				
1,3,5-Trimethylbenzene	-54 (2)	-201 (2)	38-150	12	30				
Xylene (Total)	184 (2)	113 (2)	44-136	9	30				
Batch number: Q150421AA	Sample	number(s)	: 7762644	-77626	45 UNSP	K: P764250			
Benzene	82	82	55-143	6	30				
Ethylbenzene	80	81	44-141	5	30				
Isopropylbenzene	79	7 9	38-144	7	30				
Methyl Tertiary Butyl Ether	87	85	55-129	9	30				
Naphthalene	63	61	10-138	9	30				
Toluene	78	80	50-146	4	30				
1,2,4-Trimethylbenzene	81	81	37-149	7	30				
1,3,5-Trimethylbenzene	80	80	38-150	6	30				
Xylene (Total)	80	80	44-136	6	30				
Batch number: 15046049531A	Sample	number(s)	: 7762627	UNSPK	: 77626	27 BKG: 77€	2627		
TOC Solids/Sludges Combustion	124		22-155			N.D.	N.D.	0 (1)	13
Batch number: 15042820006A	Sample	number(s)	: 7762626	-77626	35 BKG	: 7762632			
Moisture						28.2	26.6	6*	5
Batch number: 15042820006B	Sample	number(s)	: 7762636	-77626	45 BKG				
Moisture						15.7	14.3	10*	5
Batch number: 15043820001A	Sample	number(s)	: 7762646	BKG:	P76228	2			

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



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Quality Control Summary

Client Name: Rettew Associates Group Number: 1536371

Reported: 02/17/15 at 10:18 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Dup RPD MS MSD MS/MSD BKG DUP DUP RPD <u>Analysis Name</u> %REC %REC <u>Limits</u> <u>RPD</u> <u>MAX</u> <u>Conc</u> <u>Conc</u> <u>RPD</u> Max_ Moisture 20*

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- Solid by 8260B Batch number: 0150391AA

Datell Ha	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7762626	64	63	65	66
7762627	77	76	73	72
7762628	71	69	72	75
7762629	77	77	74	75
7762630	79	79	77	75
7762631	68	68	65	67
7762632	69	71	66	66
7762633	70	75	78	80
7762634	60	60	61	60
7762635	85	83	83	81
7762636	67	69	67	68
7762637	60	62	60	60
7762638	89	92	86	83
7762639	68	70	66	67
7762640	60	57	58	60
Blank	95	95	94	88
LCS	86	85	84	80
LCSD	89	89	86	83
Limits:	50-141	54-135	52-141	50-131

Analysis Name: VOCs- Solid by 8260B

Batch number: Q150411AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7762641	69	70	65	69
7762642	68	67	65	65
7762643	84	81	77	78
Blank	103	105	100	94
LCS	89	87	86	83
LCSD	93	91	89	86
MS	64	61	66	74
MSD	69	68	68	76
Limits:	50-141	54-135	52-141	50-131

Analysis Name: VOCs- Solid by 8260B

Batth number: Q150421AA						
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene		
7762644	81	80	74	72		
7762645	65	69	67	66		

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Quality Control Summary

Client Name: Rettew Associates Group Number: 1536371

Reported: 02/17/15 at 10:18 AM

Surrogate Quality Control

Blank	117	115	110	102
LCS	98	96	95	91
LCSD	99	98	95	93
MS	86	81	80	78
MSD	84	81	80	79
Limits:	50-141	54-135	52-141	50-131

Analysis Name: VOCs- Solid by 8260B Batch number: Q150431AA

Bacch humber. Q150451AA						
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene		
7762646	80	79	80	81		
Blank	95	93	95	88		
LCS	97	96	98	93		
LCSD	106	103	106	103		
Limits.	50-141	54-135	52-141	50-131		

^{*-} Outside of specification

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.

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<u></u> T=Thiosulfate Preservation Codes ₽° B=NaOH 0=Other Remarks For Lab Use Only Date N=HNO3 2=H,SO H=HCI SC ဖ **Analysis Requested** Preservation Codes Received by For Eurofins Lancaster Laboratories Environmental use only Group # 53631 Sample # 7222-11 Ó 1. T. DalDIESE devide X V G N Containers Total # leto1 N N N N Other: Matrix Surface **NPDES** Water Potable **Ground** X lios ما Sediment ħ, d بهد 4 Composite **Grab** 2:23 3,5 Time (220 13 S.C 3301 12/31 02.11 500 13 Collected 18/18 2/5/15 25115 51/3/2 :2 2/27/2 2/5/15 218765 Turnaround Time (TAT) Requested (please circle) Dafe # QISMe Quote #: 15/2 Acct. #: P.O.#: Client Information FESS FRANKER TO Lancaster Laboratories

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The white copy should accompany samples to Eurofins Lancaste Rago and ion Barironmental. The yellow copy should be retained by the client. Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

(If yes, indicate QC sample and submit triplicate sample volume.)

Site-Specific QC (MS/MSD/Dup)?

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MA MCP

Type IV (CLP SOW)

If yes, format:

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Lancaster Laboratories Environmental

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For Eurofins Lancaster Laboratories Environmental use only Group # 153に37(Sample # sample # Instructions on reverse side correspond with circled numbers.

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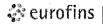
Lancaster Laboratories Environmental

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Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

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Sample Administration Receipt Documentation Log

Doc Log ID:

54435

Group Number(s): 1536371

Client: Rettew Associates, Inc.

Delivery and Receipt Information

Delivery Method:

Client Drop Off

Arrival Timestamp:

02/05/2015 18:19

Number of Packages:

1

Number of Projects:

1

State/Province of Origin:

<u>PA</u>

Arrival Condition Summary

Shipping Container Sealed:

No

Sample IDs on COC match Containers:

No

Custody Seal Present:

No

Sample Date/Times match COC:

Yes

Samples Chilled:

Yes

VOA Vial Headspace ≥ 6mm:

Air Quality Samples Present:

No

No

Paperwork Enclosed:

Yes

Total Trip Blank Qty:

2

Samples Intact:

Yes No

Trip Blank Type:

HCI

Missing Samples: Extra Samples:

No

Discrepancy in Container Qty on COC:

Nο

Unpacked by Jordan Woods (6698) at 18:46 on 02/05/2015

Samples Chilled Details

Thermometer Types:

DT = Digital (Temp. Bottle)

IR = Infrared (Surface Temp)

All Temperatures in °C.

Coaler#

Thermometer ID

Corrected Temp

Therm. Type

Ice Type

Ice Present?

Ice Container

Elevated Temp?

DT146

0.0

DΤ

Wet

Bagged

Ν

Sample ID Discrepancy Details

Sample ID on COC

Sample ID on Label

Comments

SB-18 @ 10 ft

No ID (vial)

Sample in same bag as corresponding soil jar



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

Reporting Limit none detected Too Numerous To Count International Units micromhos/cm degrees Celsius milliequivalents gram(s) microgram(s) milliliter(s) cubic meter(s)	BMQL MPN CP Units NTU ng F Ib. kg mg L	Below Minimum Quantitation Level Most Probable Number cobalt-chloroplatinate units nephelometric turbidity units nanogram(s) degrees Fahrenheit pound(s) kilogram(s) milligram(s) liter(s)
cubic meter(s)	μL pg/L	microliter(s) picogram/liter
	none detected Too Numerous To Count International Units micromhos/cm degrees Celsius milliequivalents gram(s) microgram(s) milliliter(s)	none detected MPN Too Numerous To Count CP Units International Units NTU micromhos/cm ng degrees Celsius F milliequivalents lb. gram(s) kg microgram(s) mg milliliter(s) L cubic meter(s) μL

less than <

greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight Results printed under this heading have been adjusted for moisture content. This increases the analyte weight basis

concentration to approximate the value present in a similar sample without moisture. All other results are reported on an

as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and the < Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

SUMMARY OF LABORATORY TESTING

HERR FOODS, INC.

 PROJECT #:
 101722001
 SAMPLED:
 JAY KAY TESTING, INC.

 SAMPLES:
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 LOCATION:
 5233 Lehman Road, Suite 110

 BEDORT:
 03/13/15
 Spring Grove, PA 17362

 REPORT:
 02/13/15
 REMARKS:
 Spring Grove, PA 1/362

 Phone: (410) 259-5101

BORING	SAMPLE	DEPTH (ft.)	MC %	WET DENSITY (PCF)	DRY DENSITY (PCF)	Pass #200
SB-11	Tube	14.0-15.0	17.4	130.9	111.6	43.5
		Jay Ka	y Testing (A	ASHTO-Accredited)		

02/13/15 TESTED BY: JMK REVIEWED BY: ED PAGE 1 OF 1

HERR FOODS, INC.

Boring: SB-11

3D-11

Project No.:

101722001

Sample: **Tube**

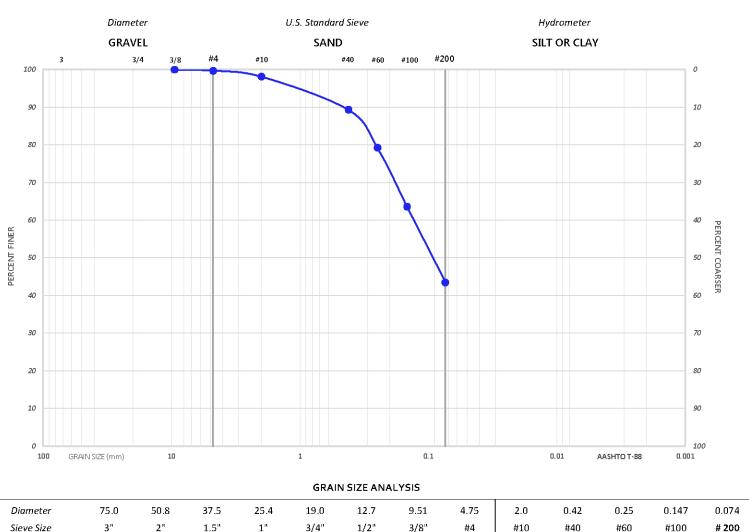
Depth:

14.0-15.0'

Sampled: Location:

_

JAY KAY TESTING, INC. 5233 Lehman Road, Suite 110 Spring Grove, PA 17362 Phone: (410) 259-5101

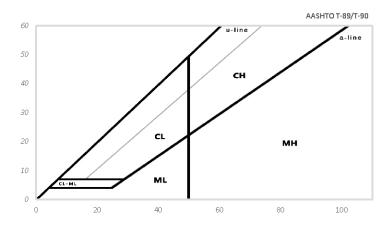


Sieve Size	3"	2"	1.5"	1"	3/4"	1/2"	3/8"	#4	#10	#40	#60	#100	# 200
% Passing	- "	-	-		-	1.=	100.0	99.7	98.2	89.4	79.3	63.6	43.5
% GRAVEL	% SAND		Coarse Grav	el	Fine Gravel	С	oarse Sand	Medium S	Sand	Fine Sand	(CC	CU
0.3	56.2		=		0.3		1.5	8.8		45.9		-	-

Moisture Content pH	17.4 -	Organic Content Other	-
ATTERBERG LIMITS		CLASSIFICATION	
Liquid Limit	-	AASHTO	-
Liquid Limit Plastic Limit	-	AASHTO USCS	-



Brown Silty SAND





Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

by SH

Sample Description: SB-24 @ 10 Ft Grab Soil

Herr Foods Inc.

LL Sample # SW 7926806 LL Group # 1568784 Account # 00721

Project Name: Herr Foods Inc.
Collected: 06/12/2015 09:20

Rettew Associates

3020 Columbia Avenue

Submitted: 06/12/2015 14:45

Lancaster PA 17603-4011

Reported: 06/27/2015 19:31

24-10

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg		ug/kg	
10237	Benzene	71-43-2	1,300		29	45.05
10237	Ethylbenzene	100-41-4	200	J	58	45.05
10237	Isopropylbenzene	98-82-8	N.D.		58	45.05
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		29	45.05
10237	Naphthalene	91-20-3	N.D.		58	45.05
10237	Toluene	108-88-3	3,300		58	45.05
10237	1,2,4-Trimethylbenzene	95-63-6	120	J	58	45.05
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.		58	45.05
10237	Xylene (Total)	1330-20-7	1,000		58	45.05
Wet Cl	nemistry SM 254	0 G-1997	%		%	
00111	Moisture	n.a.	21.8		0.50	1
	Moisture represents the loss	in weight of the	sample af	ter oven drying at		

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Į.	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q151701AA	06/19/2015 10	0:47	Anita M Dale	45.05
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201516337951	06/12/2015 09	9:20	Client Supplied	1
	MeOH							
00111	Moisture	SM 2540 G-1997	1	15174820001A	06/23/2015 13	3:29	Lisa J Cooke	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-24 @ 19 Ft Grab Soil

Herr Foods Inc.

LL Sample # SW 7926807 LL Group # 1568784 Account # 00721

Project Name: Herr Foods Inc.

Collected: 06/12/2015 09:30 by SH

Rettew Associates
3020 Columbia Avenue

Submitted: 06/12/2015 14:45

Lancaster PA 17603-4011

Reported: 06/27/2015 19:31

24-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	21	36.76
10237	Ethylbenzene	100-41-4	N.D.	42	36.76
10237	Isopropylbenzene	98-82-8	N.D.	42	36.76
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	21	36.76
10237	Naphthalene	91-20-3	N.D.	42	36.76
10237	Toluene	108-88-3	N.D.	42	36.76
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	42	36.76
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	42	36.76
10237	Xylene (Total)	1330-20-7	N.D.	42	36.76
Wet Cl	nemistry SM 254	0 G-1997	%	%	
00111	Moisture	n.a.	13.1	0.50	1
	Moisture represents the los	s in weight of the	sample after oven	drving at	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an $\,$

as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q151701AA	06/19/2015 11:10	Anita M Dale	36.76
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201516337951	06/12/2015 09:30	Client Supplied	1
	MeOH						
00111	Moisture	SM 2540 G-1997	1	15174820001A	06/23/2015 13:29	Lisa J Cooke	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-25 @ 9 Ft Grab Soil

Herr Foods Inc.

LL Sample # SW 7926808 LL Group # 1568784 Account # 00721

Project Name: Herr Foods Inc.

Collected: 06/12/2015 09:40 by SH

Rettew Associates
3020 Columbia Avenue

Submitted: 06/12/2015 14:45

Lancaster PA 17603-4011

Reported: 06/27/2015 19:31

25-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	31	45.05
10237	Ethylbenzene	100-41-4	N.D.	62	45.05
10237	Isopropylbenzene	98-82-8	N.D.	62	45.05
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	31	45.05
10237	Naphthalene	91-20-3	N.D.	62	45.05
10237	Toluene	108-88-3	N.D.	62	45.05
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	62	45.05
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	62	45.05
10237	Xylene (Total)	1330-20-7	N.D.	62	45.05
Wet C	hemistry SM 254	0 G-1997	%	%	
00111	Moisture	n.a.	27.6	0.50	1
	Moisture represents the loss	s in weight of the	sample after oven drving a	t	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q151701AA	06/19/2015 11:34	Anita M Dale	45.05
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201516337951	06/12/2015 09:40	Client Supplied	1
	MeOH						
00111	Moisture	SM 2540 G-1997	1	15174820001A	06/23/2015 13:29	Lisa J Cooke	1



Analysis Report

Account

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-25 @ 15 Ft Grab Soil

Herr Foods Inc.

LL Sample # SW 7926809 LL Group # 1568784

00721

Project Name: Herr Foods Inc.

Collected: 06/12/2015 09:50 by SH

Rettew Associates
3020 Columbia Avenue

Submitted: 06/12/2015 14:45

Lancaster PA 17603-4011

Reported: 06/27/2015 19:31

25-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	29	47.62
10237	Ethylbenzene	100-41-4	N.D.	57	47.62
10237	Isopropylbenzene	98-82-8	N.D.	57	47.62
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	29	47.62
10237	Naphthalene	91-20-3	N.D.	57	47.62
10237	Toluene	108-88-3	N.D.	57	47.62
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	57	47.62
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	57	47.62
10237	Xylene (Total)	1330-20-7	N.D.	57	47.62
Wet Cl	hemistry SM 2540	0 G-1997	%	%	
00111	Moisture	n.a.	16.6	0.50	1
			3 6:		

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q151701AA	06/19/2015 11:5	Anita M Dale	47.62
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201516337951	06/12/2015 09:50	Client Supplied	1
	MeOH						
00111	Moisture	SM 2540 G-1997	1	15174820001A	06/23/2015 13:29	Lisa J Cooke	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-26 @ 10 Ft Grab Soil

Herr Foods Inc.

LL Sample # SW 7926810 LL Group # 1568784 Account # 00721

Project Name: Herr Foods Inc.

Collected: 06/12/2015 10:10 by SH

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 06/12/2015 14:45

Reported: 06/27/2015 19:31

26-10

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles S	W-846	8260B	ug/kg	ug/kg	
10237	Benzene		71-43-2	N.D.	31	50.71
10237	Ethylbenzene		100-41-4	N.D.	62	50.71
10237	Isopropylbenzene		98-82-8	N.D.	62	50.71
10237	Methyl Tertiary Butyl	Ether	1634-04-4	N.D.	31	50.71
10237	Naphthalene		91-20-3	N.D.	62	50.71
10237	Toluene		108-88-3	N.D.	62	50.71
10237	1,2,4-Trimethylbenzen	e	95-63-6	N.D.	62	50.71
10237	1,3,5-Trimethylbenzen	e	108-67-8	N.D.	62	50.71
10237	Xylene (Total)		1330-20-7	N.D.	62	50.71
Wet Chemistry SM 2540 G-1997 % %						
00111	Moisture		n.a.	18.7	0.50	1
	Maiatura manuaganta t	he lees	in weight of the	comple often order		

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q151701AA	06/19/2015 12	2:20	Anita M Dale	50.71
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201516337951	06/12/2015 10	0:10	Client Supplied	1
	MeOH							
00111	Moisture	SM 2540 G-1997	1	15174820001A	06/23/2015 13	3:29	Lisa J Cooke	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-26 @ 15 Ft Grab Soil

Herr Foods Inc.

LL Sample # SW 7926811 LL Group # 1568784 Account # 00721

Project Name: Herr Foods Inc.

Collected: 06/12/2015 10:20 by SH

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 06/12/2015 14:45

Reported: 06/27/2015 19:31

26-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	28	49.12
10237	Ethylbenzene	100-41-4	N.D.	57	49.12
10237	Isopropylbenzene	98-82-8	N.D.	57	49.12
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	28	49.12
10237	Naphthalene	91-20-3	N.D.	57	49.12
10237	Toluene	108-88-3	N.D.	57	49.12
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	57	49.12
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	57	49.12
10237	Xylene (Total)	1330-20-7	N.D.	57	49.12
Wet Cl	hemistry SM 254	0 G-1997	%	%	
00111	Moisture	n.a.	13.7	0.50	1
	Moisture represents the loss	in weight of the	sample after over	drying at	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q151701AA	06/19/2015 13	:28 Anita M Dale	49.12
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201516337951	06/12/2015 10	:20 Client Supplied	1
	MeOH						
00111	Moisture	SM 2540 G-1997	1	15174820001A	06/23/2015 13	:29 Lisa J Cooke	1



Analysis Report

Account

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-30 @ 8 Ft Grab Soil

Herr Foods Inc.

LL Sample # SW 7926812 LL Group # 1568784

00721

Project Name: Herr Foods Inc.

Collected: 06/12/2015 10:40 by SH

Rettew Associates

3020 Columbia Avenue

Submitted: 06/12/2015 14:45 Reported: 06/27/2015 19:31 Lancaster PA 17603-4011

30-08

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SV	V-846 8	3260B	ug/kg		ug/kg	
10237	Benzene		71-43-2	53	J	28	43.33
10237	Ethylbenzene		100-41-4	N.D.		56	43.33
10237	Isopropylbenzene		98-82-8	N.D.		56	43.33
10237	Methyl Tertiary Butyl	Ether	1634-04-4	N.D.		28	43.33
10237	Naphthalene		91-20-3	N.D.		56	43.33
10237	Toluene		108-88-3	N.D.		56	43.33
10237	1,2,4-Trimethylbenzene		95-63-6	510		56	43.33
10237	1,3,5-Trimethylbenzene		108-67-8	200	J	56	43.33
10237	Xylene (Total)		1330-20-7	440		56	43.33
Wet C	hemistry SM	1 2540	G-1997	%		%	
00111	Moisture		n.a.	22.0		0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an $\,$

as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q151701AA	06/19/2015 13:	51 Anita M Dale	43.33
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201516337951	06/12/2015 10:	40 Client Supplied	1
	MeOH						
00111	Moisture	SM 2540 G-1997	1	15174820001B	06/23/2015 13:	29 Lisa J Cooke	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-30 @ 20 Ft Grab Soil

Herr Foods Inc.

LL Sample # SW 7926813 LL Group # 1568784

Account

00721

Project Name: Herr Foods Inc.

Collected: 06/12/2015 10:50 by SH

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 06/12/2015 14:45

Reported: 06/27/2015 19:31

30-20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	27	46.73
10237	Ethylbenzene	100-41-4	N.D.	55	46.73
10237	Isopropylbenzene	98-82-8	N.D.	55	46.73
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	27	46.73
10237	Naphthalene	91-20-3	N.D.	55	46.73
10237	Toluene	108-88-3	N.D.	55	46.73
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	55	46.73
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	55	46.73
10237	Xylene (Total)	1330-20-7	N.D.	55	46.73
Wet C	hemistry SM 2540	G-1997	%	%	
00111	Moisture	n.a.	14.6	0.50	1
	Mojeture represents the loss	in weight of the	cample after over	drying at	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q151701AA	06/19/2015 14:1	. Anita M Dale	46.73
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201516337951	06/12/2015 10:5	Client Supplied	1
	MeOH						
00111	Moisture	SM 2540 G-1997	1	15174820001B	06/23/2015 13:2:	Lisa J Cooke	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-28 @ 11 Ft Grab Soil

Herr Foods Inc.

LL Sample # SW 7926814 LL Group # 1568784 Account # 00721

Project Name: Herr Foods Inc.

Collected: 06/12/2015 11:40 by SH

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 06/12/2015 14:45

Reported: 06/27/2015 19:31

28-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	29	49.02
10237	Ethylbenzene	100-41-4	N.D.	58	49.02
10237	Isopropylbenzene	98-82-8	N.D.	58	49.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	29	49.02
10237	Naphthalene	91-20-3	N.D.	58	49.02
10237	Toluene	108-88-3	N.D.	58	49.02
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	58	49.02
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	58	49.02
10237	Xylene (Total)	1330-20-7	N.D.	58	49.02
Wet Cl	nemistry SM 254	0 G-1997	%	%	
00111	Moisture	n.a.	15.2	0.50	1
	Moisture represents the loss	in weight of the	sample after oven	ı drying at	

103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q151703AA	06/20/2015 00:0	3 Kevin A Sposito	49.02
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201516337951	06/12/2015 11:4	0 Client Supplied	1
	MeOH						
00111	Moisture	SM 2540 G-1997	1	15174820001B	06/23/2015 13::	9 Lisa J Cooke	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-28 @ 20 Ft Grab Soil

Herr Foods Inc.

LL Sample # SW 7926815 LL Group # 1568784 Account # 00721

Project Name: Herr Foods Inc.

Collected: 06/12/2015 11:50 by SH

Rettew Associates
3020 Columbia Avenue

Submitted: 06/12/2015 14:45

Lancaster PA 17603-4011

Reported: 06/27/2015 19:31

28-20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	25	43.18
10237	Ethylbenzene	100-41-4	N.D.	51	43.18
10237	Isopropylbenzene	98-82-8	N.D.	51	43.18
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	25	43.18
10237	Naphthalene	91-20-3	N.D.	51	43.18
10237	Toluene	108-88-3	N.D.	51	43.18
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	51	43.18
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	51	43.18
10237	Xylene (Total)	1330-20-7	N.D.	51	43.18
Wet Cl	hemistry SM 2540	G-1997	%	%	
00111	Moisture	n.a.	14.9	0.50	1
	Mojeture represents the loss	in weight of the	cample after over	draving at	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q151703AA	06/20/2015 00:	26 Kevin A Sposito	43.18
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201516337951	06/12/2015 11:	0 Client Supplied	1
	MeOH						
00111	Moisture	SM 2540 G-1997	1	15174820001B	06/23/2015 13:	29 Lisa J Cooke	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-29 @ 3 Ft Grab Soil

Herr Foods Inc.

LL Sample # SW 7926816 LL Group # 1568784 Account # 00721

Project Name: Herr Foods Inc.

Collected: 06/12/2015 12:10 by SH

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 06/12/2015 14:45

Reported: 06/27/2015 19:31

29-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	34 J	29	44.48
10237	Ethylbenzene	100-41-4	7,700	57	44.48
10237	Isopropylbenzene	98-82-8	1,400	57	44.48
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	29	44.48
10237	Naphthalene	91-20-3	3,700	57	44.48
10237	Toluene	108-88-3	N.D.	57	44.48
10237	1,2,4-Trimethylbenzene	95-63-6	49,000	570	444.84
10237	1,3,5-Trimethylbenzene	108-67-8	16,000	57	44.48
10237	Xylene (Total)	1330-20-7	28,000	57	44.48
Wet C	hemistry SM 254	0 G-1997	%	%	
00111	Moisture	n.a.	22.2	0.50	1
	Moisture represents the loss	in weight of the	sample after oven di	rving at	

103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q151703AA	06/20/2015	02:43	Kevin A Sposito	44.48
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q151703AA	06/20/2015	03:06	Kevin A Sposito	444.84
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201516337951	06/12/2015	12:10	Client Supplied	1
	MeOH							
00111	Moisture	SM 2540 G-1997	1	15174820001B	06/23/2015	13:29	Lisa J Cooke	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-29 @ 18 Ft Grab Soil

Herr Foods Inc.

LL Sample # SW 7926817 LL Group # 1568784 Account # 00721

Project Name: Herr Foods Inc.

Collected: 06/12/2015 12:20 by SH

Rettew Associates
3020 Columbia Avenue

Submitted: 06/12/2015 14:45

Lancaster PA 17603-4011

Reported: 06/27/2015 19:31

29-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	24	41.6
10237	Ethylbenzene	100-41-4	N.D.	49	41.6
10237	Isopropylbenzene	98-82-8	N.D.	49	41.6
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	24	41.6
10237	Naphthalene	91-20-3	N.D.	49	41.6
10237	Toluene	108-88-3	N.D.	49	41.6
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	49	41.6
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	49	41.6
10237	Xylene (Total)	1330-20-7	N.D.	49	41.6
Wet C	hemistry SM 254	0 G-1997	%	%	
00111	Moisture	n.a.	14.4	0.50	1
	Moisture represents the loss	s in weight of the	sample after oven	drying at	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q151703AA	06/20/2015 00:	48 Kevin A Sposito	41.6
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201516337951	06/12/2015 12:	20 Client Supplied	1
	MeOH						
00111	Moisture	SM 2540 G-1997	1	15174820001B	06/23/2015 13:	29 Lisa J Cooke	1



Analysis Report

Account

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-27 @ 9 Ft Grab Soil

Herr Foods Inc.

LL Sample # SW 7926818 LL Group # 1568784

00721

Project Name: Herr Foods Inc.

Collected: 06/12/2015 12:40 by SH Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 06/12/2015 14:45

Reported: 06/27/2015 19:31

27-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	29	48.45
10237	Ethylbenzene	100-41-4	2,000	58	48.45
10237	Isopropylbenzene	98-82-8	730	58	48.45
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	29	48.45
10237	Naphthalene	91-20-3	1,300	58	48.45
10237	Toluene	108-88-3	N.D.	58	48.45
10237	1,2,4-Trimethylbenzene	95-63-6	20,000	580	484.5
10237	1,3,5-Trimethylbenzene	108-67-8	6,700	58	48.45
10237	Xylene (Total)	1330-20-7	6,400	58	48.45
Wet Cl	hemistry SM 254	0 G-1997	%	%	
00111	Moisture	n.a.	16.1	0.50	1
			3 6		

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q151703AA	06/20/2015 0	3:29	Kevin A Sposito	48.45
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q151703AA	06/20/2015 0	3:51	Kevin A Sposito	484.5
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201516337951	06/12/2015 1	2:40	Client Supplied	1
	MeOH							
00111	Moisture	SM 2540 G-1997	1	15174820001B	06/23/2015 1	3 - 29	Lisa J Cooke	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-27 @ 20 Ft Grab Soil

Herr Foods Inc.

LL Sample # SW 7926819 LL Group # 1568784 Account # 00721

Project Name: Herr Foods Inc.

Collected: 06/12/2015 12:50 by SH

Rettew Associates 3020 Columbia Avenue

Submitted: 06/12/2015 14:45 Reported: 06/27/2015 19:31 Lancaster PA 17603-4011

27-20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	28	47.08
10237	Ethylbenzene	100-41-4	N.D.	57	47.08
10237	Isopropylbenzene	98-82-8	N.D.	57	47.08
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	28	47.08
10237	Naphthalene	91-20-3	N.D.	57	47.08
10237	Toluene	108-88-3	N.D.	57	47.08
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	57	47.08
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	57	47.08
10237	Xylene (Total)	1330-20-7	N.D.	57	47.08
Wet C	hemistry SM 254	G-1997	%	%	
00111	Moisture	n.a.	16.7	0.50	1
	Moisture represents the loss	in weight of the	sample after oven dryin	ng at	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	:	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q151703AA	06/20/2015 0	1:11	Kevin A Sposito	47.08
06171	GC/MS-5g Field Preserv.	SW-846 5035A	1	201516337951	06/12/2015 1	2:50	Client Supplied	1
	MeOH							
00111	Moisture	SM 2540 G-1997	1	15174820001B	06/23/2015 1	3:29	Lisa J Cooke	1



Analysis Report

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1568784

Reported: 06/27/2015 19:31

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD <u>Max</u>
Batch number: Q151701AA	Sample numbe	r(s): 792	6802-79268	303,792680	5-7926813			
Benzene	N.D.	25.	uq/kq	100	107	80-120	7	30
Ethylbenzene	N.D.	50.	ug/kg	96	103	80-120	8	30
Isopropylbenzene	N.D.	50.	ug/kg	92	98	76-120	7	30
Methyl Tertiary Butyl Ether	N.D.	25.	ug/kg	99	106	72-120	7	30
Naphthalene	N.D.	50.	ug/kg	86	93	64-120	8	30
Toluene	N.D.	50.	ug/kg	101	107	80-120	6	30
1,2,4-Trimethylbenzene	N.D.	50.	ug/kg	94	101	79-120	7	30
1,3,5-Trimethylbenzene	N.D.	50.	ug/kg	94	99	78-120	5	30
Xylene (Total)	N.D.	50.	ug/kg	95	102	80-120	7	30
Batch number: Q151703AA	Sample numbe	r(s): 792		314-792681	.9			
Benzene	N.D.	25.	ug/kg	100	99	80-120	1	30
Ethylbenzene	N.D.	50.	ug/kg	95	95	80-120	0	30
Isopropylbenzene	N.D.	50.	ug/kg	91	92	76-120	1	30
Methyl Tertiary Butyl Ether	N.D.	25.	ug/kg	98	99	72-120	1	30
Naphthalene	N.D.	50.	ug/kg	88	83	64-120	7	30
Toluene	N.D.	50.	ug/kg	100	99	80-120	1	30
1,2,4-Trimethylbenzene	N.D.	50.	ug/kg	93	89	79-120	4	30
1,3,5-Trimethylbenzene	N.D.	50.	ug/kg	94	89	78-120	6	30
Xylene (Total)	N.D.	50.	ug/kg	9 4	93	80-120	1	30
Batch number: 15174820001A	Sample numbe	r(s): 792	6802-79268	311				
Moisture				100		99-101		
Batch number: 15174820001B	Sample numbe	r(s): 792	6812-79268	319				
Moisture				100		99-101		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD <u>Limits</u>	RPD	RPD <u>MAX</u>	BKG Conc	DUP <u>Conc</u>	DUP <u>RPD</u>	Dup RPD <u>Max</u>
Batch number: 15174820001A Moisture	Sample 1	number(s)	: 7 926802	-792681	1 BKG:	: 7926807 13.1	12.5	5	5
Batch number: 15174820001B Moisture	Sample 1	number(s)	: 7926812·	-792681	9 BKG:	: 7926815 1 4 .9	14.4	4	5

- *- Outside of specification
- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



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Quality Control Summary

Group Number: 1568784 Client Name: Rettew Associates

Reported: 06/27/2015 19:31

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- Solid by 8260B

Batch number: Q151701AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	l oluene-d8	4-Bromotluorobenzene
7926802	79	81	80	80
7926803	88	94	87	87
7926805	82	87	82	83
7926806	71	76	70	70
7926807	78	83	77	76
7926808	70	78	69	73
7926809	82	87	80	81
7926810	59	59	59	69
7926811	78	84	80	81
7926812	57	61	56	70
7926813	86	94	86	85
Blank	86	91	88	86
LCS	83	88	8.5	85
LCSD	89	94	91	89
Limits:	50-141	54-135	52-141	50-131

Analysis Name: VOCs- Solid by 8260B

Batch number: Q151703AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7926804	60	61	62	75
7926814	83	87	81	80
7926815	83	89	82	81
7926816	73	79	75	79
7926817	70	74	70	74
7926818	71	78	73	74
7926819	7 9	83	79	75
Blank	86	89	86	82
LCS	83	86	84	83
LCSD	82	84	83	81
Limits:	50-141	54-135	52-141	50-131

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Anvironmental Analysis Raquestohain oitelistook

For Eurofins Lancaster Laboratories Environmental use only 19 Group # 150 Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Sol

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Lancaster Laboratories

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6 Ş T=Thiosulfate Preservation Codes me <u>a</u> me B=NaOH 0=Other ပ္စ Remarks 7/6/ 7, For Lab Use Only Relinquished by Commercial Carrier: S=H,SO4 N=HNO3 Other 무무 Temperature upon receipt SCR#: FSC: ୕ FedEx **Analysis Requested** Preservation Codes Received by Received by UPS 14.45 6-8-15/632 13,30 (if yes, indicate QC sample and submit triplicate sample volume.) me ž MINE Yes ž)ate Site-Specific QC (MS/MSD/Dup)? Yes Total # EDD Required? をとられるとまずり Other: Matrix Surface If yes, format: Water **Ground** Potable Sediment 1105 4 inquished by Relinquished by elinguished by Composite Grab 8.80 Time 3 0012210 100 3 0.10 Collected Type VI (Raw Data Only) CT RCP 12/15 12 16 6 10 6 100 -(1) (a) (b) 11211 Date Turnaround Time (TAT) Requested (please circle) :# CISMc Acct. #: P.O. #: TX TRRP-13 (Rush TAT is subject to laboratory approval and surcharge.) Client Information MA MCP Data Package Options (circle if required) AND THE TANK 1 Sample Identification Environmental Vame of state where samples were collected; Type III (Reduced non-CLP) മ がないなが ö the Co 00 T - T 3 - Par SOF TONG Ž, がられるころ NYSDEC Category A ٨ Equivalent/non-CLP) Type I (EPA Level 3 Standard Date results are needed: ૈ ٥ ્ ٥ Ċ E-mail address: とのから ACAIL. 30 73 人はしな グラング roject Manager roject Name/# ampler: (<u>®</u> (n

The white copy should accompany samples to Eurofins Lancaster Laboratories. Environmental. The yellow copy should be retained by the client. Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

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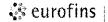
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ေ 7975 T=Thiosulfate **Preservation Codes** Lime Fime me Time B=NaOH ပ္ 0=Other Date (5/2/5) Remarks ميت For Lab Use Only Date Date Date **S**=H₂SO₄ Relinquished by Commercial Carrier: N=HNO3 H-HCI Temperature upon receipt SCR#: ဖ FedEx **Analysis Requested** Preservation Codes Received by eceived by Received by Received-by Received by NPS STATE AND For Eurofins Lancaster Laboratories Environmental use only Group # 15 6 7602 - 19 Instructions on reverse side correspond with circled numbers. (if yes, indicate QC sample and submit triplicate sample volume.) Time ime Time Time Yes g Date Date Site-Specific QC (MS/MSD/Dup)? Yes 5 Total # of Containers EDD Required? Other: Matrix **NPDES** Surface If yes, format: Water Potable Ground ⊠lios Sediment 4 Relinquished by elinquished by Relinquished by Relinquished by Composite Grab က 2007 17 **ひなむ** Time Collected Type VI (Raw Data Only) CT RCP 27 1216 100 Date Turnaround Time (TAT) Requested (please circle) 0 Acct. # Quote #: P.O. #: TX TRRP-13 (Rush TAT is subject to laboratory approval and surcharge.) Client Information MA MCP 8) Data Package Options (circle if required) RIEN ANDER Lancaster Laboratories Sample Identification Environmental HENCE PERSONAL World Tokes がないがら Type III (Reduced non-CLP) Type I (Validation/non-CLP) vame of state where samples were collected: Type IV (CLP SOW) Date results are needed: (1) 🚓 eurofins 13-30 100 m E-mail address: roject Manager: roject Name/#: R.

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Sample Administration Receipt Documentation Log

Doc Log ID:

76801

Group Number(s): \SC8784

Client: Rettew Associates

Delivery and Receipt Information

Delivery Method:

Client Drop Off

Arrival Timestamp:

06/12/2015 14:45

Number of Packages:

1

Number of Projects:

1

State/Province of Origin:

PΑ

Arrival Condition Summary

Shipping Container Sealed:

Yes

Sample IDs on COC match Containers:

Nο

Custody Seal Present:

No

Sample Date/Times match COC:

Yes

Samples Chilled:

Yes

VOA Vial Headspace ≥ 6mm:

N/A

Paperwork Enclosed:

Yes

Total Trip Blank Qty:

0

Samples Intact:

Yes

Air Quality Samples Present:

No

Missing Samples:

Nο

Extra Samples:

No Yes

Discrepancy in Container Qty on COC:

Samples Chilled Details

Thermometer Types:

DT = Digital (Temp. Bottle)

Unpacked by Timothy Cubberley (6520) at 15:43 on 06/12/2015

IR = Infrared (Surface Temp)

All Temperatures in °C.

Thermometer ID

Corrected Temp

Therm. Type

Ice Type Ice Present? Ice Container

Elevated Temp?

DT131

2.4

DT

Wet

Container Quantity Discrepancy Details

Loose

Ν

Sample ID on COC

Container Qty. Received

Container Qty. on COC

Comments

All samples

Sample ID Discrepancy Details

Sample ID on COC

Sample ID on Label

Comments

SB-29@18

SB-29@3

Already have the @3 sample. Only the jar is marked wrong.



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

less than <

greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight Results printed under this heading have been adjusted for moisture content. This increases the analyte weight basis

concentration to approximate the value present in a similar sample without moisture. All other results are reported on an

as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and the < Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

APPENDIX E Waste Disposal Manifests



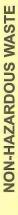
ERC NON-HAZARDOUS WASTE MANIFEST

	NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EF	NPN8.Z			Manifest Document No.	D17003	2. Page 1 of	
	Generator's Name and Mailing Address			Site Address					
	Herr Foods Incorporated 273 Old Baltimore Pike Nottingham, PA 19362 4. Generator's Phone (** 6 10-932-9330			Olic Addioss					
	Transporter 1 Company Name Environmental Recovery Corp.	200 M	6.	US EPA ID Number PAD98726	6749	A. State Transp	717	-393-2627	
	7. Transporter 2 Company Name		8.	US EPA ID Number		C. State Transp	porter's ID		
						D. Transporter	2 Phone		
	Designated Facility Name and Site Address Environmental Recovery Corp 1076 Old Manhelm Plke Lancaster, PA 17601	oration	10.	US EPA ID Number PAD98726	6749	E. State Facility's ID 717-393-2627 F. Facility's Phone			
	11. WASTE DESCRIPTION			1	No.	ontainers Type	13. Total Quantity	14. Unit Wt./Vol.	
G	a. NON-RCRA / NON-DOT Drill	Cuttings Soil		Jw) 3	ЭM	10,508 ÉST.	P.	
E N E	b. NON-RCRA / NON-DOT Purç	ged Groundwat	ег	*	3	ЭM	150 Est.	6.	
R A T	c.								
O R	d.								
	G. Additional Descriptions for Materials Listed Above 1.) Approval #: 1503-00818-S 2.) Approval #: 1503-00819-L			A		H. Handling C	odes for Wastes Listed Abov	е	
	15. Special Handling Instructions and Additional Infor	mation					PO:		
	16. GENERATOR'S CERTIFICATION: I hereby certifing proper condition for transport. The materials d								
	Printed / Typed Name	eggman)	s	ignature	1/1 2		Mon		
T	17. Transporter 1 Acknowledgement of Receipt of Ma	aterials		MINO	V			100110	
R A	Printed / Typed Name		s	ignature)			Mon	Date th Day Year	
A N S	J. (1)12, 145			1.2/	i a iAm	4	12		
PO	18. Transporter 2 Acknowledgement of Receipt of Ma	iterials		1 1	7 cm	,,,	00	Date	
R T E R	Printed / Typed Name		(ngnature ((Mon	th Day Year	
F A C	19. Discrepancy Indication Space								
1	20. Facility Owner or Operator: Certification of receipt	t of the waste materials	covered by	this manifest, except as noted in	item 19.				
-								Date	
T Y	Printed / Typed Name		s	ignature			Mon	th Day Year	



ERC NON-HAZARDOUS WASTE MANIFEST

	NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA	ID No. V HAZ	7		Manifest Document No.	D20395	2, Page 1 of	1	
	3. Generator's Name and Mailing Address Herr Foods Incorporated 273 Old Baltimore Pike	4.33		Site Address						
	4. Generator's Phone () 5. Transporter 1 Company Name		6.	US EPA ID Number		A. State Trans				
	Environmental Recovery Corporation 7. Transporter 2 Company Name	oration	8.	PAD9872 US EPA ID Number	266749	B. Transporter C. State Trans	1 Fhone	717-393-2627		
						D. Transporter	r 2 Phone			
	Designated Facility Name and Site Address Environmental Recovery Corp 1076 Old Manheim Pike Lancaster, PA 17601	oration	10.	US EPA ID Number E. State Facility's ID 717-393 F. Facility's Phone			2627			
	11. WASTE DESCRIPTION				No	Containers Type	13. Total Quantity	14 Ur Wt./	nit	
G	a. Non RCRA/DOT Liquids (Dril	l Cuttings)		Ju) 3 看	3)M	150 Est.	- "	7.	
EXE	b. Non RCRA/DOT Liquids (Pur	er)		13)M	7,500 EST.	1	0.		
R A T	C.									
O R	d.			4						
	G. Additional Descriptions for Materials Listed Above 1.) Approval #: 1506-01926-L	PT				H. Handling (Codes for Wastes Listed Above	е		
	2.) Approval #: 1506-01927-L									
	15. Special Handling Instructions and Additional Information	nation		PO:						
	16. GENERATOR'S CERTIFICATION: I hereby certific in proper condition for transport. The materials do									
100			la					Date	West and	
	Printed/Typed Name		Sigr	nature // // //	MA	\wedge	Mon O	h Day	Year / >	
T R	17. Transporter 1 Acknowledgement of Receipt of Ma	terials	Sign	nature	V		Mon	Date th Day	Year	
AZSP	Printed / Typed Name		Sigr	21	1991	Ages	Ø.	7 011	15	
0	18. Transporter 2 Acknowledgement of Receipt of Ma	terials	1		41			Date	Vasa	
R T E R	Printed / Typed Name		Sigr	nature			Mon	h Day	Year	
FAC	19. Discrepancy Indication Space									
Ļ	20. Facility Owner or Operator: Certification of receipt	of the waste materials co	overed by this	s manifest, except as noted	l in item 19.			Date		
T Y	Printed / Typed Name		Sign	nature	Ver 1		Mon		Year	





ERC NON-HAZARDOUS WASTE MANIFEST

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	011-1-11		Manifest Document No.	D25735	2. Page 1 1 of
3. Generator's Name and Mailing Address 273 Old Baltimore Pike Nottingham, PA 19362 4. Generator's Phone (Site Address				
4. Generator's Phone (5. Transporter 1 Company Name Corpor	ation 6.	US EPA ID Number	9	A. State Transp	porter's ID 747_3	193-2627
Environmental/Necovery Corpor	ation	FAD90720074	9	B. Transporter		N1. 302 8 32 1
7. Transporter 2 Company Name	8.	US EPA ID Number		C. State Transp		
9 Designated Facility Name and Site Address	10.	US EPA ID Number		D. Transporter E. State Facility		
9. Designated Facility Name and Site Address 10/6 Old Manheim Pike Lancaster, PA 17601	ation	PAD98726674	9	F. Facility's Pho	717-393-26	27
11. WASTE DESCRIPTION			6	ontainers	13.	14.
			No.	Type	Total Quantity	Unit Wt./Vol.
a. Non RCRA/DOT Liquids (Drill	Cuttings)		2)14	1,100 Ks7	P.
b.		4				
C.						
d.						
G. Additional Descriptions for Materials Listed Above 1.) Approval #: 1506-01926-LP	г		i.	H. Handling C	odes for Wastes Listed Above	
15. Special Handling Instructions and Additional Information	mation			2	PO:	э
GENERATOR'S CERTIFICATION: I hereby certifing in proper condition for transport. The materials described by the condition of transport.	y that the contents of this shipmen asscribed on this manifest are not s	at are fully and accurately described a subject to federal hazardous waste re	and are in gulations.	all respects		Date
Printed / Typed Name		Signature	In	~	Moni /2	TANGERS AND AND AND AND AND AND AND AND AND AND
17. Transporter 1 Acknowledgement of Receipt of Ma				±		Date
Printed / Typed Name	1	Signature			Mont	h Day Year
18. Transporter 2 Acknowledgement of Receipt of Ma	terials	1 1/1	Jun			Date
Printed / Typed Name		Signature	/		Mon	h Day Year
19. Discrepancy Indication Space		1			-	
20. Facility Owner or Operator: Certification of receipt	of the waste materials covered by	this manifest, except as noted in ite	m 19.			Date
Printed / Typed Name KAHUM Meamaal		Signature KOHHANAN CANA	LICHE	0	Mont	

APPENDIX F Low Flow Groundwater Purging and Monitoring Data Sheets



We answer to you.

Site: Herr Foods, Inc., Nottingham, PA Date: 3/1/15

SUNNY 50° Weather:

MW-1 Well No.:

27 ft. Well Depth:

2-inch

7 to 27 ft.

Pump: 4-Stage SS Mega Monsoon With DC Controller

Field Personnel: Ed Dziedzic

Meter: YSI 556 Multiparameter With Flow Cell

Depth To Water Before Pump Installation: Z , $Z\mathcal{C}$ Screened Interval:

Sample Time: 10:55 Pump Intake Depth: Well Diameter:

Ī		-	-			-		0271		-	1	ř	ì			Г
		Depth To	Water	2.20	3.40	3.36	3.25	3,26	3.18							NA
-	Pumping	Rate*	(ml/min)	600	500	500	400	200	200							2
	.dı		Change	AN			0	10.07	-0.21							.2°C
Sample mine.	Temp.	(၁)	Reading		11.40	11.65	11.65	11.72	11.51							+/- 0.2°C
	s	r) (1	Change	AN				_								f Reading
±0.10±	ZOT	(g/L)	Reading		0.245	0.251	0.267	6.05 - 0.34 6.295 + 9%	6.03 -0.02 0.299 +1%							+/- 10% of Reading
	0	/L)	Change	NA		-		-0.34	-0.02							+/- 0.2 mg/L**
c Depend	00	(mg/L)	Reading		7.25	6.68	6.39	6.05	6.03						o.	+/- 0.2
amp mean copen.	ο,	۷)	Change	NA				8.7 4	- 0.9			,				=/- 20 mV**
	ORP	(mV)	Reading		309.4	304.7	301.1	294.3 \$ 6.8	293.4 - 0.9							=/- 20
	ctivity	cm)	Change	NA					+2%							+/- 3% of Reading
	Conductivity	(mS/cm)	Reading		O.277	6.285	0.302	6.337	0,342 +2%							+/-3% of
	-	(r	Change	NA				+0.09 6.337 +10%			A			25		+/- 0.2 SU
	Hd	(SU)	Reading		6.03	6.12	6.15	6.24	6.25 +0.01		10					+/- 0
			Time	10:10	10:32	10:36	16:41	10:47	10:51							Stabilization

5.94 6.24

* 10:10 - 10:32 ADDED CLAMPS AND ADVISED FROM CELL TO CONTROL LEARLS, ADJUSTED from MATE

^{*} Not to exceed 500 ml/min

^{**} Resolution accuracy of YSI 556



Site: Herr Foods, Inc., Nottingham, PA Date: 3/9/15

Weather: Well No.:

MW-2

23 ft.

Well Depth:

SUNNY

Field Personnel: Ed Dziedzic

Meter: YSI 556 Multiparameter With Flow Cell

Pump: 4-Stage SS Mega Monsoon With DC Controller

Screened Interval:

Depth To Water Before Pump Installation: 10 ft. Pump Intake Depth:

Sample Time: 12: 00 3 to 23 ft.

Well Diameter:		2-inch				Pump Intake Depth:	ce Depth:		10 ft.		Sample Time:	ne: 12:00	00	
	ο.	풘	Condu	Conductivity	ö	ORP	۵	DO	π	TDS	Temp.	пр.	Pumping	
	s)	(SU)	(mS/cm)	(cm)	(mV)	(V)	(mg/L)	(1/5	(g/L)	(I)	(၁)	0	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
N:34		NA		NA		NA		NA		NA		NA	009	2.96
15:31	5.35		1.982		323.1		7.01		2627		10.28		450	4.88
11:44	5.32		2.028		326.8		6.39		808.1		10.83		600	4.35
11:50	5.32	0	2.040		328.4		6.28		518.1		10.01		350	4.42
11:55	5.32	0	2.058	%1+	330.9	42.5	05.9	20.0+	1.830	0% 1+	10.73	40.07	450	4.30
	*				10									×
							И							
										9				
Chabilization					33		8	U	ğ					
Criteria	,,	+/- 0.2 SU	+/-3%0	+/- 3% of Reading	=/- 50	=/- 20 mV**	+/-0.2	+/- 0.2 mg/L**	+/- 10% c	+/- 10% of Reading) <i>-</i> /+	+/-0.2°C	NA	4

^{*} Not to exceed 500 ml/min

^{**} Resolution accuracy of YSI 556



Site: Herr Foods, Inc., Nottingham, PA Date: 3/9/15

200 SUNDY

MW-3

Well No.: Weather:

Field Personnel: Ed Dziedzic

Pump: 4-Stage SS Mega Monsoon With DC Controller

Meter: YSI 556 Multiparameter With Flow Cell

3.38 Depth To Water Before Pump Installation: 5 to 25 ft. Screened Interval:

2-inch 25 ft. Well Depth:

11 ft. Sample Time: 14:45	TDS Temp. Pumping (g/L) (°C) Rate* Depth To	Change Reading Change (ml/min)	1.373 NA 10.30 NA 668 3.40	10.97	11.41 506	15.71	+ ONE 18 11.58 +0.07 400					
14:45	Pump	Т		40	50	300						
me:	emp.	<u> </u>		7			+0					
Sample T	F	Reading	10.30	10.9	11.41	11.51						
	S (1	Change	NA				+ One 16					
11 ft.	OT (8)	Reading	1.333	1.417	1.483	1.484	1.508					
	(5)	Change	NA				+0.10					
Depth:	DO (mg/L)	Reading	5.50	2.97	2 43	2.59	2.69					
Pump Intake Depth:		Change	NA				-4.1				2	
	ORP (mV)	Reading	196.9	201.7	196.1	8.881	179.7	-				
	tivity m)	Change	NA				701+					
	Conductivity (mS/cm)	Reading	1.550	1.584	1.694	1.707	1.727					100
2-inch		Change	NA			40.01	40.07		0			
	Hd (US)	Reading	6.24	6.03	5.99	6.01	6.03 +					
Well Diameter:		Time	14:25	14:32	14:36	14:40	14:45					Chabiliantion

^{*} Not to exceed 500 ml/min

^{**} Resolution accuracy of YSI 556



Site: Herr Foods, Inc., Nottingham, PA
Date: 3 / 9 / 15

Field Personnel: Ed Dziedzic

Pump: 4-Stage SS Mega Monsoon With DC Controller

3.53d Puleen Sample Time: 14:05 3.84 Meter: YSI 556 Multiparameter With Flow Cell 0 to 19 ft. Depth To Water Before Pump Installation: 10 ft. Pump Intake Depth: Screened Interval: SUNNY 50° MW-4 2-inch 19 ft. Well Depth: Weather: Well No.:

Well Diameter:		2-inch				Pump Intake Depth:	ce Depth:		10 ft.		Sample Time: 14:05	le: 14:	50	
	Hd	I	Conductivity	ctivity	Ö	ORP	00	0	TDS		Temp.	ηþ.	Pumping	
	(SU)	(n	(mS/cm)	(cm)	(mV)	(A)	(mg/L)	(1/1)	(g/L)	(_)	(°C)	c)	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
13:34	6.26	NA	0.982	NA	34.3	NA	4.45	NA	0.859	NA	11.35	NA	300	3.85
13:40	6.38	5)	0.977		23.4		503		258.0		11.67		400	4.41
13:45	6.50		0.987		11.6		14.2		0.833		11.95		300	4.55
13:51	6.54		0.979		2.7		11.2		0.843		12.14		400	4.38
13:33	6.54		0.978		9.0	Ē	2.00		0.840	94,	12.21		300	4.40
14:00	6.54	0	0.979	41%	8.8	8.0+	1.96	-0.04	6.840	0/0	52.21	-0.02	350	4.42
							10							
							10							
							6							
Stabilization Criteria	0-/+	+/- 0.2 SU	+/-3% 0:	+/- 3% of Reading	=/- 20	=/- 20 mV**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% c	+/- 10% of Reading	0-/+	+/- 0.2°C	Z	NA

6.24

^{*} Not to exceed 500 ml/min

^{**} Resolution accuracy of YSI 556



Site: Herr Foods, Inc., Nottingham, PA
Date: 3 (9 / 15

SUNNY 50°

Weather: Well No.:

Field Personnel: Ed Dziedzic

Pump: 4-Stage SS Mega Monsoon With DC Controller

Meter: YSI 556 Multiparameter With Flow Cell

Screened Interval:

354 Pureos

6.21

6.24

Sample Time: 13:05 3.44 7 to 27 ft. Depth To Water Before Pump Installation: Pump Intake Depth: **MW-5** 2-inch 27 ft. Well Depth:

		., , ,				מבווולסם	Depuil to water belone rump installation.	e rump ilis	rallation.	1 1 1				
Well Diameter:		2-inch				Pump Intake Depth:	ke Depth:		10 ft.		Sample Time:	ne: 13:05	05	
	a.	Hd	Condu	Conductivity	Ö	ORP	8	0	ľ	TDS	Temp.	np.	Pumping	
	S)	(SU)	(mS/cm)	(cm)	m)	(mV)	(mg/L)	:/r)	(g)	(g/L)	(°C)	()	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
12:47		NA		NA		NA	g	NA		NA	7	NA	009	3.42
12:50	4.73		1.288		2.369		4.03		1:135		98.11		600	3.85
12:55	4.73		1.351		227.2		3.23		1.172		12.01		400	3.98
55:21	4.75		1.388		225.6		2.98		1.190		12.30		500	4.15
13:03	4.73	-0.02	1.403	190	223.8	-1.8	3.11	+0.13	1.197	%1	12.56 40.16	40.16	200	4.16
						ís.								
						¥2.								
							И							
							N							
Stabilization		+/- 0.2 SU	+/-3%0	+/-3% of Reading	=/- 20	=/- 20 mV**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% c	+/- 10% of Reading) -/+	+/- 0.2°C	NA	

^{*} Not to exceed 500 ml/min

^{**} Resolution accuracy of YSI 556



We answer to you.

Site: Herr Foods, Inc., Nottingham, PA Date: 4 | 1 | 15

SUNINY 450

Weather: Well No.:

MW-1

Field Personnel: Ed Dziedzic

Pump: 4-Stage SS Mega Monsoon With DC Controller

Meter: YSI 556 Multiparameter With Flow Cell

7 to 27 ft.

Screened Interval:

4 gal Punces

			Depth To	Water	1.33	2.39 5.81	2.42	2.46 5.81	2,40	2.37	2.35 5.81	2.34	Ti.				NA
	7	Pumping	Rate*	(ml/min)		9	525	500	500	500		500					
	ne: 8:47	Temp.	(°C)	Change	NA						10.02	10.04					+/- 0.2°C
4	Sample Time:	Tel	,	Reading		11.03	11.40	11.72	11.79	41:14	11.76	11.77					-/+
1.39		TDS	(B/L)	Change	NA						710%	% 1+					+/- 10% of Reading
tallation:	10 ft.	F	(g	Reading		0.169	0,169	0.169	0.170	121.0	0,172	0.174					+/- 10%
e Pump Ins		00	(mg/L)	Change	NA						7.0 -	-0.15					+/- 0.2 mg/L**
Depth To Water Before Pump Installation: 1,39 F	ke Depth:	۵	Œ)	Reading		7.53	6.68	5.87	5.40	5.26	5.06	4.91					+/- 0.2
Depth To V	Pump Intake Depth:	ORP	(mV)	Change	NA						1.1 +	1-1+		SP.			3 mV**
		0	Ē	Reading		494.1	498.8	502.4	504.6	505.4	506.5	507.6					=/- 20
		Conductivity	(mS/cm)	Change	NA			•		•	+ 100 1%	1 1%					+/-3% of Reading
		Condu	(mS	Reading		0.197	0,197	0,196	6.19	0.196	0,198	0.199 + 1%		04			+/-3%
27 ft.	2-inch	Hd	(SU)	Change	NA						40.01	-0.03					+/- 0.2 SU
:	eter:	٥	s)	Reading		6.25	5.96	500	5.86	5.85	5.39	5.81				70)-/+
Well Depth:	Well Diameter:		2004	Time	8:24	8:29	8:31	8:34	8:38	8:41	8:43	8:46					Stabilization Criteria

^{*} Not to exceed 500 ml/min

^{**} Resolution accuracy of YSI 556



Field Personnel: Ed Dziedzic

Site: Herr Foods, Inc., Nottingham, PA Date: 4/1/15

SUMNY 450

Weather:

Well No.:

MW-2

Pump: 4-Stage SS Mega Monsoon With DC Controller

Meter: YSI 556 Multiparameter With Flow Cell

3 to 23 ft.

Screened Interval:

3.5gd Purber

で、ころ Depth To 7.66 2.21 3.06 277 3.04 3.1 M Pumping Rate* (ml/min) 300 400 400 400 750 375 Sample Time: 7:48 + 0.03 Change Temp. ★ (°C) A 0 +/-0.2°C Reading 16.30 - 0.07 1.882 +2% 10.22 10,22 9.97 9.8 995 Depth To Water Before Pump Installation: 2.18 Hz Change 4-19 +/- 10% of Reading A TDS (g/L) 1.909 Reading 1.850 868 1.848 .86 10 ft. 10.01 Change +/- 0.2 mg/L** ΝA * 00 (mg/L) Reading 5.30 2.93 6.40 3.37 2.86 2.87 Pump Intake Depth: Reading Change 2,121 +2% 468,6 +0.4 A 2.084 +2% 468.2 -2.1 =/- 20 mV** (M) ORP 494.9 482.2 507.5 470.3 Change +/- 3% of Reading M Conductivity (mS/cm) Reading 2,038 2.039 2.018 2,047 Change 10.0+ 46.01 MA 2-inch 23 ft. +/- 0.2 SU PH (SU) Reading 5.25 5.27 5.20 5.25 5.26 Well Diameter: Well Depth: 2.40 9:40 Stabilization 9:44 9:27 からか 6:3 9:37 Criteria Time

^{*} Not to exceed 500 ml/min

^{**} Resolution accuracy of YSI 556



Site: Herr Foods, Inc., Nottingham, PA Date: 4 | 1 | 15

50NAY 450

Weather:

Well No.:

MW-5

27 ft.

Well Depth:

Field Personnel: Ed Dziedzic

Pump: 4-Stage SS Mega Monsoon With DC Controller

Meter: YSI 556 Multiparameter With Flow Cell

7 to 27 ft. Screened Interval:

2.94 /2 Depth To Water Before Pump Installation:

3.534 Rules

Depth To 3.35 2.80 3.29 (ml/min) Pumping 600 550 400 315 400 000 400 40.02 Change AN Sample Time: Temp. Reading 12.08 12,17 12.19 11.70 Change 1 100 M (g/L) Reading 1.482 1,468 474 1467 1.451 474 6.20 Change M (mg/L) Reading 2.97 Pump Intake Depth: 6.60 2.88 2.93 4.20 3.17 Change 1:6 A (mV) ORP Reading 285.4 276.0 277.3 274.4 281.1 283. 0/01-Reading Change AN Conductivity (mS/cm) 1.679 1.698 1,705 1.685 1.682 1.701 10.01 Change Α 2-inch PH (SU) Reading 4.93 4.89 5.01 4.89 4.94 4.91 Well Diameter: 0:42 10:49 0:48 65:09 0:52 0:59 10:55 Time

3.25

300

10.09

1208

1000

1.456

-0.08

2.9

272.6 - 1.8

1,688 < 1%

4.89

0:

MA

+/-0.2°C

+/- 10% of Reading

+/- 0.2 mg/L**

=/- 20 mV**

+/-3% of Reading

+/- 0.2 SU

Stabilization

Criteria

^{*} Not to exceed 500 ml/min

^{**} Resolution accuracy of YSI 556



We answer to you.

Site: Herr Foods, Inc., Nottingham, PA Date: 4[1[15

50MNY 45° Weather:

Pump: 4-Stage SS Mega Monsoon With DC Controller

Field Personnel: Ed Dziedzic

Meter: YSI 556 Multiparameter With Flow Cell

Well Depth: 13 ft. Depth To Water Before Pump Installation: 3,37 ft. \$ HCONL \$ Trans. Sample Time: 12,07 Well Diameter: 2-inch Pump Intake Depth: 10 ft. 53.7 ft. \$ HCONL	Well No.:		MW-4				Screened Interval:	ıterval:		0 to 19 ft.				550	5 sal Purcer	
Ph Conductivity ORP DO TDS Temp. Pumpling Do TDS TEMP. Do TDS TEMP. Do TDS TEMP. Do TDS	Well Depth		19 ft.				Depth To V	Vater Before	e Pump Inst	allation:	3.37 4	3 SHE	en, sa	rows c	DOOR	
Faceding Conductivity Conducti	Well Diame		2-inch				Pump Intal	ce Depth:		10 ft.	SZ.	Sample Tin	ie: [12],	7		
Reading Change Reading R		d Ø	ı S	Condu	ctivity	jo E	₹P	Ω Su	0	T (2)	Si	Ten	dr.	Pumping	- 	
9.92 I. 193 76.6 5.40 I. 027 I. 078 NA 3.37 9.92 I. 159 62.5 2.90 I. 021 II. 27 550 4.40 9.54 I. 158 -157.8 2.73 0.991 II. 44 600 4.45 8.54 I. 1031 -167.0 2.05 0.998 II. 44 600 4.45 8.19 I. 077 I. 054 -23.4 I. 70 0.905 II. 22 400 7.35 7.58 -0.24 I. 048 212 -3.34 II. 70 0.905 II. 22 400 7.35 7.58 -0.24 I. 048 212 -3.34 II. 70 0.905 II. 22 400 7.30 7.39 -0.19 I. 055 2192 -10.1 II. 80 40.04 0.907 +12.6 II. 27 -0.02 450 4.38 7.99 +0.025U +1.3% of Reading = -1.20 mV** +1.00.20 mg/L** +1.10% of Reading +1.02°C NA	Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water	
4.92 1.193 76.6 5.40 1.071 1078 5.500 4.40 1.53 1.151 62.5 2.92 0.991 11.64 600 4.45 8.54 1.131 -167.8 2.73 0.993 11.64 400 4.45 8.19 1.071 2.05 0.993 11.44 400 4.45 7.82 1.054 -23.4 1.71 0.905 11.24 400 4.45 7.58 -0.24 1.048 21.2 -8.8 +14.6 1.71 0.905 12.2 900 4.35 7.58 -0.19 1.055 21.96 -10.1 -1.3 1.80 +0.04 +1.8 12.2 4.28 4.28 7.39 -0.19 1.055 21.96 -10.1 -1.3 1.80 +0.04 +1.8 12.2 4.28 1.39 -0.19 1.05 -1.05 1.00 -0.02 450 4.28 1.05 -0.10 -1.05 -1.00 -0.00 -1.00 -0.00 4.28 1.30	11:38		NA		NA		NA		NA		NA		NA		3.37	
1.53 1.159 62.5 2.90 1.021 11.37 5500 4.40 2.13 0.993 11.64 60.0 4.45 8.14 1.131 -167.0 2.05 0.993 11.64 40u 4.45 8.19 1.077 -74.2 1.80 0.902 12.22 40u 4.35 7.50 -0.24 1.048 -1.5 -2.3 4.40 1.70 -0.01 0.902 -1.5 12.27 40u 4.35 7.50 -0.24 1.048 -1.5 -1.3 1.80 40.04 1.40 1.27 40u 30u 4.35 7.51 -0.19 1.055 -1.04 -1.3 1.80 40.04 1.40 1.27 40u 30u 4.35 7.52 -0.19 1.055 -1.04 -1.3 1.80 40.04 1.40 1.20 4.20 7.54 -0.19 1.055 -1.04 -1.3 1.80 40.04 1.40 1.20 4.20 7.54 -0.19 1.055 -1.04 -1.3 1.80 40.04 1.40 1.20 7.54 -0.19 1.055 -1.04 -1.3 1.80 40.04 1.40 1.20 4.20 7.54 -0.19 1.055 -1.05 -1.3 1.80 40.04 1.40 1.20 4.20 7.55 -0.24 1.048 -1.05 1.20 4.20 7.50 -0.00 4.45 4.20 7.50 -0.00 4.30 7.50 -0.00 4.30 7.50 -0.00 4.30 7.50 -0.00 4.30 7.50 -0.00 4.30 7.50 -0.00 4.30 7.50 -0.00 4.30 7.50 -0.00 4.30 7.50 -0.00 7.	11:41	9.92		1, 193		76.6		5.40		1:001		80:01				
9.54 1.139 -167.8 2.73 0.999 11.46 400 4.45 8.19 1.071 -74.2 1.86 0.925 11.46 400 4.45 7.82 -0.24 1.054 -13.4 1.77 0.905 12.27 12.27 12.27 7.53 -0.24 1.048 21.2 -1.3 1.80 12.04 0.907 11.2 12.27 12.07 7.54 -0.19 1.055 21.92 -10.1 1.80 12.00 11.2 12.27 12.07 12.8 7.39 -0.19 1.055 21.92 -1.03 1.80 12.04 0.907 11.2 12.27 12.07 12.8 7.54 -0.19 1.055 21.92 -1.03 1.80 12.04 0.907 11.2 12.27 12.07 12.8 7.54 -0.19 1.055 21.92 -1.03 1.80 12.07 12.07 12.07 12.07 7.55 -0.24 1.048 21.2 21.20 21.20 21.20 7.50 -1.03 1.040 1.040 1.040 1.040 1.040 7.50 -1.03 1.040 1.040 1.040 1.040 1.040 7.50 -1.03 1.040 1.040 1.040 1.040 7.50 -1.03 1.040 1.040 1.040 1.040 7.50 -1.03 1.040 1.040 1.040 1.040 7.50 -1.03 1.040 1.040 1.040 7.50 -1.040 1.040 1.040 1.040 7.50 -1.040 1.040 1.040 7.50 -1.040 1.040 1.040 7.50 -1.040 1.040 1.040 7.50 -1.040 1.040 7.50 -1.040 1.040 7.50 -1.040 1.040 7.50 -1.04	11:46	9.53		1.1691		65.29		2.90		1.021		11.37		2500	Ĭ	6.87
8.19 1,131 -167,0 2,05 0,988 11.46 404 4.45 32.0 4.35 1,057 -23.4 1,17 0.905 12.27	11:48	9.17		1.138		8771-		2.73		166.0		11.64		600		*>0.0
3.19 1,077 -24.2 1.86 0,921 11.93 300 4.30 7.82 1,054 -23.4 1.77 0.905 12.22 200 4.35 7.58 -0.24 1.048 <12.6	11:51	3,54		1,131	26	0'291-		2.05		0.988		11.46		400		
7.58 -0.24 1.054 -23.4 1.77 0.905 12.22 200 4.35 1.58 -0.24 1.048 212 -8.8 +14.6 1.76 -0.01 0.900 -12.6 12.29 +0.07 300 4.30 1.39 -0.19 1.055 2192 -10.1 -1.3 1.80 +0.04 0.907 +12.6 12.27 +0.02 45.0 4.28 1.30 1.80 +0.04 0.907 +12.6 1.20	[[:53	8,19		1,077		-74.2		1.86		126.0		11.93			4.30	
7.58 -0.24 1.048 61% -8.8 + 14.6 1.76 -0.01 0.900 -1% 12.29 +0.07 300 4.30 7.39 -0.19 1.055 619 -10.1 -1.3 1.80 +0.04 0.901 +1% 12.29 +0.07 450 4.28 1.30 -0.24 1.040 -1.04 1.0401 +	11:56	7.82		1.054		-23.4		12.7		506.0	*	12.22	*	200	4.35	
7.34 -0.19 1.055 <192 -[0.1] - 1.3 1.80 +0.04 0.407 +12 1.27 -0.02 450 4.28 +/-0.2 SU +/-3% of Reading =/-20 mV** +/-0.2 mg/L** +/-10% of Reading +/-0.2°C NA	11:58	25.2	-0.24	1.048		-8.8			-0.0		1001-	12.29	40.07		4.30	
+/- 0.2 SU +/- 3% of Reading =/- 20 mV** +/- 0.2 mg/L** +/- 10% of Reading +/- 0.2°C	12:00	7.39	10.19	1.055		1.07-	-	1.80	40.04	-	$\overline{}$	1221	70.0-	450	4.28	1809
+/-0.2 SU +/-3% of Reading =/-20 mV** +/-0.2 mg/L** +/-10% of Reading +/-0.2°C										in and					}	
+/-0.2 SU +/-3% of Reading =/-20 mV** +/-0.2 mg/L** +/-10% of Reading +/-0.2°C																
+/- 0.2 SU +/- 3% of Reading =/- 20 mV** +/- 0.2 mg/L** +/- 10% of Reading +/- 0.2°C								¥.								
+/- 0.2 SU +/- 3% of Reading =/- 20 mV** +/- 0.2 mg/L** +/- 10% of Reading +/- 0.2°C									٠							
+/-0.2 SU +/-3% of Reading =/-20 mV** +/-0.2 mg/L** +/-10% of Reading +/-0.2°C																207
	Stabilization Criteria	0-/+	2 SU	+/-3%0	f Reading	=/- 20) m**	-+/- 0.2	mg/L**	+/- 10% o	of Reading)-/+	1.2°C	2	А	

EMUESAGED SPL OBSERVED ON THATM UPWN ROMOVAL * FIXED LEMIK, BURBUING SUBSIDION

^{*} Not to exceed 500 ml/min

^{**} Resolution accuracy of YSI 556



Site: Herr Foods, Inc., Nottingham, PA Date: $4 \left(\frac{1}{l} \right)$ 15

SUNNY 45° Weather:

MW-3 25 ft. Well Depth: Well No.:

5 to 25 ft.

Screened Interval:

Pump: 4-Stage SS Mega Monsoon With DC Controller

Field Personnel: Ed Dziedzic

Meter: YSI 556 Multiparameter With Flow Cell

4.59d purcey

Sample Time: 13:29 Depth To Water Before Pump Installation: $2.36 \, extbf{H}$ Pump Intake Depth: 2-inch Well Diameter:

								,			Sample inne				
	Hd	T	Conductivity	ctivity	ORP	۵.	OQ		TDS	S	Ten	Temp.	Pumping		
	(ns)	J)	(mS/cm)	cm)	(mV)	V	(mg/L)	(I)	(g/r)	(1	(0)	េច	Rate*	Depth To	
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water	
13:00	* -	NA		NA		NA		NA		NA		AN		2.85	
13:04	6.38		1.725		168.6		4.60		1.538		10.75		400	3.20	6.34
13:07	6.21		1.723		167.5		3.20	0	1,533		10,21		400	3.24	De
13:10	6.03		1.735		162.5		4.35		1.539		M.10		400	3.25	6.34
13:13	6.08		1.742		162.0		4.37		1.543		80.13		400	3.29	
13:15	6.07		1.741		163.9		4.18		1.539		81.11		400	3.34	
13:11	6.00		1.139		161.6		4.02		1.546		11.26		500	3.38 6.31	6.31
13:20	6.10		1.799		155.7		3.23		1.377		92-11		500	3.43	
13:23	617		1.8.1		150.3		2.79		1.592		11.33		500	3.48	
13:25	6.13	+0.01	1.842	+1.7%	14.2	1.9-	2.67	109.12 1.607	1.607	0%1+	W.36	40.03	306	3.48	
13:27	6.13	0	1.829 - 1%	-1%	141.2	-3.0	6502	-0.08	1.60%	4100	11.41 40.05	40.05	500	3.45	
Stabilization Criteria	0-/+	+/- 0.2 SU	+/-3% of	÷/-3% of Reading	=/-20	20 mV**	+/- 0.2 mg/L**	mg/L**	+/- 10% o	+/- 10% of Reading)-/+	+/- 0.2°C	Z	NA	

^{*} Not to exceed 500 ml/min

^{**} Resolution accuracy of YSI 556



We answer to you.

Site: Herr Foods, Inc., Nottingham, PA

Date: 7.9.15

7000 Weather: Cloudy

MW-2

23 ft. Well Diameter: Well Depth: Well No.:

2-inch

55 150

2 2

000

Time

570

523

Depth To Water Before Pump Installation: 🐧 🛴

Screened Interval:

10 ft.

Pump Intake Depth:

3 to 23 ft.

Pump: Peristaltic Pump Coして・PMONGを加みがあれたのできます。

Meter: Multiparameter With Flow Cell

Field Personnel: DONOYAN COMEN (STL)

Start Progas Oftes Sample Time:

Depth To ~00 ~1 Water Berg One Joseph 5 W. Pumping (mI/min) 200 Rate* 0 270 270 110 Change 000 200 0 3 Ϋ́ Temp. (°C) 900 Reading 000 7 100 12 1 Change 0000 2000 759 2000 0.001 0.00 Ž TDS (g/L) 10 250 Reading 153 1 1000 0.07 200 Change 0.05 Ϋ́ (mg/L) いすべ Reading ダス () 63.00 63.00 3 N Change 600 EVO 0 ΔZ i, v (m) ORP Reading 200 Q. 3 0 2 06. 20000 \$ 33 Change 0.63 2000 0.00 Ϋ́ Conductivity (mS/cm) 2000 Reading 2.22 726 265 263 36 Change 000 \$ \$ \$ -0.3 Ϋ́ PH (SU) Reading J.C. 203 608 Co Co Ç.

* Not to exceed 500 ml/min

** Resolution accuracy of YSI 556



total lunged 3.2 gal.

+/-0.2°C

+/- 10% of Reading

+/- 0.2 mg/L**

+/- 20 mV**

+/-3% of Reading

+/- 0.2 SU

Stabilization Criteria



We answer to you.

Site: Herr Foods, Inc., Nottingham, PA

Date: 7-4-15

Weather: ペープ

MW-1 27 ft. Well Depth: Well No.:

7 to 27 ft.

Pump: Peristaltic Pump Cole Parmer Martortler E/S

Meter: Multiparameter With Flow Cell YSE 55

Field Personnel: Dovous Correll (STL)

Screened Interval:

Parvive Start 1045 Sample Time: 1132 Depth To Water Before Pump Installation: 7,85 10 ft. Pump Intake Depth:

Well Diameter:		2-inch				Pump Intake Depth:	ce Depth:		10 ft.		Sample Time:	حمقة عند في ترق	N	
	1	1	Condu	Conductivity	Ö	ORP	ă	00	SQT	SC	Temp.	6	Pumping	
	(ns)	: S	(mS	(mS/cm)	E	(mV)	(mg/L)	(1/)	(a/r)	(1)	(5,)	(c)	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
050	5.60	ΝΑ	0.158	NA	9.0	NA	23.05	ΑN	6.173	NA	16.15	NA	268	25
1001	18	500	0.155	2,003	525	S. C.	10 22	700	221.0	0.001	1587	0.25	\$ 92	3.10
-	5.97	2.45	53.0	Č.Š	122 030	5	22.97	E210 400	6123	6.001	6.001 15.72	0.17	00 10 10	500 500
	2.80		0.155	D. 060	11/20	Property of the second	22.10	2210 230	6.123	0000	0-000 15.36	034	268	5.0 Geo
50	5	000	0.50	0.00(120	5.0	7.07	22.14 0.04 0.124	0.124	100.0	96.51	0,00	268	3.18
Cr.	2 %2	100	151.0	1000	\$0 To	4	13. CS.	000	5 21 0) DD G	15.36	000	265	5.18
7. C. 4.														
Stabilization		+/- 0.2 SU	+/-3%c	+/- 3% of Reading	+/- 50	+/- 20 mV**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% c	+/- 10% of Reading) -/+	+/- 0.2°C	2	NA

^{*} Not to exceed 500 ml/min



Total Purged 3.7 gal.

^{**} Resolution accuracy of YSI 556



We answer to you.

Site: Herr Foods, Inc., Nottingham, PA

Date: 7-9-15

Weather: Swany

MW-8 20 ft. Well Depth: Well No.:

2-inch

Depth To Water Before Pump Installation: 🚣 🔭

Screened Interval:

3 to 20 ft.

Pump: Peristaltic Pump Cole - Paymen Master+Tles ETS

Meter: Multiparameter With Flow Cell

Field Personnel: Donovan Correll (STL)

Dury 5 tert - 1145 Sample Time: | 🙎 🕽 10 ft. Pump Intake Depth:

Well Diameter:		2-inch				Pump Intake Depth:	ce Depth:		10 ft.	į	Sample Time: 1222	e: 122	g-,4	
	<u> </u>	Ha	Condu	Conductivity	ō	ORP	20	0	TDS	S	Temp.	лр.	Pumping	
	. (ns)	5	(mS/cm	(m)	(mV)	- (a)	(mg/r)	:/1)	(B/L)	(1)	(°C)	0	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
Qi M		NA	0.000	NA	200	NA	77.5	ΑN	4516	NA	16.97	NA	1000	2.06
20		55	0200	0.000	2201	S.	***	6316 231	23.0	0.000	2000	0.00	163	313
			000000000000000000000000000000000000000	8	T S	V-	6000	£ 30 250	2.30	17. W.	16.99	0,04	263	3.18
	i i	200	F 20 S	5000	7. 2.7 0	0	74	25.0 59.0	25	76-21 2000	25.21	0.02	500 m	3.16
(1)	7	300	300	2 8 2		1	2004	, manual	2510	1671 1000	16.21	0.05	ミラン	4
220	3.t	000	0.200	0.81	500	in the	13.42	1200	D. 154 0.001		16.81	6.10	263	3.6
	-													
									:					
•														
									į					
Stabilization Criteria)-/+	+/- 0.2 SU	+/-3%0	+/- 3% of Reading	+/- 20	+/- 20 mV**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% c	+/- 10% of Reading	}-/+	+/- 0.2°C	2	NA

* Not to exceed 500 ml/min

** Resolution accuracy of multiparameter meter



total Purguel 2.5 gal

5072359 Deborah Hannum



We answer to you.

Site: Herr Foods, Inc., Nottingham, PA

Date: 7-4-15

Weather: Cloudy

MW-10 20 ft. Well Depth: Well No.:

2-inch

Depth To Water Before Pump Installation: 🕉 🍼 Pump Intake Depth: 🚿

10 ft.

Pump: Peristaltic Pump Cols - Parner Master Plax E/8

Meter: Multiparameter With Flow Cell くらま 多らら

3 to 20 ft.

Screened Interval:

Field Personnel: Dirocan Carrell (STL)

01. 21 - Father 2 - 2 10 Sample Time: 13 12 Depth To

Water

7. 4 5 10 P

3

- 11				2006	1,00-2	, ,				<u> </u>	+
7	Pumping	Rate*	(ml/min)	(V	285	282	582	522			
	υþ.		Change	NA	350	050	0.30	200			
Sample Time: 15 14	Temp.	(°C)	Reading	1952	500	2000	5	17.8			
	Si	η,	Change	NA	7100	0,00	763 5000	2000			
10 ft.	SOT	(a/r)	Reading Change	1.039	50	N 50	6.70	8501			
		(1/	Reading Change	NA	285 846 40.01 4100 250 1 18.0	050 59.81 1000 2501 250 250	5.000	100 128 200 250 1200	,		
Pump Intake Depth: 🤌	26	(mg/L)	Reading	1	ì	1	The same of the sa		-		
Pump Intak	ORP	(mV)	Change		J	- 53-2		(******	,		
	0	<u>.</u>	Reading		C		0	9 32. 1621			
	Conductivity	(cm)	Change		2000			_			
	Condi	(ms/sm)	Reading	,		- 'e,	العد	300			
2-inch		(1)	Change		0	600	0000		3		
tor.		2 <u>(</u>	Reading	0 2 3		1	100				
Moll Diameter			Time	1240		5000	2000	1000			

Total Parged 24 gal

¥Ζ

+/- 0.2°C

+/~ 10% of Reading

+/- 0.2 mg/L**

+/- 20 mV**

+/- 3% of Reading

+/- 0.2 SU

Stabilization Criteria

** Resolution accuracy of multiparameter meter * Not to exceed 500 ml/min



5072359 Deborah Hannum



Site: Herr Foods, Inc., Nottingham, PA We answer to you.

Date: 7-16-15

Weather: グススタン

Well No.:

MW-6 Well Depth:

20 ft.

Depth To Water Before Pump Installation:

Pump: Peristaltic Pump Cole - Paramer Micheller Els

Meter: Multiparameter With Flow Cell 45255

3 to 20 ft.

Screened Interval:

Field Personnel: Danovan Courall (STL)

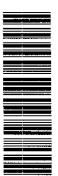
start Ange: 0000 *5*

		0
	Pumaine	Rate*
Sample Time: 0938	Temp	֝֞֞֞֞֓֓֞֞֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓
10 ft.	TDS	(6/1)
ce Depth:	OQ	(mg/L)
Pump Intake Depth:	ORP	(m/)
	Conductivity	(mS/cm)
2-inch	Hd	(ns)
Well Diameter:		

<u>1</u>	· _									1	1
Depth To	Water	086	13	100	1 2 mg						
Pumping Rate*	(ml/min)	22.5	, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,	25	7.60					6	
ġ	Change	AN	210	T	30.0						
Temp.	Reading	30 %	2000	4.07	000						
- - ∽	Change	 	2000	2000	4						
TDS (8/L)	Reading	0,25	I	2020	203						
, (T	Change		1.23	Г	0.07 5	i			E		
DO (mg/L)	Reading	4.00	28.7	287	7.73						
e S	Change	NA	25	2.3	<i>(</i>)						
ORP (mV)	Reading	50	54.9	57.6	073						
ctivity cm}	Change		8000	0.00%	0.007						
Conductivity (mS/cm)	Reading	5620	2,620	5870	6620						
# fr	Change	NA	0.53	200	0.01	-					
hd (SU)	Reading	633	2.2		Т						
	Time		00.50	0930	25 250		·				

* Not to exceed 500 ml/min

** Resolution accuracy of multiparameter meter



5072398 Deborah Hannum



Site: Herr Foods, Inc., Nottingham, PA

Date: 7-10-15

Pump: Peristaltic Pump Colar Burney Markenflex E/5

Meter: Multiparameter With Flow Cell · くっこ

3 to 20 ft.

Screened Interval:

Field Personnel: Ogravan, Come // (572)

Weather: ライカスシ

MW-9 20 ft. Well Diameter: Well Depth: Well No.:

2-inch

Depth To Water Before Pump Installation: 2 .←0

Pump Intake Depth:

10 ft.

Purga Started: 0815 Sample Time: 🐠🛂

	Hd		Conductivi	Conductivity	ORP	d≵	00	0	¥ 	ZOT	Temp.	np.	Pumping	į
i	(SU)	≘	(mS/cm)	(cm)	(m/V)	(2)	(mg/L)	(1/)	(g)	(g/L)	(C)		Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
0420	635	NA	1.50	NA	447	NA	392	NA	1.246	NA	155	NA	340	30,0
0825	6.08	0.27	1.575	0.005	-336	1 7 P	2.27	1.65	3521	0000	15 00	150	036	3.10
0830	900	6.00	209	5700	777-	27	1-53	35.0	242.1	2500 842	なか	250	335	Said and safe
5 2 2 2 3	265	200	5297	22.00	241-	20	37.	6.17	881	2950		0.00	01N	97.6
0480	3.41	0.0	163-1	210.0	811	3. Y	697	800	1.572	7100	14.59	0.0	20	J. 1.
											:			
			;											
			:											
				-										
Stabilization Criteria	+/- 0	+/- 0.2 SU	+/- 3% 01	+/- 3% of Reading	+/- 20	+/- 20 mV**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% c	+/- 10% of Reading	0 -/+	+/- 0.2°C	NA	A

^{*} Not to exceed 500 ml/min



5072398 Deborah Hannum

^{**} Resolution accuracy of multiparameter meter



We answer to you.

Site: Herr Foods, Inc., Nottingham, PA Date: 7-10-15

7000 Weather: ティスタン

MW-4 19 ft. Well Depth: Well No.:

2-inch Well Diameter:

Depth To Water Before Pump Installation: 낙 孝

Pump: Peristaltic Pump Cola . Perona and Martie Flag Els

Field Personnel: Paramona (GTL)

Pump Intake Depth:

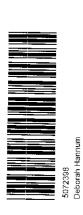
0 to 19 ft.

Screened Interval:

Purgo Storted - 1220 Sample Time: パンャタ

	<u>a</u>	Hd	Condr	Conductivity	ORP	ď	8	0	TDS	SC	Temb.	JD.	Pumping	
i	S)	SI	(mS,	_	(mV)	۷)	(mg/L)	(1/;	(B/r)		(2)		Rate*	Depth To
Time		Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
500	100	NA		NA	1453	NA	\$ 75	l	9.874		S	NA		1
030	6.58	220 122		0.032	1370	3	25.5		1240	0.017 1875	No.	0	1300	
1240	3	500	50	0,000	Section of the sectio	2.9	Bla 1	0	,	1	1	000		- 7 m
5,52	95.3 572	20.0	1	,	5/0n1		7	000		1 20 %			\top	
														i i
						_								
Stabilization	+/- 0.2 SU	.2 SU	+/- 3% of Reading	Reading	**/\m UC -/+	**/\#	**!/>~ CO-/+	**// 5%		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		()		
Criteria	•	-		0		-	11.5 - /-	- 1/2	J 8/21 -/+	Keadille	1./-/+	<u>-</u>		

^{*} Not to exceed 500 ml/min



total Purgalize gal.

^{**} Resolution accuracy of YSI 556



Site: Herr Foods, Inc., Nottingham, PA

Date: 7-10-15

Weather: Synay 30 F

MW-5 27 ft. Well Depth: Well No.:

2-inch

Pary stated 0950 Sample Time: 1022 Depth To Water Before Pump Installation: 3.597 to 27 ft. Pump Intake Depth: Screened Interval:

Pump: Peristaltic Pump Cola - Parado Marton Flora E15

Meter: Multiparameter With Flow Cell ドラゴ タブル

Field Personnel: Bon was Cove ((5TL)

Well Diameter:		2-inch				Pump Intake Depth:	ke Depth:		10 ft.		Sample Time: 1022	ie: 1027		
	ō.	Hd	Condu	Conductivity	Ö	ORP	8	0	SOT	St	Temp.	ng.	Pumping	
	S)	(su)	(mS,	(mS/cm)	(mV)	(\n\	m)	(mg/L)	(g/L)	(1)	(ac)	c)	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
0955	5 70	NA	2251	NA	5.99	NA	123	NA	139	NA	6200	NA	228	Se 'S
5001	16 m	2.44	\$ 50° C	8,000	7.0	初至机	2.53	69 Z	1291	0.000	53 W	8.54	726	10 % S
9	£2-4	2.04	7.227	010-0	301	50	587	2	119-1	5.010	1300	200	222	126
50	52-h	0.02	2208	0.019	8.60	5.0	662	01.0	10651	0.012 19.56	253	6.08	276	255
1020	4.73	5.52	2.199	1000 CON	5011	63	3.09	21-8	210-0 1851	2.0.0	653	500	226	へら、あ
							•							
Stabilization	0-/+	+/- 0.2 SU	+/-3%0	+/- 3% of Reading	+/- 20	+/- 20 mV**	+/-0.2	+/- 0.2 mg/L**	+/- 10% of Reading	f Reading)-/+	+/- 0.2°C	VN .	A

^{*} Not to exceed 500 ml/min

^{**} Resolution accuracy of multiparameter meter



Total Paragod: 2.7 gal.

5072398 Deborah Hannum



Site: Herr Foods, Inc., Nottingham, PA

Date: 7-10-15

Pump: Peristaltic Pump Lolz - Parmer Master Flex Els

Meter: Multiparameter With Flow Cell Y57 5%

3 to 20 ft.

Field Personnel: General Correll (STL)

100 CM Weather: Sugaray

MW-7 Well No.:

20 ft. Well Depth:

Depth To Water Before Pump Installation: 4.45 Screened Interval:

start Parge 1035 Sample Time: 🔢 💮 Pump Intake Depth: 2-inch Well Diameter:

	0	Hd	Conductivity	ctivity	ORP	ڃ	۵	DO	TDS	Sc	Ten	Temp.	Pumping	
	(S	n)	(mS/cm)	(cm)	(mV)	۸)	(mg/L)	(1/s	(g/L)	(1)	(p_)	()	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
1040	253	NA	5263	NA	58.5	NA	356	NA	47.00		See 2 2	NA	218	4.95
1050	5.08	6.24	2.83	0.035	649	3.4	0.88	1.63	2100 2850	0.017	864	22	218	35 J
100	2 3	800	6-463	0.035	7.25	6.3	53.0	820	5.376	0.006 17.25	522	0,73	de En	Sa √
501	02.3	7000	8250	0.005	7:55 50	2	19.0	1.00	hal EV	5021 7000	_	22.0	3/2	12.2
0	223	0	5840	6,863	ر ارد ارد	30	<i>in in</i>	500	77.5	2002 2003	00	0.03	Ser.	57.5
						l								
												_		
Stabilization Criteria	0 -/+	+/- 0.2 SU	+/- 3% of Readir	Reading	+/-20	+/- 20 mV**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% o	+/- 10% of Reading	7-/+	+/-0.2°C	NA	

^{*} Not to exceed 500 ml/min



Total Purged: 3.1 gal.

5072398 Deborah Hannum

H:\Projects\10172\101722001\GS\Site Characterization\Low-riow vala sneed xlsx

^{**} Resolution accuracy of multiparameter meter



Pump: Peristaltic Pump Cole - Parama can Marked Floor Floor

Meter: Multiparameter With Flow Cell 🛙 🛠 🕏 🕏

5 to 25 ft.

Screened Interval:

Field Personnel: Dono can Conney / (STL)

Site: Herr Foods, Inc., Nottingham, PA

20.56 Date: 7:10-15

Weather: Sanny

MW-3 25 ft. Well Depth: Well No.:

2-inch

Depth To Water Before Pump Installation: $\vec{Z}.\mathcal{E}$

Sample Time: 1000

That Parge : 1125

Pump Intake Depth: Well Diameter:

lng .	* Depth To	in) Water	200	7.93	265	136 6	1660				
Pumping	Rate*	(ml/min)	350	50	350	61 50 50	050				
Temp.	(°C)	Change	NA	2.00	200	200	10.05				
Ie1	,)	Reading	2881	5271 2600	1821 181	5623	50.0-5221				
TDS	(g/L)	Change	ΥN	0160	10001	120:0	2000				
Ц	(g	Reading	571-1	64.27	0897	120-0 619-1 920	0.00 1.675				
DO	(/L)	Change	NA	5.42	0.70	220	0.00				
٥	(mg/L)	Reading	098	1000		1.72	2.2.				
ORP	(mV)	Change	ΑN	1,3	0	Strike um 2 Strikery	4.2				
Ю	m)	Reading	100	7781-200	0.009 -189.450	5.881- 510.0	5261- 0000				
Conductivity	(cm)	Change	NA		0.004	5.0.0	0.00				
Condu	(mS/cm	Reading	3.364	2222	1.13	2218	200				
Hd	(n	Change	NA	029	F) '0	200	600				
ā	(ns)	Reading	29.5	\$ \text{\$\varphi\$}	00,00	209	6.10				
		Time	201	0-11	2	500	1200				



total Pungalizy

ž

+/- 0.2°C

+/- 10% of Reading

+/- 0.2 mg/L**

+/- 20 mV**

+/- 3% of Reading

+/- 0.2 SU

5072398 Deborah Hannum

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^{*} Not to exceed 500 ml/min

^{**} Resolution accuracy of YSI 556

We answer to you.

Site: Herr Foods, Inc., Nottingham, PA

Date: (\$1615

3055 Weather: 🚣 🗥

MW-1 Well No.:

Well Diameter:

2-inch

27 ft.

Well Depth:

Depth To Water Before Pump Installation: 4, 79

Pump Intake Depth:

7 to 27 ft.

Screened Interval:

Pump: Peristaltic Pump Color - Permon Mosferflex E/S Meter: Multiparameter With Flow Cell ヤグナ ららし M PS

Field Personnel: Danguan Corroll (571)

Sample Time: 10 2 Z

Depth To Water

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3

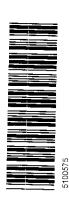
5.33 د. در در

Purga Started: 0955 Purga Ended: 1022

] gu	Ē		<i>₩</i>	824	80	500	-				-	-		₹
Pumping Rate*	(ml/min)	378	376	376	376	376								
Temp.	Change	ΑΝ	0.0	94.0	21.0	5-7								+/-0.2°C
Ter	Reading	52.21	17.09	637	16.51	, v.								0-/+
TDS (g/L)	Change	NA	0.011 17.09	£371 £00°0	0.0	0.001								+/- 10% of Reading
TI (g)	Reading	0.129	0.118	0.115	0.05	0.11%								+/- 10% o
0 (1/	Change	NA A	0.1	201-0115	0.03 0.115	10.0								ng/L**
DO (mg/L)	Reading	295	5.52	155	248	1.6-5	-							+/- 0.2 mg/L**
£ \$	Change	NA	16.9	2	0.8	2.2				·				#*/w
ORP (mV)	Reading	60,2	97.0	1.22.1	1.01.3									+/- 20 mV**
ctivity 'cm)	Change	NA	54. 0.02	6.005	0.63	0.00								- 3% of Reading
Conductivity (mS/cm)	Reading	0 174	0-154.	0119	0-148	0-147								÷/-3% of
н Ј)	Change	NA	0.24	0.06	6.03	30.0								2 SU
Hd (SU)	Reading	7.07	5.83	53	5.50	36.2		į	12	·				+/- 0.2 SU
	Time	1600	1005	0101	50	020								Stabilization Criteria

^{**} Resolution accuracy of YSI 556 * Not to exceed 500 ml/min

Deborah Hannum 5100575



2.5 gals purged

We answer to you.

Site: Herr Foods, Inc., Nottingham, PA

Date: 10/1/115

MW-2 Weather: อันนุกฎ Well No.:

23 ft. Well Diameter: Well Depth:

2-inch

Depth To Water Before Pump Installation: $\int_{\mathbb{R}} \vec{\mathcal{L}} \, \mathcal{Z}$

3 to 23 ft.

Pump: Peristaltic Pump Cole Pernen Muster Flex E/5

Field Personnel: Donavau Gonse (1 (STL)

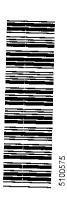
Punga Stanbol: 0015 Ruga Endad:

Meter: Multiparameter With Flow Cell 1957-996Screened Interval:

Well Diameter:		2-inch				Pump Intake Depth:	ke Depth:		10 ft.		Sample Tir	Sample Time: 0847	5		
	Hd	I	Condu	Conductivity	ŏ	ORP	٥	00	11	TDS	Ţ.	Temp.	Pumping		
1	is)	5	(mS/cm)	/cm)	ا	(mV)	<u>ű</u>	(mg/r)	(B/r)	(7)	*_	(°)	Rate*	Depth To	
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water	
0260	6.38	NA	1243	NA	145.0	NA	H77	ΝA	666	NA	5572	ΑΝ	375	02 3	
0925	6 4 3	0.15	2 452	0.021	134.1	601	59-1	65.0	1.672	2002	22.55	0	50 Km	5/3	
09 30	6.20	0.27	2432	1.020	0.821	15	200	7.70			72.24	0.31	27.8	0 200	
0935	21.3	0.08	2418	9.014	130.1	Property The Control	1.17	-30 0	2337		21.017	6.27	375	6,49	
2460	6.10	0.02	204.2	2100	128.4	Page 1	1-12	0.05	1.662	0.000	23.30	600	27.5	2	
												0.00			
						t.									
Stabilization Criteria	+/- 0.2 SU	2 SU	-/÷	+/- 3% of Reading	*/- 20 mV**	w/**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% of Reading	Reading	7-/+	+/- 0.2°C	ΔN		

* Not to exceed 500 ml/min

** Resolution accuracy of YSI 556



2.5 gals purged

Deborah Hannum

We answer to you.

Site: Herr Foods, Inc., Nottingham, PA

Date: (0/7/15

11. 1. Weather: 🤇 🖒 ಸಂಗಿಳ

25 ft. Well Depth:

MW-3

Well No.:

Well Diameter:

2-inch

Screened interval:

Pump Intake Depth:

5 to 25 ft.

Pump: Peristaltic Pump $\mathcal{L}_{\mathcal{C}}(\mathcal{L}_{\mathcal{C}}, \mathcal{L}_{\mathcal{C}}, \mathcal{L}_{\mathcal{$

Field Personnel: Paraisa Comp. ((571)

Depth To Water Before Pump Installation: 💃 🧷 🤟

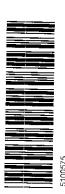
Prince from a Contra

Sample Time: 1018

												A 18 0		
	Ω.	Hd	Condu	Conductivity	õ	ORP	00	0	1	TDS	Temp.	Ġ.	Pumping	
	S)	(sn)	(mS	(mS/cm)	(mV)	IV)	(mg/r)	/L)	(g/r)	(T)	(၃)	0	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
0955	25.	NA	202	NA	- 1005	NA	2.10	NA	Bit	NA	7712	NA	3000	0 64 64
000	5	0.16	7 8 %	000	179.7	20.8	101	0.47	5 22 2	8.013	20.58	20-1	1	100
(00)	6.62	001	2007	0.000		1 6	3 04	0.12	1.425	0	54.07	6.03	Section Sectio	
0	50.0	0	2005	3.00.6		0.4	320	0.01	3 47 5	C ^p	75 E	9,01	50	60
0	6.63	0	2006	0.00	1318	0.4	5.21	0.01	825	0.003	15.00	0.03	278	10
														b.
													ì	
tabilization Criteria	0 -/+	+/- 0.2 SU	+/-3%0	+/- 3% of Reading	+/- 20 mV**	mV**	+/- 0.2 mg/L**	ng/L**	+/- 10% o	+/- 10% of Reading	+/- 0.2°C	,2°C	NA	

^{**} Resolution accuracy of YSI 556 * Not to exceed 500 ml/min

Deborah Hannum



2.7 gals Purged



We answer to you.

Site: Herr Foods, Inc., Nottingham, PA

Date: 10 7115

12 Weather: タッパハソ

MW-4 19 ft. Well Depth: Well No.:

0 to 19 ft.

Screened Interval:

Pump: Peristaltic Pump Cole Persons Master Place Place

Field Personnel: Odnorum Concli (57L)

Meter: Multiparameter With Flow Cell アダ 多多 かん

Depth To Water Before Pump Installation: 6.16 10 ft.

Pungo End : 112

Well Diameter:	eter:	2-inch				Pump Intake Depth:	ce Depth:		10 ft.) 	Sample Time: 🗮 🔀	e: :::::	:	1
	<u>a</u>	Hd	Condu	Conductivity	ORP	Ч	a	00	Ш	TDS	Temp	ηþ.	Pumping	
	S	(SU)	(mS/cm)	/cm)	(mV)	V)	(mg/r)	;/L)	(a/r)	/r)	(°C)	G	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	13	NA	1.00%	NA	2377	NA	455	NA	11/2	NA	20.50	NA	365	W 23
050	6.57	5.02	1.005	2001	28%	6.0	46	6.5	HIL 0	0	200	200	5.66	30
053	T	60	1.007	6.002	5001-	23	Same Boll Co	0.04	4120	Ö	20.61	0.05	535	424
0338	6-1 6-5 5-5	0.62	1.007	0	A. 84 1-		3.33	0.38	0.75	1006	20.65	5.04	355	F2-9
100m	6.30		8	5.00	0141	1.8	25.4	0.64	116 0	\$ 00.0	2502	5.67	535	623
See of the see of the	500	5.81	1 912	6 60 ;	274	C. 3	£5°4	100	1110	1900	3507	200	200	12.0
Stabilization Criteria	0-/+	+/- 0.2 SU	+/- 3% of	+/- 3% of Reading	+/- 20	+/- 20 mV**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% c	+/- 10% of Reading	0-/+	+/-0.2°C	Z	NA

^{**} Resolution accuracy of YSI 556 * Not to exceed 500 ml/min



3.3 gals. Purged

Site: Herr Foods, Inc., Nottingham, PA We answer to you.

15 Com MW-5

Weather: Clandy Date: 10 | 71 | 5

LOW-FLOW PURGUING AND SAMPLING **DATA SHEET**

Field Personnel: Downs Gurett (571)

Pump: Peristaltic Pump Cols Parmer Macher Flag Els

Meter: Multiparameter With Flow Cell イダ らららいから

Screened Interval:

Depth To Water Before Pump Installation: 약 약속 7 to 27 ft.

2-inch 27 ft.

Well Diameter: Well Depth: Well No.:

Paraya Started: 088 Parige Brated: Off

Well Diameter:	eter:	2-inch				Pump Intake Depth:	e Depth:		10 ft.		Sample Time: りょうぎ	ne: 0878	i ser.	
	6.	Hd	Condu	Conductivity	ORP	d.	OQ	0	J1.	TDS	Ter	Temp.	Pumping	
	S)	(SU)	(mS,	(mS/cm)	(mV)	5	(mg/L)	(1/)	(g/r)	' L)	(°C)	O	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
0815	7.45	NA	9.86	NA	482	NA	15.7	NA	9496	NA	22.86	NA	00 h	52
6820	7.80	6.15	1.433	6.087	1. A. A. A	1.3	211	9.0	9666	0.00	6522	610	pat	5.25
0925	7.67	0.13	S 2 M =	21.00	5-25-	52		250	9 00 k	5100	5526		994	0. W
08.39	7.52	500	数でなり	2000	250	50 O	Service Services	200	200	2.00.5	13.30	0.00	000	\$\ \$\ \$\
2636	202	500	554	h [2] 4	1 de 1 de 1 de 1 de 1 de 1 de 1 de 1 de	- 3° - 1	1 ()	0.00	1,697	0.000	5.00	3	2007	5.55
								:						
					,									

* Not to exceed 500 ml/min

** Resolution accuracy of multiparameter meter



2.9 gals Parya

+/- 0.2°C

+/- 10% of Reading

+/- 0.2 mg/L**

+/- 20 mV**

+/- 3% of Reading

+/- 0.2 SU

Stabilization

We answer to you.

Site: Herr Foods, Inc., Nottingham, PA

Date: 10/6/15

3001 Weather: Sunay

9-WM Well No.:

2-inch 20 ft. Well Depth:

Screened Interval:

3 to 20 ft.

Pump: Peristaltic Pump Cole Parmer Marker Flex Els Meter: Multiparameter With Flow Cell 75% 556 MPS

Field Personnel: Jonation Council (STL)

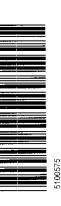
Proge Starts 1240 Prompe End: 1308

Depth To Water Before Pump Installation: \vec{S} $\vec{\gamma}$ Pump Intake Depth:

								.					,	
Well Diameter:	i	2-inch				Pump Intake Depth:	ke Depth:		10 ft.		Sample Time:	<i>હે છે ટ</i> ા ઝ	Q.	
	<u>a.</u>	핊	Conductivity	ıctivity	Q	ORP		8	=	TDS	Ten	Temp.	Pumping	
	S)	(sn)	(mS	(mS/cm)	(mV)	۱۸)	(m)	(mg/L)	8)	(g/t)	(၁)	C	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(mf/min)	Water
1245	7.05	NA	0.446	NA	5.25	NA	6.57	NA	0.133	NA	21.92	NA	00 h	345
(250	28.9	0.19	2210	5100	639	83	04.9	0.17	1210	0.009	21.58	460	ooh	3,52
5521	7.3	0.03	6-177	Q	4.69	1	267	80.0	2210	200.0	21.82	420	004	75%
1300	527	90.0	221.0	0	5.21		6.62	0.30	6-123	0,001	21.54	\$2.0	00h	25
5081	12.2)00	2710	0	82	20	7.59	80.0	500	2000	Sh. 72	20.0	004	3.56
											-	-		
														
Stabilization Criteria		+/- 0.2 SU	+/-3%0	+/- 3% of Reading	+/- 20	+/- 20 mV**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% (+/- 10% of Reading	J-/+	+/- 0.2°C	NA	A

* Not to exceed 500 ml/min

** Resolution accuracy of multiparameter meter



2.5 gals pumged

We answer to you.

Site: Herr Foods, Inc., Nottingham, PA

100 m Weather: [[{andy Date: 16 715

MW-7 20 ft. Well Depth: Well No.:

3 to 20 ft.

Screened Interval:

Pump: Peristaltic Pump Cole Roman Marker Flys Els

Field Personnel: Donovan Correll (STV)

Meter: Multiparameter With Flow Cell ドケヂ らかと かんが

Depth To Water Before Pump Installation: 🥻 🖰

Part Rail ON 12

Sample Time: 🎢 🕽 🚣

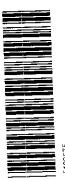
2-inch Well Diameter:

Pump Intake Depth:

											,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
	<u>a</u>	I	Conductivity	ctivity	ORP	٠	00	0	<u> </u>	TDS	Temp.	Ę.	Pumping	
	S)	(sn)	(mS,	(mS/cm)	(mV)	۸)	(mg/r)	(1/1)	(8/۲)	(1)	(C)	(C)	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
000	% %	NA	0.358	NA	3.	NA	2.72	NA	0.226	NA	100	NA	\$100 \$100 \$1000	726
0016	5.53	0.33	0,305	0.003	64 3	16.8	2.16	0.16	0.234	2000	5 6-31	11 0	275	7.25
03:00	6.7	1.87	8.29 8	0.007	. 575	10.9	9E 7	0.14	0.22	2000	12.59	920	375	7.25
0 1	6.91	0.10	0.280	810.0	8	21.7	1 2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	Ø.01	0.222	1000	153	0.18	546	1
0620	6.99	0.08	0.08 0.300	020.0	F, "A-	2.6	7.20	6.02	1220	1000	1.3	40.0	in the	25
5250	\$1.30 \$1.50	11:0	3420	100.0	1	-	322	0.03	6773	2000	552	500		202
0660	675	6.03	0.30	2000	041	26	2.22	500	4220	0.001	175	8.03	100 m	14.5
														İ
Stabilization Criteria	0-/+	+/- 0.2 SU	+/-3%0	+/- 3% of Reading	+/- 20	+/- 20 mV**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% c	+/- 10% of Reading	0-/+	+/- 0.2°C	NA.	A .

* Not to exceed 500 ml/min

** Resolution accuracy of multiparameter meter



J. 66 gals. Purged

Deborah Hannum 5100575

Marketon (K. Kr.) Liking (M. Kr.) Kr. Liking (M. Kr.)

LOW-FLOW PURGUING AND SAMPLING **DATA SHEET**

We answer to you.

Site: Herr Foods, Inc., Nottingham, PA

5000 Weather: ちゅんカツ Date: (0-6-15

Ø#-MW Well No.:

Well Depth: 건가는 25ft. Well Diameter:

2-inch

Screened Interval: 3-2044 5-to-25-ft.

Pump: Peristaltic Pump 6/2 garass Masterflex E/5

Field Personnel: Donovan Govall (STE)

Meter: Multiparameter With Flow Cell マタス らる M.P.s

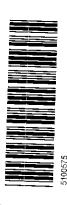
Depth To Water Before Pump Installation: 3.84

Purge Started: 1855 Ange Ended: 1102

Sample Time: 1102

Vell Diameter:		2-inch				Pump Intal	Pump Intake Depth: (0 84	10.51	1. 1. ft.		Sample Time: 1102	ie: 1102		
	Hq (US)	# 5	Conductivit	onductivity (mS/cm)	io	ORP (mV)	ο ω <i>γ</i>	DO (mg/1)	SOT (1/a)	TDS	Temp	Temp.	Pumping Pato*	Dooth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
1040	16.9	NA	0.209	NA	620	NA	2.5	ΑN	0.151	NA	92-61	NA	108	7.00
5601	1045 6.65	62.0	6.212	0.003) "001	3.7	4-38	70	653	2000	500	0:07	- 0 -	2
1050	6-57	Ü . III	0211	0.001	2.001	5.0	4.15	62.0	613	0.0	19.55	h/ W	104	1
1055	£.5 4	0.03	0.211	0	99 8	0.8	7.89	67.0	6.154	0.001	19.36	0.19	101	077
1180	6.48	0.06	6.209	0.00	68.0	10°0	28.8	6.03	6.183	0.00	74	0, (5		4.24
									!					
t abili zation Criteria	+/- 0.2 SU	.2 SU	+/- 3% of Rea	fReading	+/- 20	+/- 20 mV**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% o	+/- 10% of Reading	0-/+	+/- 0.2°C	NA	

^{*} Not to exceed 500 ml/min



Deborah Hannum

^{**} Resolution accuracy of YSI 556

We answer to you.

Site: Herr Foods, Inc., Nottingham, PA

Date: 10/6/15

Weather: See a my

6-WM Well No.:

20 ft. Well Diameter: Well Depth:

2-inch

3 to 20 ft. Screened Interval:

Pump: Peristaltic Pump Fole Paramen Master Flex E/5

Meter: Multiparameter With Flow Cell ヤミチーシンド

Field Personnel: Canada Canada (1 (STL)

密めら

Depth To Water Before Pump Installation: 4.16

10 ft.

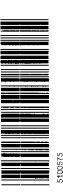
Pump Intake Depth:

Rings End 1228 Sample Time: 1723

	ō.	I	Condu	Conductivity	Ö	ORP	00	0	11	TDS	Ter	Temp.	Pumping	
	(ns)	(n	(mS/cm)	/cm)	(mV)	'V)	(mg/L)	(1/)	(1/8)	(ı)	<u>(၃</u>	· 10	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
1200	6.82	NA	1.932	NA	0.0	۷N	557	NA	6651	ΝA	553	NA	400.	4,52
いらら	4	0.01	1.923	009	2-1	81	197	0.03	1557	0.003	40281	かえび	100	とい
1210	6.0 C	0.17	2.097	0.11	19.9	£1	64	0.18	.530	0,109	1 3 3 3 5 E	0.88	400	4.30
1215	54.9	0.19	2.107	0.074	576	17.7	1.32	0.11	1.612	2 90 0	027)	0.18	00%	4.84
1220	03.3	0.05	2,65	5.058	6.96	为为	767		6997	0.05(17.00	0.20	00%	7. 8%
12.25	6-39	0.01	7.184	610-0	26	0.0	32	207	177.1	0.014	16.9.7	0.03	400	4.97
İ														
							o de la companya de l							
				1										
Stabilization Criteria	+/- 0.2 SU	.2 SU	+/- 3% of	+/- 3% of Reading	+/- 20 mV**	mV**	+/- 0.2 mg/L**	ng/L**	+/- 10% 0	+/- 10% of Reading	0-/+	+/-0.2°C	NA	A

* Not to exceed 500 ml/min

** Resolution accuracy of multiparameter meter



Deborah Hannum 5100575

We answer to you.

Site: Herr Foods, Inc., Nottingham, PA

Date: 10/6/15

Pump: Peristaltic Pump Cole Parman Morster Flex E/5

Field Personnel: Personn Correll (STL)

Screened Interval: 3 ~ 20 € + 0 to 19 €.

11.1.9 Weather: Sanny

01 ∯-MW

Well No.:

19-€ Well Depth: 20 ₽4 Well Diameter:

2-inch

Depth To Water Before Pump Installation: 🤾 🖇 😿 Pump Intake Depth:

Ange Stort. 1115

2511 : Just about

Sample Time: 1147

						and a mark action.			±0 1t.		Sample Illie.	ie. i i i 4.		
	<u>a</u>	Hd	Condu	Conductivity	ŏ 	ORP	8	0	1	TDS	Temp.	ď.	Pumping	
	S	S	(mS/cm)	/cm)	(mV)	(A)	(mg/t)	(1/:	<u>ئۆ</u> 	(g/r)	ີ (ວູ.)	. 0	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
1120	6.76	NA	1.718	NA	10.5%	NA	1.96	NA	1-215	NA	20.81	ΑN	One	なる。子
11.2.5	6,79	0.03	1.719	6.001	124	70	1.53	6.43	9121	0.001	52.02	2000	004	4.8
1130	78-9	0.05	1.670	0.049	13.5	-	261	120	1.193	0.03%	20.66	600	00%	>/ h
1135	48.9	0	1.649	0.021	16.1	0.6	421	0.08	1.169	2000	20.02	0.03	$\overline{}$	1.75
1140	6.34	0	1.628	0.021	13.0	****	1.18	851-1 200	851-1	210.0	0.016 70.65	200	2002	51.75
					-									
								į						
Stabilization Criteria	+/- 0	+/- 0.2 SU	+/-3% of	+/- 3% of Reading	+/- 20 mV**	mV**	+/- 0.2 mg/L**	ng/L**	+/- 10% c	+/- 10% of Reading	+/-0.2°C	.2°C	NA	-

* Not to exceed 500 ml/min

** Resolution accuracy of YSI 556



2.6 gals punged

We answer to you.

Site: Herr Foods, Inc., Nottingham, PA

Weather: ブロロロソ

MW-13 Well Depth:

Well No.:

12 ft.

Meter: Multiparameter With Flow Cell 🦵 ศัสนุก 2 to 12 ft.

Pump: Peristaltic Pump Master F/S

Field Personnel: Bonovan Contell

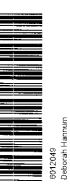
16166

Screened Interval:

Depth To Water Before Pump Installation: $\vec{S}^{-\frac{d}{2}}$ Pump Intake Depth:

Well Diameter:		2-inch		į		Pump Intake Depth:	ce Depth:		9 ft.		Sample Tim	e: 1940	Sample Time: 1049 1151に	
	Hd	Ŧ	Condu	Conductivity	-O	ORP	٥	00	TDS	St	Temp.	ηρ.	Pumping	
	(ns)	(c)	(mS,	(mS/cm)	(mV)	(>	(mg/L)	(1/s	(B/r)	(r)	(၁)		Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
5201	3.1.5	NA	5620	NA	h 302	AN	064	NA	77.5	NA	10.52	NA	350	3.89
250	,	0.07	0,300	2000	139°6	22.7	4,35	5510	0.51.0	7,000-0	11:04	0.57	350	4,60
V./	4,0/10/2	0.02	0.299	0.00 (240,5	9,9	4.41	0000	0.1150	9001C	98 11	0.27	350	4.01
22.5	5.07	6.02	0297	2000	3.48.0	20	4.43	0.0%	8,510	2000C	11.52	0,16	350	503
7527	3015	0.0	10294		455.4	77	4,38		6447	1,00%	8671	0012	350	405
Stabilization		+/- 0.2 SU	+/-3%c	+/- 3% of Reading	+/- 20	+/- 20 mV**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% c	+/- 10% of Reading)-/+	+/- 0.2°C	2	NA

^{*} Not to exceed 500 ml/min



^{**} Resolution accuracy of multiparameter meter

We answer to you.

Site: Herr Foods, Inc., Nottingham, PA

Well No.:

Weather: $\int_{\mathcal{U}_L} w \, u \, \sqrt{}$

2 to 12 ft.

Meter: Multiparameter With Flow Cell স্থিত পথ

Field Personnel: Varanna Connell (STL)

Pump: Peristaltic Pump franton Fley E15

Screened Interval:

Sample Time: $\{O(2 - 1 - 1) = 1\}$ Depth To Water Before Pump Installation: $\mathbb{Z}_+\mathbb{Z}\mathcal{O}$ Pump Intake Depth: MW-12 2-inch 12 ft. Well Diameter: Well Depth:

well Didilletel.		7 11:01											93	
	ā	Hd	Condu	Conductivity	90	ORP	8	0	SQT	Š	Temp.	np.	Pumping	
	. is)	(ns)	(mS,	(mS/cm)	(mV)	S	(mg/L)	(1/3	(a/r)	(1)	(ac)	()	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
SHAS	ともな	ΑN	2112	NA	1751	ΥN	305	NA	0.055	NA	10.15	ΑN	001	2.91
850	12/	02.0	0.165	6.00	1943	67h	957	0.99	7500	200	0.06 10-65	0,50	460	7.90
6455	5.09	D. O'H	10H) 38 G	214.5	20.2	240	90.0	2500	Q.	19.02	0.34	400	296
000)	6.06	0	00	0.00	221.6	1-2	292	200	0.051	0.001	11.33	0.31	400	2.93
500)	200	1370	69103	12	227.7	6.1	2.59	200	2500	1003	500 22-17	500	00%	65.2
V 12	200	0	20.0	1000	1222	in a	3.05	250	3500	1000		570	20 3	200
		!												
										:			i	
Stabilization)-/+	+/- 0.2 SU	+/- 3% c	+/- 3% of Reading	+/- 20	+/- 20 mV**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% c	+/- 10% of Reading)-/+	+/- 0.2°C	2	NA

* Not to exceed 500 ml/min

** Resolution accuracy of multiparameter meter



6012049 Deborah Hannum



Field Personnel: Denovan Corroll (572)

Site: Herr Foods, Inc., Nottingham, PA We answer to you.

50°E MW-3

Weather: ジルルルソ

Well No.:

Pump: Peristaltic Pump かったっかんしゃ たん

Meter: Multiparameter With Flow Cell क्षेत्रकात्रव मिन्न ६ (त् प

Screened Interval:

5 to 25 ft.

25 ft. Well Depth:

Depth To Water Before Pump Installation: $\mathcal{A}_{\mathcal{L}}\mathcal{O}(f)$

Well Diameter:	eter:	2-inch				Pump Intake Depth:	re Depth:		11 ft.	-	Sample Tin	Sample Time: (2 43 ((5))6	1.15/16	
		됩	Condu	Conductivity	ö	ORP	۵	DO	IL .	TDS	Ter	Temp.	Pumping	
į	s)	(su)	(mS/cm)	/cm)	(mV)	(>)	(mg/L)	5/1)	(1/B)	(r) 	(,c)		Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Keading	Change	Keading	Change	(ml/mln)	Water
1805	6.17	ΑN	1.406	NA	-117.5	NA	2,23	NA	1959	NA	1463	NA	300	1000
12.15	e*@ _== *3==	80.0	5351	5.059	O'SHE	18.5	40 W	ĥ700	S (26)	0.024	14.73	6,20	300	5005
57	6.20	100	2.663	0.039	-319.8	200	1.88	91.0	5004	₹010	h & 151	0,0	300	305
1220	12.3	10.0	2,036	S30"₽	188-	2011	1.81	20.0	9604	8,50°0	85.41	710	300	5.06
1225	6.22	-3	2455	5700	8787	Sec.	176	£0 0	2301	h200	03/41	8000	300	5,0%
3	~≤ ~≤ ~≥	<u>.</u>	202	13.0	6.928.	. weeze	15 60	1-3-9	enterna September Septembe	1809	59 H	514	300	0.0
M	35	៍	15.50 15.50	42	6.88.			- - - -	2011	5129	19111	1212	300	5.12
URYO.		3	2,278	6.025	1.146.2	0.5	to be a	6.01	0/4/7	MOO	17.17	5,00	300	21.5
	!													
Stabilization		+/- 0.2 SU	+/- 3% of Readir	f Reading	+/- 20	+/- 20 mV**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% (+/- 10% of Reading)-/+	+/- 0.2°C	V	NA
3														

^{*} Not to exceed 500 ml/min



2.8 gallens funged

6012049 Deborah Hannum

^{**} Resolution accuracy of YSI 556

Field Personnel:

Site: Herr Foods, Inc., Nottingham, PA We answer to you.

Weather: Overcook 4800

Date: 15 14

MW-4

19 ft.

Well Depth: Well No.:

Pump: Peristaltic Pump | Musher Alox | E/S

Meter: Multiparameter With Flow Cell Hanne Hi 96194

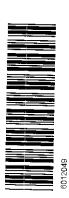
Screened Interval:

Depth To Water Before Pump Installation: arnothing0 to 19 ft.

Sample Time: $|\vec{\mathcal{L}}| = |\vec{\mathcal{L}}| = |\vec{\mathcal{L}}|$ 10 ft. Pump Intake Depth: 2-inch Well Diameter:

	_		√ 1		т.	- 1				 - 1		
	Depth To	Water	5.94	, CO /2	6.00	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	X19					NA
Pumping	Rate*	(ml/min)	320	320°	320	320	320					Z
Temp.	(°C)	Change	NA	6.17	0.05	7.2	70:0					+/- 0.2°C
Ter	٤	Reading	8091	11.51	blist	15,25	67.31) -/+
TDS	/L)	Change	AN		0.001	80010	E 200					+/- 10% of Reading
ľ	(g/L)	Reading	,575	<i>38</i> 5'	5851	7351	085					+/- 10% 0
D0	(mg/L)	Change	۷N	663	600	18 3	¥0*0					+/- 0.2 mg/L**
٥	(m	Reading	19516	134	SSI	461	76					+/- 0.2
ORP	V)	Change	NA	23.1	10:3	The second secon	30.3					+/- 20 mV**
ō	(mV)	Reading	19 M	1901-	-156.3	156.4	797-					+/- 20
Conductivity	cm)	Change	NA	0.685	(no)	737	200					+/- 3% of Reading
Condu	(mS/cm)	Reading	771:	THE SEC	W. H	2211	2					+/-3%0
Hd	n)	Change	NA	500	300	10.3	10.3					+/- 0.2 SU
<u> </u>	s)	Reading	S/17	9.519	959	15.7	£(c) 9					3-/+
		Time	10	S. C.	1326	022	22					Stabilization Criteria

^{*} Not to exceed 500 ml/min



6012**04**9 Deborah Hannum

^{**} Resolution accuracy of YSI 556



Site: Herr Foods, Inc., Nottingham, PA We answer to you.

Date: [| 14 | (6

LOW-FLOW PURGUING AND SAMPLING

DATA SHEET

Field Personnel: Denovan Conve (((STL)

Pump: Peristaltic Pump PARSTEC Flex 6/5

Meter: Multiparameter With Flow Cell けっぱいの9 けらのありの

7 to 27 ft. Screened Interval: MW-5 Weather: Sunny

Depth To Water Before Pump Installation: 🥰 💪 🖒

27 ft.

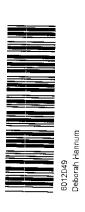
Well Depth: Well No.:

Pump Intake Depth: 2-inch Well Diameter:

		7 11 1211				r unip intake Depuil.	יב הכשנווי		10 11.		Sample Time: おきれる ユンピア	le: () ()	6 1 16 9	, i
	Ω,	Ha	Condu	Conductivity	ORP	d≥	Ŏ	ОО	11	TDS	Ten	Temp.	Pumping	
	S)	(sn)	(mS/cm)	(cm)	(mV)	۸)	(mg/L)	(1/	(B/r)	(1,	<u> </u>	(°C)	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
1230	253	ΑN	1.064	NA	54.9	NA	07.0	NA	62.83	NA	227	NA	310	12/2
7335	e4 2_	0.34	250-1	Ω·00 <u>1</u>	2.5	7.7	\$2.3	240	0.524	0	17.02	6.25	310	120
12.40	5.0	0.1%	1-166	0089	34.9	22.7 626	226	200	5.553	× 20 0	5121	E)-0	018	50
1245	かって	5.04	1.12tt	2100	120	14.3 6.24	120	200	7350	රුගුත්	2221	50.0	210	4.80
1250	でなっ	200	1.145	0.02.1	10,0	10,0	42.0	0	0.573	0.011	17.20	200	310	7- 0-
1255	495	0	1-167	0022-338	-33.8	4384	0.0	10.0	h85"0	1100	6721 1100	300	316	7 60
1300	ゴップ	0.01	1.160	0.007	-68.4	34.6 6.24	0.20	0.01 6.550	6.500	1.00°0	75.11 hoord	0.13	310	4.83
365	4.00	0,01		7000	572.	7	12.0	80.0	2250	72000	0.002 (7.37	503	316	20.00
Stabilization Criteria	0-/+	+/- 0.2 SU	10 %E -/+	+/-3% of Reading	+/- 20 mV**	mV**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% 0	+/- 10% of Reading	0-/+	+/-0,2°C	AN	
					-	¥ .		1						

^{*} Not to exceed 500 ml/min

^{**} Resolution accuracy of multiparameter meter



2.9 gallons Pruged



We answer to you.

Site: Herr Foods, Inc., Nottingham, PA

Date: 1/14/16

Weather: Śェロルタ

6-MM Well No.: 20 ft. Well Depth:

2-inch

Screened Interval:

3 to 20 ft.

Meter: Multiparameter With Flow Cell 카리자에 보니 9중 19 +

Pump: Peristaltic Pump Master Place 5/5

Field Personnel: Dencara Connell

Depth To Water Before Pump Installation: $\mathcal{Z} \, q \, \oplus \,$

Well Diameter:	eter:	2-inch				Pump Intake Depth:	ke Depth:		10 ft.		Sample Tim	ie: 1218	Sample Time: [218 14 5	
	ā	Ha	Condu	Conductivity	ō	ORP	٥	DO	Sat	S	Temp.	ηb.	Pumping	
	(ns)	<u>(</u>	(mS	(mS/cm)	E)	(mV)	m)	(mg/L)	(g/L)	(1)	(ລູ)	()	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
2	2	NA	245	NA	671-	AN	200	NA	1.226	NA	3 47	NA	400	٤, إ وا
\$ \frac{1}{2}	73.50	0,02	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	0.002	-2.2	 -3	000	0	2221	0	13.96	6.3	1,000	17.7
1200	5.50	0	P. 454.	0,001	200	**************************************	77 05	0.31	4727	1000	(259	800	400	4.25
2021	300	<	555	0.001	1.07-	8	6.22	1,00	2221	4	13 85	0.03	400	77.5
2	6.52	23	596-2	010.0	272	,	12.2	103	682-1	9000	00 h	51.5	005	4.39
ار ا ا	55	S	2.50	C	2. 2.	\$5. !	6.22	100	182-1		26-61	10°C	003	0h. h
											!			
Stabilization		+/- 0.2 SU	+/- 3% c	+/- 3% of Reading	+/- 20	+/- 20 mV**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% c	+/- 10% of Reading) -/+	+/- 0.2°C	2	NA

* Not to exceed 500 ml/min

** Resolution accuracy of multiparameter meter



2. 6 gallons Purged



Field Personnel: Darovan Canrell (576)

Pump: Peristaltic Pump Masher E15

Meter: Multiparameter With Flow Cell $\not \vdash_{\mathcal{A}_u,u} \mathcal{O}$

We answer to you.

Site: Herr Foods, Inc., Nottingham, PA

Date: [| (5 | / 6

430 63 Weather: ≶

MW-11

12.5 ft.

Well Depth: Well No.:

2-inch

Screened Interval:

2 to 12.5 ft.

4198184

Depth To Water Before Pump Installation: $\mathcal{O}.\mathcal{Z}\overrightarrow{\forall}$

Sample Time: 15 43 1 - 15-16 11.5 ft.

Well Diameter:		2-inch				Pump Intake Depth:	ke Depth:		11.5 ft.		Sample Tim	Sample Time: ルザラ (-15-46	1-15-16	
	ci.	Hd	Condu	Conductivity	ō	ORP	۵	DO	11	TDS	Ten	Temp.	Pumping	
	(S)	(sn)	(mS,	(mS/cm)	E.	(mV)	(mg/L)	(1/)	(B)	(g/L)	(°C)	()	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
9	25.50	Ϋ́	2777	NA	2046	NA	3.20	ΥN	2220	NA	5 871	NA	200	0.81
5111	ンタウ	20.0	6,563	2200	205.7	6-0011 2.52	2.52	89.0	2500 890	200	0.018 11.59	0.24	300	0.62
120	5.94	O	8.524	120-0	20% 3	9.0	2-59	0.17		0.006 11.48	11.48	0.11	300	9.62
5 2 H	3.94	0	6.528	4,000	2-102	2-1	2-73	400	0,04 0,264	12.00 11.61		1.13	300	8.62
1130	5.44	0	0.535	2.00.0	197.5	1	2.7.2	100	0.01 0.267	5.003 11-63	11-63	6.03	300	0.62
<u></u>	5,95	o v	0.528	1.000	6.5%	27	2-70	200	9920	10000	8.9°H	0	300	0.62
140	2.9.5	0	9750	7003	178.5	t of t	200	10.0	2970	4971 4 000	771	10.0	300	0.62
						, <u> </u>								
	:												_	
Stabilization Criteria) -/+	+/- 0.2 SU	+/-3%0	+/- 3% of Reading	+/- 2C	+/- 20 mV**	+/-0.2	+/- 0.2 mg/L**	+/- 10% (+/- 10% of Reading) -/+	+/- 0.2°C	Z	NA

^{*} Not to exceed 500 ml/min



2.4 gallons punged

6012049 Deborah Hannum

^{**} Resolution accuracy of multiparameter meter

Site: Herr Foods, Inc., Nottingham, PA We answer to you.

Weather: 🔊 👡 🛪 🔻

LOW-FLOW PURGUING AND SAMPLING DATA SHEET

Field Personnel: Portoran Come ((STL)

Pump: Peristaltic Pump がながったらい モノタ

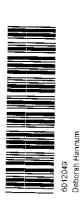
こからかしま Meter: Multiparameter With Flow Cell - स्विम्मान्स

Sample Time: 1138 1/14/16 Depth To Water Before Pump Installation: $\mathbb{C}[\mathbb{C}^{\mathcal{C}}]$ 3 to 20 ft. Screened Interval: MW-10 20 ft. Well Depth: Well No.:

Well Diameter:		2-inch				Pump Intake Depth:	(e Depth:		10 ft.		Sample Time: 1178 1/14/16	18: 1138	1/14/16	
	a.	Hď	Condu	Conductivity	, g	ORP	OQ	0	Sat	S	Temp.	ηp.	Pumping	
	(ns)	ŝ	(mS	(mS/cm)	(m/)	(>	(mg/r)	(1/2	(1/8)	(1)	(°C)	()	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
15 O	N	ΑN	2.202	NA	2.001	ΑN	000	NA	101	NA	16.05	NA	10 17 0	4.25
S ; ==	12,	200	1577	0.0%	108.9	\$7	20.0	0		0.020	0.020 16.13	0.08	245	4.31
\$5°%	500	0	224	200	**************************************	2.2	5.00	0	1-122	0.001	0.001 16.22	600	976	4.35
二 分 万	39	0.01	2-237	0.004	113.2	2.1	0.00	Û	1217	92.91 1000	16.26	500	340	4.39
50	335	0	2.247	0.0101138	847	9.0	0.00	ş	17)-1	0	16.37	6.07	340	H
100 mm	7.00	0.02	2.25	1 10.0	12.3	0 7	000	0		31 4000	6531	0.20	348	14.4
50	525	0.01	100	H-00'0	-7:1	2.0	00.00	ð	1-109	1 5 91 8 90 0	12 6 91	0.06	340	17.71
Stabilization Criteria	7 -/+ C	+/- 0.2 SU	+/-3%c	+/- 3% of Reading	+/- 20	+/- 20 mV**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% c	+/- 10% of Reading) -/+	+/- 0.2°C	Z	NA

* Not to exceed 500 ml/min

** Resolution accuracy of multiparameter meter



Field Personnel: Roberton Correct (STD)

Site: Herr Foods, Inc., Nottingham, PA We answer to you.

Date: | | 15/16

Well Depth: Well No.:

50 0 0

Pump: Peristaltic Pump かいがんしゃ ぜんち

71.98/44 Meter: Multiparameter With Flow Cell 🐰 ಟ್ರಾನ್ಯಾತ್ರ

3 to 20 ft. Screened Interval: MW-7 20 ft. Weather: Sunny

Depth To Water Before Pump Installation: $\S{\mathscr{GL}}$

Well Diameter:	ieter:	2-inch				Pump Intake Depth:	ce Depth:		8 ft.		Sample Time: (2 (2 (-15-1)	ie: <equation-block></equation-block>	(2)	16
	<u>g</u>	Hď	Condu	Conductivity	Ö	ORP	۵	00	Ħ	TDS	Ten	Temp.	Pumping	1
i 	(\$	꼴	(mS	(mS/cm)	E)	(mV)	E .	(mg/L)	(g)	(g/L)	(°C)	() ()	Rate*	Depth To
Time	Reading	٥	Keading	Change	0	Change	Keading	Change	Keading A	ນ	Keading	Cliange	(mm/ mm)	, varci
01-80	5.66	NA	6.507	NA		NA	215	NA	6.253	NA	13.99	NA	07 07 07 07	3.3
0580	200	200	007 093	0.0%	40	27:72	1.72	1.43	0.255	0.002	0,002 4,80	j S	376	
25.80		0,0	0.505	2002	174.2	20.5	86-1	10.0	0.252	6000	15,80	0	326	6.65
20 60	N N	0	0 H 30	0.006	0.006-140.0		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	100	1.249	1,200	58.5	9ħ~Q	226	2-3
5080	5.77 0.01	100	264.0	033	37.41.	5	1.6.1	200	2420	1000		6.07	320	92-9
2160		630	6497			1.3		l	2550	2100	1549	0,00	228	6.70
, -								-						
													-	
														ļ
Stabilization	ļ 	+/- 0.2 SU	+/- 3% 0	+/- 3% of Reading	+/- 20	+/- 20 mV**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% (+/- 10% of Reading)-/+	+/- 0.2°C		NA

* Not to exceed 500 ml/min

** Resolution accuracy of multiparameter meter



2.5 gallow purged

6012049 Deborah Hannum



We answer to you.

Site: Herr Foods, Inc., Nottingham, PA

Date: 4 75

70 2-Weather: 🎎 🗀

MW-3 Well No.:

25 ft. Well Depth:

Depth To Water Before Pump Installation: 김 55

Sample Time: 4 7/1/2 113/4

Pars Shirt: 1100

からし

Meter: Multiparameter With Flow Cell 分のスカッタ ドブ

5 to 25 ft.

Screened interval:

Field Personnel: Devector of Comment (STL) Pump: Peristaltic Pump Awachve 角は水下

wen webut:		£3 IL.									がなべ	ころなど くなえ・ こうか	ý	
Well Diameter:		2-inch	,			Pump Intake Depth:	e Depth:		11 ft.		Sample Time: * 1716 1134	ne: 4 (7)),	134	
	Ho	I	Condu	Conductivity	ORP	e.	OG	C	1	TDS	181	Temp.	Pumping	
	(sn)	· 6	(mS/cm)	(cm)	(mV)	(>	(mg/L)	(1)	(B)	(g/t)	(o.)	: :	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
107	6-18	NA	055	NA	OZL	AN	250	NA	0.770	NA	2.6	NA	100	3.70
0	0,27	30	1000	50	180	7-12	<i>£</i> 50	0.04	0.04 0.500	0500	5221	0.04	004	5 75
54	118-623		509	3700	3.25			187	H/8 0	0.0 1284 COH 1284 006	13 21	200		400 52
721	277 021	202	373		200	53	2000	4 3	20	1205	7.421	Ô.	400	978
72	6.27	0.0	Same of the same o	2000	0801.	8. S.	0.41	2	340	0.000	1821	Ç.,	400	13 7 E
in	0.082-0	00	(A)	2000	1301-	2.1	0.91	0	0.848	0.003	1284	0.03	00h	2 X
													:	
COMPANIE OF THE PROPERTY OF TH														
		5												
Stabilization	J-/+	+/- 0.2 SU	*/-3%°	÷/- 3% of Reading	+/- 20	+/- 20 mV**	+/-0.2	+/- 0.2 mg/L**	+/- 10% (+/- 10% of Reading	1-/+	+/-0.2°C	4	NA
Criteria										Annual Control of the				

^{*} Not to exceed 500 ml/min



3.2 gals punged

^{**} Resolution accuracy of YSI 556

LOW-FLOW PURGUING AND SAMPLING DATA SHEET

We answer to you

Site: Herr Foods, Inc., Nottingham, PA

Date: +17116

はいい Weather: Rain

MW-4

Well Depth: Well No.:

Screened Interval:

0 to 19 ft.

Meter: Multiparameter With Flow Cell ganaca けるないの

Field Personnel: Browning (571) Pump: Peristaltic Pump かななられてましょ 角を繋ぎ

Page Spot: 145 Sample Time: 4/7/16 2217

Depth To Water Before Pump Installation: eta $\mathcal{O}\mathscr{F}$ 19 ft.

l	_		_
j k		Pumping	Rate*
19 A MARIE TO SOUTH TO SHARE		Temp.	(3)
TO 1:		TDS	(g/L)
	To the state of th	00	(mg/L)
rump intake Depui.		ORP	(mV)
		Conductivity	(mS/cm)
2-inch			(18)
stor.			

Well Diameter:		2-inch				Pump Intake Depth:	ke Depth:		10 ft.	3	Sample Tim	Sample Time: ** 1776 200	i,	
	1		Conductivity	-fivitv	Ö	ORP	OG	0	YDS	Ş	Temp.	G.	Pumping	
	(IIS)	_ =	(mS/cm)		<u> </u>	(mV)	(mg/L)	1/r)	(a/a)	ב	(°C)	~	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
0.5	5.1.5	AN	2000	NA	200	NA	201	NA	0, 401	NA	13.00	NA	400	
	7.12	00	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.027	200	7-1	26.0	200	0.07 0.34	0.00	13.11	0.0%	034	24
+0000 m	1 1	13-0				1		S	10000	0 002	13.00	0.7	004	119.7
	77 15 7	50 3		2003							15.04	Š	00	
	9000		36.0			70	200	0	6.43	6.002	62.63	0,03	(00)	195
					5.			TO TO TO TO TO TO TO TO TO TO TO TO TO T			ı.			
	110													
												Li HOCA		
				Tiles										
				N										
Stabilization		+/- 0.2 SU	+/-3% of	of Reading	+/-2	+/- 20 mV**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% (+/- 10% of Reading	-/+	÷/- 0.2°C		NA

** Resolution accuracy of YSI 556 * Not to exceed 500 ml/min



2.6 gals purged

-HAProjects\10172\101722001\GS\Site.Characterization\Low_Elow Data.Sheet.xlsx.



Weather: 47°F Sunny

Date: 4 (6/16

MW-5

Well Depth: Well No.:

LOW-FLOW PURGUING AND SAMPLING DATA SHEET

6040798 Deborah Hannum

Field Personnel: Booman Corne 11 (STL)

Pump: Peristaltic Pump Progetive Alexre

Meter: Multiparameter With Flow Cell ਮਿਕਲਨ

Screened Interval:

7 to 27 ft.

Depth To Water Before Pump Installation: ${}^{k}_{i}, b \mid i$

Funga Stanted: 1340 Sample Time: 4/6/16 1909

Weli Diameter:		2-inch				Pump Intake Depth:	ke Depth:	Pump Intake Depth:	10 ft.	 	೯೩೭೫ ≥ シた Sample Tin	Funga Stanted = 10 Tu Sample Time: 4/1/1/2 1404	さりさし		
	a.	pH	Condu	Conductivity	ō	ORP		00	İ	TDS	Jel Je	Temp.	Pumping		
	(ns)	n)	(mS	(mS/cm)	u)	(mV)	(m	(mg/L)	(a/r)	(i)		ري _.	Rate*	Depth To	
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water	
1348	4.85	NA	1.007	NA	120.4	NA	1.07	NA	h05:0	NA	15.03	NA	00h	381	
1350	4.85	0	1-0-24	270.0	9721	~	0, 49	800	215.08 0.515	0.011	20.011 14.92		æħ	3.85	
355	18.30	0.0	1.+97	200	272	4	960	0.03	225.0 80.0	5.007	2641 1000	0	-004	580	
001 1001	1200 - 456 - One	projection (A) per	1.00	Ø) 3	125. K	-6% 	0.94	125 4 13 5 0 94 202 0 5 2 1 1:02 14 3 2 1:01 1:00	0520	5003	10 00	10.0		1 18	No.
							The said			SEP - (M)S-					
										A STITLE STATE OF THE STATE OF					
					Î										
						OH,									
					-										
														70	
•															
Stabilization	-/- 0.2 SU	.2 SU	0%E-/+	+/-3% of Reading	+/- 20	+/- 20 mV**	+/- 0.2	+/- 0.2 mg/L*#	+/- 10% 0	+/- 10% of Reading	7-/+	+/-0.2°C	ĄN		

* Not to exceed 500 ml/min

** Resolution accuracy of multiparameter meter

LOW-FLOW PURGUING AND SAMPLING DATA SHEET

We answer to you.

Site: Herr Foods, Inc., Nottingham, PA

Date: 1/7/6

Weather: 犬っこ

MW-7 Well No.:

20 ft. Well Diameter: Well Depth:

2-inch

Meter: Multiparameter With Flow Cell flemmy 片丁 99194

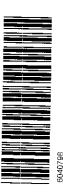
Field Personnel: Dangera Correll (STL) Pump: Peristaltic Pump やかって 行った みんたいち

Sample Time: 4/7/6 1044 Screened Interval: 3 to 20 ft. p.a..
Depth To Water Before Pump Installation: 2748 133 Page Short 10 1 S

Well Diameter:	neter:	2-inch				Pump Intake Depth:	ce Depth:		8 ft.		Sample Time: 4/7/6 1045	ie: 4/7/12	5501	
	. a	Hd	Condu	Conductivity	ō	ORP	OQ	0	TDS	\$(Temp.	ηD.	Pumping	
	S)	(su)	(mS	(mS/cm)	ш) —	(mV)	(mg/L)	/1)	(8/1)		"(၃)		Rate*	Depth To.
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
1020	5.83	NA	6443	NA	234	NA	3	NA	0.221	NA	2421	ΝA	150	4.75
529		0.04	4240	0,019	7	53.3	, 0	0.2%	0.2(3	2.21 3000	12.75	0.33	20h	70-7
1030	1050 577	CHO 200	6.4.3	102		1. 2.	6.50	0.00 0.00		100	Ţ- 	27.2	201,	3
10.00	1045 578 001 049	100	5.4.8	50	MAY CHANGE	64	200-500 100 250		020	780	1. 2. C. C.	0.0	14.00	5:00
のさの	5.31	0.03	5240	2000	5,0	B &	093	0.0	0.210	13 13 10		0,0%	000	5.02
												17 10 10 10 10 10 10 10 10 10 10 10 10 10	ļ	
								TATELL .						
Stabilization	0-/+	+/- 0.2 SU	+/-3%0	+/-3% of Reading	+/- 30	+/- 20 mV**	+/- 0.2	+/- 0.2 mg/L**	+/- 10% 0	+/- 10% of Reading	+/- 0.2°C	1,2°C	NA	-

* Not to exceed 500 ml/min

** Resolution accuracy of multiparameter meter



2.6 gals, purged

6040798 Deborah Hannum



Site: Herr Foods, Inc., Nottingham, PA We answer to you

Date: 4/6/16

LOW-FLOW PURGUING AND SAMPLING DATA SHEET

6040798 Deborah Hannum

Field Personnel: Davascar Correll (571)

Pump: Peristaltic Pump An active Aleuis

h 5 1 3 6 1 H Meter: Multiparameter With Flow Cell দুরুরুদ্ধ

3 to 20 ft. Screened Interval: MW-9 Weather: 46°F Sunny Well No.:

Depth To Water Before Pump Installation: 2.05 20 ft. Weil Depth:

Sample Time: 4/6// Parga Started: 1150

Well Diameter:		2-inch				Pump Intake Depth:	ce Depth:		10 ft.		Sample Time: $langle / arphi angle$	3// <i>9//</i> / :au	1228	
	Hd	.	Condu	Conductivity	Ö	ORP	۵	00	1	TDS	Ţer	Temp.	Pumping	
	(ns)	(in	(mS	(m2/cm)	(mV)	(A)	(mg/r)	(1/:	(g/L)	·(1)	(5°)	c)	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
1155	6.00	ΝA	0157	NA	246	NA	1.14	NA	0.36	NA	11.75	NA	700	2.10
0021	50°9	0.04	0251	9100	1-78	52	1.04	170	h91 0	0.005	0.005 11.70	0.32	22%	3.19
5 02)	503	Ś	2851	8.28 9000	3.25	2.0	0.7 1.07	100	2767	0.00 g 11.85		015 -	£00	221
25	337	0.0	1.562 - 233	2020	25.8	20	264	100	201 685 CAX 124 226	att S	12.11		1800	322
1215	203	0	h09-1	0.037		1-7	107	10.0	2020	6.017	12-13	7.02	1905	スエス
1220	6.02	10.0	1.622	\$100	24.7	9 0	1.00	10.0	015.0	8000	12.14	0.01	100	4.7°
5221	6.00	200	1.63	6000	71.5	4.0	5.99	100	0813	0.003	12-15	6.01	003	323
				-			-							
		, (III)												
Stabilization Criteria	0-/+	+/- 0.2 SU	-/-3% €	+/- 3% of Reading	+/- 20	+/- 20 mV**	+/-0.2	+/- 0.2 mg/L**	+/- 10% c	+/- 10% of Reading) -/÷	÷/- 0.2°C	_	NA

^{*} Not to exceed 500 ml/min

^{**} Resolution accuracy of multiparameter meter



We answer to you.

LOW-FLOW PURGUING AND SAMPLING DATA SHEET

6040798 Deborah Hannum

Field Personnel: Dan was a Correll (STL)

Pump: Peristaltic Pump Progressive Alexis

Sample Time: 1/6/1/6 11 34 Progra Standad: 1110 Meter: Multiparameter With Flow Cell Hann, 라이아 함께 다 Depth To Water Before Pump Installation: 3. 歩す 3 to 20 ft. Pump Intake Depth: Screened Interval: 100 MW-10 2-inch 20 ft. Weather: Sanay Well Diameter: Date: 4/6/16 Well Depth: Well No.:

מכוו בותוויביני							-				A. Strategies and Str			
	Ha	-	Condu	Conductivity	Ö	ORP	00	0	TDS	Š	Temp.		Pumping	
	(ns)	- T	(mS	(mS/cm)	(mV)	<u> </u>	(mg/L)	:/1)	(B/r)	(1,	(),)		Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(ml/min)	Water
	195	NA	247	NA	200	NA	0.97	NA	0.736	NA	14.28	NA	400	3.32
120	2.60	10.0	CH-1	0.003	079	0.2	350	200	2213 200	1000	2,001 17.24	0.04	20%	338
57.00	276 2	100	565	001000	200	1.2	560	500	2460 100		2008 14.31 0.07	007	Th 6 Och	200
1 2	25	283	2.600	8100	27.6	2.5	75.3	- J J	15279		A 109 (4.35)	204	W.	3.42
AND														
			and the state of t											
			and the same of th							The second secon				
	100								the state of the s					
		Managara .												
Stabilization Criteria	0-/+	+/- 0.2 SU	+/- 3% of Read	of Reading	+/- 5C	+/- 20 mV**	+/-0.2	+/- 0.2 mg/L**	÷/- 10% c	+/- 10% of Reading)-/4	*/-0,2°C	NA	<t< td=""></t<>

* Not to exceed 500 ml/min

** Resolution accuracy of multiparameter meter

Site: Herr Foods, Inc., Nottingham, PA We answer to you

かった。

Weather: Rain Date: 4 7/6

Well Depth: Well No.:

LOW-FLOW PURGUING AND SAMPLING **DATA SHEET**

Field Personnel: Revising (Source | (STL)

Pump: Peristaltic Pumpstv ショイトンと Alexis

Meter: Multiparameter With Flow Cell たい nurif

2 to 12.5 ft. Screened Interval: MW-11

Purge Start: 0925 Depth To Water Before Pump Installation: $\mathcal{O}.\mathcal{Z}^{\frac{1}{4}}\overset{*}{*}$ 12.5 ft.

					no Alexander I barrage	1- balon 210	7	vator sittle	In motest	Parish Carried							
		Depth To	Water	0.03	0.05	100	0.0	11.0						7			NA
0954	Pumping	Rate*	(ml/min)	100	00h	10 m	10:2	00H3									2
Sample Time: 1/17/16 0954	Temp.	(°C)	Change	NA	500	58-0 650	2	0									+/-0.2°C
Sample Tir	Te	-	Reading	10.69	10.78		83.3	23-01									*
	TDS	(g/L)	Change	NA	0	150 1920	200 200 2000	0.001									+/- 10% of Reading
11.5 ft.	11.	(g	Reading	Zbh0	のおえ	1920	2000	2770									+/- 10%
	0	(1/3	Change	NA	200	0.1	100	10.0									+/-0.2 mg/L**
e Depth:	00	(mg/r)	Reading	59-1		1.450	7	\$ t.									+/-0.2
Pump Intake Depth:	d≿	· >	Change	NA	200	7.27	27	7.7						86	Deborah Hannum		+/- 20 mV**
	ORP	(mV)	Reading	0.0%)	122	383	1	2003						6040798	Debora	1	+/-20
	ctivity	cm}	Change	NA	0.00i	500 540	0 652 008 280	000	Additional Party and a second pa								+/- 3% of Reading
	Conductivity	(mS/cm)	Reading	0 th 0	0,493	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	5.22	0.525				The contract of the contract o					-/-3%0
2-inch		- T	Change	NA	0			O					To the state of th				+/- 0.2 SU
	돏	(SU)	Reading	7.2×	T. W. T.	5. 22. 0.02	282	5.87									0-/+
Well Diameter:			Time	06,30	25.50		265 3700	850						į			Stabilization

2.6 gals pangad

* Not to exceed 500 ml/min

** Resolution accuracy of multiparameter meter

* From top on metal protective casing, mater was avarthoung inverpre casing.



Weather: Sunny Date: 4/6/16

Well No.:

LOW-FLOW PURGUING AND SAMPLING DATA SHEET

Deborah Hannum

Field Personnel: Vandama Correll (5714)

Pump: Peristaltic Pump Progetive Alexis

Meter: Multiparameter With Flow Cell Hanna 計1 9多 194

2 to 12 ft. Screened Interval: MW-12 Depth To Water Before Pump Installation: 🕜 🚑

12 ft.

Well Depth:

73.6 Depth To 7.4.7 24.5 13.7 W Water Ž (ml/min) Sample Time: 4 (6)/6 1005 Pumping 0000 Rate* 1967 Change 0.03 0 0.03 000 C₃ **(** +/-0.2°C Temp. Reading 12. (2) 16.30 27.20 N₁ Št. 67 0 3 2000 Change 200 +/- 10% of Reading は然びの . 60 × Z A (g/L)TOS Reading 1200 5030 2400 7300 000 1.600 Change 200 0.83 5 12.8 +/- 0.2 mg/L** 5 (mg/L)Reading 777 ナガン Pump Intake Depth: 50 3.97 Change ΑŽ +/- 20 mV** ORP (mV) Reading りまれる 5.792 1.350 177 13 2 1300 1000 オペラの Change 4/- 3% of Reading 0 0.00 ٧ Conductivity (ms/cm) Reading 0.477 200 かんのつ 0.0 Change 0 2 2 0.0 ZA 2-inch */- 0.2 SU pH (SU) Reading 7 125 308 5 Well Diameter: 67 3000 Stabilization 08.70 300 5460 Time 0000 000

Control of the Contro

* Not to exceed 500 ml/min

** Resolution accuracy of multiparameter meter

2.6 gals, purged



Weather: ジェカハリ

Well Depth: Well No.:

Date: 4 1/2 1/15

LOW-FLOW PURGUING AND SAMPLING **DATA SHEET**

6040798 Deborah Hannum

Field Personnel: Donovan Const (STL)

Pump: Peristaltic Pump Proceetive Alwars

Meter: Multiparameter With Flow Cell Hanne HT. NT 1944

Depth To Water Before Pump Installation: 348 2 to 12 ft. Screened Interval: MW-13 12 ft.

start purge - 1020

Well Diameter:		2-inch		ļ		Pump Intake Depth:	ce Depth:		9 ft.		Sample Tim	16: 4.6.	Sample Time: 4/6/16 1044	÷
	Hđ	I	Condu	Conductivity	õ	ORP	٥	00	TOS	\$1	Temp.	np.	guidmuđ	
	(ns)	S	(mS/cm)		m)	<u>\</u>	(mg/t)	(1/2)	(g/L)	(1)	(0)	(3)	Rate*	Depth To
Time	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	(mi/min)	Water
1025	ナッナ	NA	0.283	NA	262.1	NA	4.45	NA	2/11/0	ΝΑ	10,00	NA	<i>63</i>),	1.6
0601	56.3	0	7.520	0.001	276.5	j	ナナ・ナ	00	2,141	0,001	10.09	0.09	W.	4.20
1035	. Q .	000	1630	0.02	2970- 20.5	-572	Land Fr	250	1717	00	500 00 100	100	12 0H	427
-2 ha-	0	ake 0 200			7. 7.7. 2.		176. 72	£ 17 27 27	13 F.C	0.000	2007 1000		200	12 to
	A STATE OF THE STA													
			140											
		7												Ē
Stabilization Criteria	0-/+	+/- 0.2 SU	+/-3%0	+/- 3% of Reading	+/- 20	+/- 20 mV**	+/-0.2	+/- 0.2 mg/L**	+/- 10% of Reading	fReading) -/+	+/- 0.2°C	NA	A

* Not to exceed 500 ml/min

** Resolution accuracy of multiparameter meter

2.1 gals, provoged



Date: 4 16/16

We answer to you

LOW-FLOW PURGUING AND SAMPLING **DATA SHEET**

Field Personnel: Jon avan Corre 11 (STL)

Pump: Revistaltic Pump ESP SS. Mouseen Pro

Meter: Multiparameter With Flow Cell Hisanga およ ずぞ 194

3451 : 12-121 2 45 Depth To Water Before Pump Installation: 5.7130 ft 100 Ct. 74027 ft.-Pump Intake Depth: Screened Interval: 2-inch 6- 13 / h MW-F SW 27 ft. ? Weather: 46 F Smany Well Diameter: Well Depth: Well No.:

Sample Time: 4/2/12 1313

		Depth To	Water	5:36		5.43	5h 5	5.46	548						A
	Pumping	Rate*	(ml/min)	~00	٠	00%	11.00 %	670 A	400						NA
S) (3)	<u>ā</u>		Change	NA		123	700	h2'0	500			ļ - ,			J.,C
Sample little: 4 (5 (5 12)	Temp.	ວ	Reading	13.86		89%	120 H	14.27	14.32						-/- 0.2°C
		_	Change	NA	أناة	2012	70.0	0,001	0.001			,			F Reading
stort. ワントキ	TDS	(B/r)	Reading	0.4.9	TSAMPL	1640	# 450	52h0	82h0						*/- 10% of Reading
,		(1)	Change	NA	C.DO NO	6.3	20	0.16	0.17						ng/L**
e Depuii	00	(mg/r)	Reading	1.94	VEL-ONU	1.64 63 0431	357	82-1							 +/- 0.2 mg/L**
Fump Intake Deput	۵	_	Change	NA	VATER LE	1375	0%	3.5	4.4	-					mV**
	ORP	(mV)	Reading	-53.7	MEASURE WATER LEVEL ONLY. DO NOT SAMPLE.	122	之子名,	6.63	1.20-						 +/- 20 mV**
	tivity	cm)	Change	NA	Z	0.030 - 7.77	200	7000	0.002					 	Reading
AC M	Conductivity	(m2/cm)	Reading	0.832		0.962	11 W 12	3520	0.367						+/- 3% of Readin
Z"ITICH 6-14CM	-	_	Change	NA			- 964-200 E2H 2009 WEN 20 THAT 67 WILL 67 WOO JOSS - 1985	0	0		:				+/- 0.2 SU
	¥	(sn)	Reading	6.42		259		25-9	6.52						-/-0
well Diameter:			Time	1250	534	552		502	1310						Stabilization Criteria

* Not to exceed 500 ml/min

** Resolution accuracy of YSI 556



APPENDIX G Groundwater Sample Laboratory Analytical Reports

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

March 16, 2015

Project: Herr Foods, Inc.

Submittal Date: 03/09/2015 Group Number: 1543676 PO Number: 101722001 State of Sample Origin: PA

Client Sample Description	Lancaster Labs (LL) #
MW-1 Grab Groundwater	7796532
MW-2 Grab Groundwater	7796533
MW-5 Grab Groundwater	7796534
MW-4 Grab Groundwater	7796535
MW-3 Grab Groundwater	7796536
Supply Well Grab Potable Water	7796537
Trip Blank Water	7796538

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/.

ELECTRONIC COPY TO

Rettew Associates

Attn: Ed Dziedzic

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Respectfully Submitted,

Stacy L. Butt Specialist

(717) 556-7236



Analysis Report

Account

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1 Grab Groundwater

Herr Foods, Inc.

LL Sample # WW 7796532 LL Group # 1543676

00721

Project Name: Herr Foods, Inc.

Collected: 03/09/2015 10:55 by EGD

Rettew Associates

3020 Columbia Avenue
Submitted: 03/09/2015 17:05

Lancaster PA 17603-4011

Reported: 03/16/2015 16:12

HERR1

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	D150701AA	03/11/2015 16:30	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D150701AA	03/11/2015 16:30	Daniel H Heller	1



Analysis Report

Account

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2 Grab Groundwater

Herr Foods, Inc.

LL Sample # WW 7796533 LL Group # 1543676

00721

Project Name: Herr Foods, Inc.

Collected: 03/09/2015 12:00 by EGD

Rettew Associates

3020 Columbia Avenue
Submitted: 03/09/2015 17:05

Lancaster PA 17603-4011

Reported: 03/16/2015 16:12

HERR2

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	D150701AA	03/11/2015 16:53	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D150701AA	03/11/2015 16:53	Daniel H Heller	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-5 Grab Groundwater

Herr Foods, Inc.

LL Sample # WW 7796534 LL Group # 1543676

Account # 00721

Project Name: Herr Foods, Inc.

Collected: 03/09/2015 13:05 by EGD

Rettew Associates

3020 Columbia Avenue

Lancaster PA 17603-4011

Submitted: 03/09/2015 17:05 Reported: 03/16/2015 16:12

HERR5

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l		ug/l	
10945	Benzene	71-43-2	1,100		10	20
10945	Ethylbenzene	100-41-4	740		10	20
10945	Isopropylbenzene	98-82-8	25	J	10	20
10945	Methyl Tertiary Butyl Ether	1634-04-4	15	J	10	20
10945	Naphthalene	91-20-3	100		20	20
10945	Toluene	108-88-3	1,900		10	20
10945	1,2,4-Trimethylbenzene	95-63-6	280		10	20
10945	1,3,5-Trimethylbenzene	108-67-8	68		10	20
10945	Xylene (Total)	1330-20-7	1,600		10	20

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	D150701AA	03/11/2015 17:16	Daniel H Heller	20
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D150701AA	03/11/2015 17:16	Daniel H Heller	20



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4 Grab Groundwater

Herr Foods, Inc.

LL Sample # WW 7796535 LL Group # 1543676 Account # 00721

Project Name: Herr Foods, Inc.

Collected: 03/09/2015 14:05 by EGD

Rettew Associates

3020 Columbia Avenue
Submitted: 03/09/2015 17:05

Lancaster PA 17603-4011

Reported: 03/16/2015 16:12

HERR4

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	580	5	10
10945	Ethylbenzene	100-41-4	2,500	50	100
10945	Isopropylbenzene	98-82-8	63	5	10
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	5	10
10945	Naphthalene	91-20-3	310	10	10
10945	Toluene	108-88-3	7,300	50	100
10945	1,2,4-Trimethylbenzene	95-63-6	1,400	5	10
10945	1,3,5-Trimethylbenzene	108-67-8	400	5	10
10945	Xylene (Total)	1330-20-7	9,900	50	100

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	D150701AA	03/11/2015 17:39	Daniel H Heller	10
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	D150701AA	03/11/2015 18:02	Daniel H Heller	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D150701AA	03/11/2015 17:39	Daniel H Heller	10
01163	GC/MS VOA Water Dren	SW-846 5030B	2	D150701AA	03/11/2015 18:02	Daniel H Heller	1.00



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3 Grab Groundwater

Herr Foods, Inc.

LL Sample # WW 7796536 LL Group # 1543676

Account # 00721

Project Name: Herr Foods, Inc.

Collected: 03/09/2015 14:45 by EGD

Rettew Associates 3020 Columbia Avenue

Lancaster PA 17603-4011

Submitted: 03/09/2015 17:05 Reported: 03/16/2015 16:12

HERR3

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l		ug/l	
10945	Benzene	71-43-2	180		25	50
10945	Ethylbenzene	100-41-4	1,100		25	50
10945	Isopropylbenzene	98-82-8	33	J	25	50
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		25	50
10945	Naphthalene	91-20-3	140	J	50	50
10945	Toluene	108-88-3	14,000		250	500
10945	1,2,4-Trimethylbenzene	95-63-6	670		25	50
10945	1,3,5-Trimethylbenzene	108-67-8	180		25	50
10945	Xylene (Total)	1330-20-7	6,500		25	50

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	D150701AA	03/11/2015 18:25	Daniel H Heller	50
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	D150701AA	03/11/2015 18:48	Daniel H Heller	500
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D150701AA	03/11/2015 18:25	Daniel H Heller	50
01163	GC/MS VOA Water Prep	SW-846 5030B	2	D150701AA	03/11/2015 18:48	Daniel H Heller	500



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: Supply Well Grab Potable Water

Herr Foods, Inc.

LL Sample # PW 7796537 LL Group # 1543676 Account # 00721

Project Name: Herr Foods, Inc.

Collected: 03/09/2015 15:30 by EGD Rettew Associates

> 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 03/09/2015 17:05

Reported: 03/16/2015 16:12

HERRS

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	D150701AA	03/11/2015 19:11	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D150701AA	03/11/2015 19:11	Daniel H Heller	1



Analysis Report

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Sample Description: Trip Blank Water

Herr Foods, Inc.

LL Sample # WW 7796538 LL Group # 1543676 Account # 00721

Project Name: Herr Foods, Inc.

Collected: 03/09/2015

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 03/09/2015 17:05 Reported: 03/16/2015 16:12

HERRT

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	D150701AA	03/11/2015 12:40	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D150701AA	03/11/2015 12:40	Daniel H Heller	1

Analysis Report

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1543676

Reported: 03/16/2015 16:12

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS <u>%REC</u>	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD <u>Max</u>
Batch number: D150701AA	Sample num	ber(s): 77	96532-7796	538				
Benzene	N.D.	0.5	ug/1	89		78-120		
Ethylbenzene	N.D.	0.5	ug/1	90		80-120		
Isopropylbenzene	N.D.	0.5	ug/1	92		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/1	89		75-120		
Naphthalene	N.D.	1.	ug/1	85		59-120		
Toluene	N.D.	0.5	$\mathrm{ug}/1$	90		80-120		
1,2,4-Trimethylbenzene	N.D.	0.5	ug/1	88		80-120		
1,3,5-Trimethylbenzene	N.D.	0.5	$\mathrm{ug}/1$	91		80-120		
Xylene (Total)	N.D.	0.5	$\mathrm{ug}/1$	92		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS <u>%REC</u>	MSD %REC	MS/MSD <u>Limits</u>	RPD	RPD <u>MAX</u>	BKG <u>Conc</u>	DUP <u>Conc</u>	DUP <u>RPD</u>	Dup RPD <u>Max</u>
Batch number: D150701AA	Sample	number(s)	: 7796532	-779653	8 UNSP	K: P798130			
Benzene	102	102	72-134	0	30				
Ethylbenzene	104	102	71-134	2	30				
Isopropylbenzene	106	105	75-128	1	30				
Methyl Tertiary Butyl Ether	99	97	72-126	2	30				
Naphthalene	99	93	52-125	6	30				
Toluene	102	101	80-125	1	30				
1,2,4-Trimethylbenzene	103	101	72-130	2	30				
1,3,5-Trimethylbenzene	107	103	65-132	4	30				
Xylene (Total)	104	103	79-125	1	30				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PA UST Unleaded + TMBs Batch number: D150701AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7796532	103	101	98	97

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1543676

Reported: 03/16/2015 16:12

TCDOTEC	Ju. 05/±0/2	010.12			
			Surrogate	e Quality	Control
7796533	102	100	100	98	
7796534	101	97	98	100	
7796535	101	99	98	100	
7796536	100	101	98	101	
7796537	102	102	99	99	
7796538	101	101	100	98	
Blank	102	101	99	99	
LCS	103	100	100	102	
MS	101	100	99	99	
MSD	101	102	100	101	
Limits:	80-116	77-113	80-113	78-113	

^{*-} Outside of specification

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.

💸 eurofins

Lancaster Laboratories Acct. # 7 Environmental

Acct. # 72 | For Eurofins Lar Group # 15

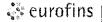
For Eurofins Lancaster Laboratories Environmental use only Group # 15 4 3 6 7 6 Sample # 2 7 9 6 5 3 2 - 3 8 Instructions on reverse side correspond with circled numbers.

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Client:	Acct, #:			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Preserv	Preservation Codes	FSC: / CO fr for
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roject Manager:	μ Ο	***************************************	_	f~∧ò ∋ke			N=HNO ₃ B≕NaOH S=H ₂ SO ₄ O≐Other
Sampler:	Quote #:] =				6) Remarks
(192							
Name of state where samples were collected:		ص ite	eto9 NPD				
2) Sample Identification	Collected	ubos sp	ter) # le:			
	Date Time	ราอ เ _ด ว	ios sW				
Mirs - (35:01 5173/6	×	×	×			
MW -2	2/2/16/12:00	`*	`~	3 ×			
mw-5	3/9/15 13:05	>		_			
MW - 4	3/2 1/5 1/4: OK	×	×	3 (
MW-3	349115 14:45	`~	×	۶ ۲			
SURUY WELL	08:51 9111.1K	X	Pringe	3 X			
٠,	3/0/18		Х	<u> </u>			
							1.11
7) Turnaround Time (TAT) Requested (please circle) Standard	(please circle) Rush	Relinguished by	K Sec	\$ 0 K	3/4/15/12/3	Received by	13,30 July 12,30
(Rush TAT is subject to laboratory approval and surcharge.)	arge.)	Relinquished by		~ ,	Sats Time	Regelved by M	7) Parte Time
Date results are needed:		Relinquished B	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	1 5 CV	2/9/16 17:05	Received by	Date Time
∃-mail address:		Relinquished by	7 A A A		Date Time	Received by	Date Time
8) Data Package Options (circle if required)							
Type I (Validation/non-CLP) Type V	Type VI (Raw Data Only)	Relinquished by	·		Date Time	Received by Or	3)9/15 16/10
Type III (Reduced non-CLP) TX TRRP-13	RP-13	<u>+</u>	EDD Required? If yes, format:	od? (Yes)	No	Relinquished by Commercial Carrier UPS FedEx Other	ercial Carrier: Other
NYSDEC Category A or B MA MCP	SP CT RCP	Site (If yes,	Site-Specific QC (MS/MSD/Dup)? Yes No (if yes, indicate QC sample and submit triplicate sample volume.)	ASD/Dup)?	Yes No	Temperature upon receipt	n receipt 🔑 👉 °C
	KAVITORIANI ORANI ORANI SANDI ORANI SINGI ORANI SINGI ORANI SINGI ORANI SINGI ORANI SINGI ORANI SINGI ORANI SI			STATE OF THE STATE OF THE STATE OF			。 《《《《·································

Eurofins Lancaster Laboratories Environmental, LLC+2425/New Holland Pike, Lancaster, PA 17601 • 717-656-2300

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0614



Sample Administration Receipt Documentation Log

Doc Log ID:

59433

Group Number(s): 1543676

Client: Rettew Assoc. Inc.

Delivery and Receipt Information

Delivery Method:

Client Drop Off

Arrival Timestamp:

03/09/2015 17:05

Number of Packages:

1

Number of Projects:

1

State/Province of Origin:

PA

Arrival Condition Summary

Shipping Container Sealed:

No

Sample IDs on COC match Containers:

Yes

Custody Seal Present:

No

Sample Date/Times match COC:

Yes

Samples Chilled:

Yes

VOA Vial Headspace ≥ 6mm:

Yes

Paperwork Enclosed:

Yes

VOA IDs (≥ 6mm):

See Below

Samples Intact:

No

Total Trip Blank Qty:

1 **HCI**

Missing Samples: Extra Samples:

No No

Trip Blank Type: Air Quality Samples Present:

No

Discrepancy in Container Qty on COC:

Nο

VOA Vial IDs (Headspace ≥ 6mm): 1 Trip Blank Vial

Unpacked by Patrick Engle (3472) at 17:13 on 03/09/2015

Samples Chilled Details

Thermometer Types:

DT = Digital (Temp. Bottle)

IR = Infrared (Surface Temp)

All Temperatures in °C.

Cooler# Thermometer ID

Corrected Temp

Therm. Type

<u>lce Type</u>

Ice Present?

Ice Container

Elevated Temp?

DT121

2.2

DT

Wet

Bagged

N

Samples Not Intact Details

Sample ID on Label

Bottle Code

Bottle Quantity Container Salvageable?

Comments

Trip Blank

40 ml glass vial (GC/MS) -

N

Received 1 trip blank broken in cooler.



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

Reporting Limit none detected Too Numerous To Count International Units micromhos/cm degrees Celsius milliequivalents gram(s) microgram(s) milliliter(s) cubic meter(s)	BMQL MPN CP Units NTU ng F Ib. kg mg L	Below Minimum Quantitation Level Most Probable Number cobalt-chloroplatinate units nephelometric turbidity units nanogram(s) degrees Fahrenheit pound(s) kilogram(s) milligram(s) liter(s)
cubic meter(s)	μL pg/L	microliter(s) picogram/liter
	none detected Too Numerous To Count International Units micromhos/cm degrees Celsius milliequivalents gram(s) microgram(s) milliliter(s)	none detected MPN Too Numerous To Count CP Units International Units NTU micromhos/cm ng degrees Celsius F milliequivalents lb. gram(s) kg microgram(s) mg milliliter(s) L cubic meter(s) μL

less than <

greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight Results printed under this heading have been adjusted for moisture content. This increases the analyte weight basis

concentration to approximate the value present in a similar sample without moisture. All other results are reported on an

as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and the < Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

April 13, 2015

Project: Herr Foods 101722001

Submittal Date: 04/01/2015 Group Number: 1549961 PO Number: 101722001 State of Sample Origin: PA

830323
050525
830324
830325
830326
830327
830328

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/.

ELECTRONIC COPY TO

Rettew Associates

Attn: Ed Dziedzic

Analysis Report

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Respectfully Submitted,

Stacy L. Butt Specialist

(717) 556-7236



Analysis Report

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Sample Description: MW-1 Grab Groundwater

Herr Foods 101722001

LL Sample # WW 7830323 LL Group # 1549961 Account # 00721

Project Name: Herr Foods 101722001

Collected: 04/01/2015 08:47 by EGD Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 04/01/2015 16:36

Reported: 04/13/2015 17:44

HER01

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	Z151001AA	04/10/2015 14:38	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151001AA	04/10/2015 14:38	Anita M Dale	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2 Grab Groundwater

Herr Foods 101722001

LL Sample # WW 7830324 LL Group # 1549961 Account # 00721

Project Name: Herr Foods 101722001

Collected: 04/01/2015 09:48 by EGD Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 04/01/2015 16:36

Reported: 04/13/2015 17:44

HER02

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	Z151001AA	04/10/2015 15:02	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151001AA	04/10/2015 15:02	Anita M Dale	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-5 Grab Groundwater

Herr Foods 101722001

LL Sample # WW 7830325 LL Group # 1549961 Account # 00721

Project Name: Herr Foods 101722001

Collected: 04/01/2015 11:03 by EGD

Rettew Associates

3020 Columbia Avenue

Lancaster PA 17603-4011

Submitted: 04/01/2015 16:36 Reported: 04/13/2015 17:44

HER05

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	1,700	10	20
10945	Ethylbenzene	100-41-4	1,300	10	20
10945	Isopropylbenzene	98-82-8	42	10	20
10945	Methyl Tertiary Butyl Ether	1634-04-4	21	10	20
10945	Naphthalene	91-20-3	190	20	20
10945	Toluene	108-88-3	3,500	10	20
10945	1,2,4-Trimethylbenzene	95-63-6	500	10	20
10945	1,3,5-Trimethylbenzene	108-67-8	130	10	20
10945	Xylene (Total)	1330-20-7	3,000	10	20

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	Z151001AA	04/10/2015 15:26	Anita M Dale	20
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151001AA	04/10/2015 15:26	Anita M Dale	20



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4 Grab Groundwater

Herr Foods 101722001

LL Sample # WW 7830326 LL Group # 1549961 Account # 00721

Project Name: Herr Foods 101722001

Collected: 04/01/2015 12:02 by EGD

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 04/01/2015 16:36

Reported: 04/13/2015 17:44

HER04

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	1,000	5	10
10945	Ethylbenzene	100-41-4	2,200	50	100
10945	Isopropylbenzene	98-82-8	67	5	10
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	5	10
10945	Naphthalene	91-20-3	310	10	10
10945	Toluene	108-88-3	9,000	50	100
10945	1,2,4-Trimethylbenzene	95-63-6	1,500	5	10
10945	1,3,5-Trimethylbenzene	108-67-8	440	5	10
10945	Xylene (Total)	1330-20-7	9,200	50	100

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	Z151001AA	04/10/2015 15:50	Anita M Dale	10
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	Z151001AA	04/10/2015 16:14	Anita M Dale	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151001AA	04/10/2015 15:50	Anita M Dale	10
01163	GC/MS VOA Water Dren	SW-846 5030B	2	Z151001AA	04/10/2015 16:14	Anita M Dale	1.00



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3 Grab Groundwater

Herr Foods 101722001

LL Sample # WW 7830327 LL Group # 1549961 Account # 00721

Project Name: Herr Foods 101722001

Collected: 04/01/2015 13:29 by EGD Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 04/01/2015 16:36

Reported: 04/13/2015 17:44

HER03

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846 8	3260B	ug/l	ug/l	
10945	Benzene	71-43-2	270	5	10
10945	Ethylbenzene	100-41-4	1,600	5	10
10945	Isopropylbenzene	98-82-8	49	5	10
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	5	10
10945	Naphthalene	91-20-3	240	10	10
10945	Toluene	108-88-3	17,000	50	100
10945	1,2,4-Trimethylbenzene	95-63-6	1,100	5	10
10945	1,3,5-Trimethylbenzene	108-67-8	310	5	10
10945	Xylene (Total)	1330-20-7	9,000	50	100

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	Z151001AA	04/10/2015 16:38	Anita M Dale	10
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	Z151001AA	04/10/2015 17:02	Anita M Dale	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151001AA	04/10/2015 16:38	Anita M Dale	10
01163	GC/MS VOA Water Pren	SW-846 5030B	2	Z151001AA	04/10/2015 17:02	Anita M Dale	100



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: Trip Blank Water

Herr Foods 101722001

LL Group # 1549961 Account # 00721

LL Sample # WW 7830328

Project Name: Herr Foods 101722001

Collected: 04/01/2015

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 04/01/2015 16:36 Reported: 04/13/2015 17:44

HERTB

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846 8	260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	Z151002AA	04/10/2015 12:26	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151002AA	04/10/2015 12:26	Anita M Dale	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Quality Control Summary

Client Name: Rettew Associates Group Number: 1549961

Reported: 04/13/2015 17:44

 ${\tt Matrix}$ QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS <u>%REC</u>	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD <u>Max</u>
Batch number: Z151001AA	Sample numbe	er(s): 783	0323-7830	327				
Benzene	N.D.	0.5	ug/l	95		78-120		
Ethylbenzene	N.D.	0.5	ug/1	95		80-120		
Isopropylbenzene	N.D.	0.5	ug/1	97		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/1	88		75-120		
Naphthalene	N.D.	1.	ug/l	93		59-120		
Toluene	N.D.	0.5	ug/l	97		80-120		
1,2,4-Trimethylbenzene	N.D.	0.5	uq/1	95		80-120		
1,3,5-Trimethylbenzene	N.D.	0.5	ug/1	96		80-120		
Xylene (Total)	N.D.	0.5	ug/1	98		80-120		
Batch number: Z151002AA	Sample numbe	er(s): 783	0328					
Benzene	N.D.	0.5	uq/1	97		78-120		
Ethylbenzene	N.D.	0.5	ug/1	99		80-120		
Isopropylbenzene	N.D.	0.5	ug/1	102		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	93		75-120		
Naphthalene	N.D.	1.	uq/1	94		59-120		
Toluene	N.D.	0.5	ug/1	102		80-120		
1,2,4-Trimethylbenzene	N.D.	0.5	ug/1	100		80-120		
1,3,5-Trimethylbenzene	N.D.	0.5	ug/1	102		80-120		
Xylene (Total)	N.D.	0.5	ug/l	102		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD <u>%REC</u>	MS/MSD <u>Limits</u>	RPD	RPD <u>MAX</u>	BKG <u>Conc</u>	DUP <u>Conc</u>	DUP <u>RPD</u>	Dup RPD <u>Max</u>
Batch number: Z151001AA	Sample	number(s	3): 7830323	3-78303	27 UNSI	PK: P829769			
Benzene	105	105	72-134	0	30				
Ethylbenzene	106	108	71-134	2	30				
Isopropylbenzene	112	111	75-128	1	30				
Methyl Tertiary Butyl Ether	91	93	72-126	2	30				
Naphthalene	99	100	52-125	1	3.0				
Toluene	107	109	80-125	1	30				
1,2,4-Trimethylbenzene	107	107	72-130	0	30				
1,3,5-Trimethylbenzene	109	111	65-132	2	30				
Xylene (Total)	109	111	79-125	1	30				
Batch number: Z151002AA	Sample	number(s	3): 783032	3 UNSPK	T: P8335	521			

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Quality Control Summary

Client Name: Rettew Associates Group Number: 1549961

Reported: 04/13/2015 17:44

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

	MS	MSD	MS/MSD		RPD	BKG	DUP	DUP	Dup RPD
<u>Analysis Name</u>	%REC	<u>%REC</u>	<u>Limits</u>	RPD	<u>MAX</u>	<u>Conc</u>	<u>Conc</u>	<u>RPD</u>	<u>Max</u>
Benzene	101	93	72-134	7	30				
Ethylbenzene	108	108	71-134	0	30				
Isopropylbenzene	112	112	75-128	0	30				
Methyl Tertiary Butyl Ether	97	97	72-126	0	30				
Naphthalene	99	101	52-125	1	30				
Toluene	112	111	80-125	0	30				
1,2,4-Trimethylbenzene	109	113	72-130	4	30				
1,3,5-Trimethylbenzene	111	113	65-132	1	30				
Xylene (Total)	113	113	79-125	0	30				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PA UST Unleaded + TMBs

Batch number: Z151001AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7830323	102	99	98	95
7830324	102	100	99	95
7830325	100	98	97	95
7830326	102	99	97	94
7830327	100	98	99	95
Blank	100	100	100	96
LCS	99	100	99	97
MS	100	100	99	98
MSD	100	101	99	97
Limits:	80-116	77-113	80-113	78-113

Analysis Name: PA UST Unleaded + TMBs

Batch number: Z151002AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene	
7830328	101	98	98	94	
Blank	101	99	99	95	
LCS	100	100	99	97	
MS	100	100	100	98	
MSD	99	101	98	96	
Limits:	80-116	77-113	80-113	78-113	

^{*-} Outside of specification

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.

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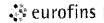
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Eurofins Lancaster Laboratories Environmental, LLQ-36854/PewHogand Pike, Lancaster, PA 17601 • 717-656-2300

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0614



Sample Administration Receipt Documentation Log

Doc Log ID:

64500

Group Number(s): \5494\

Client: Rettew Associates

Delivery and Receipt Information

Delivery Method:

Client Drop Off

Arrival Timestamp:

04/01/2015 16:36

Number of Packages:

1

Number of Projects:

<u>1</u>

State/Province of Origin:

PA

Arrival Condition Summary

Shipping Container Sealed:

No

Sample IDs on COC match Containers:

Yes

Custody Seal Present:

No

Sample Date/Times match COC:

Yes

Samples Chilled:

Yes

VOA Vial Headspace ≥ 6mm:

No

Paperwork Enclosed:

Yes

Total Trip Blank Qty:

2

Samples Intact:

Yes

Trip Blank Type:

HCI

Missing Samples:

No No

Air Quality Samples Present:

No

Extra Samples: Discrepancy in Container Qty on COC:

No

Unpacked by Patrick Engle (3472) at 16:41 on 04/01/2015

Samples Chilled Details

Thermometer Types:

DT = Digital (Temp. Bottle)

IR = Infrared (Surface Temp)

All Temperatures in °C.

Thermometer ID Cooler #

Corrected Temp

Therm. Type

Ice Type

Ice Present?

Ice Container

Elevated Temp?

DT121

3.8

DT

Wet

Y

Bagged

Ν



Lancaster Laboratories Environmental

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

Reporting Limit none detected Too Numerous To Count International Units micromhos/cm degrees Celsius milliequivalents gram(s) microgram(s) milliliter(s) cubic meter(s)	BMQL MPN CP Units NTU ng F Ib. kg mg L	Below Minimum Quantitation Level Most Probable Number cobalt-chloroplatinate units nephelometric turbidity units nanogram(s) degrees Fahrenheit pound(s) kilogram(s) milligram(s) liter(s)
cubic meter(s)	μL pg/L	microliter(s) picogram/liter
	none detected Too Numerous To Count International Units micromhos/cm degrees Celsius milliequivalents gram(s) microgram(s) milliliter(s)	none detected MPN Too Numerous To Count CP Units International Units NTU micromhos/cm ng degrees Celsius F milliequivalents lb. gram(s) kg microgram(s) mg milliliter(s) L cubic meter(s) μL

less than <

greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight Results printed under this heading have been adjusted for moisture content. This increases the analyte weight basis

concentration to approximate the value present in a similar sample without moisture. All other results are reported on an

as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and the < Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Results Report

Order ID: 5072359

Rettew - Lancaster

3020 Columbia Avenue

Project: Herr Foods

Lancaster, PA 17603

Attn: Ed Dziedzic

Regulatory ID:

Sample Number: 5072359-01 Site: MW-2 Sample ID:

Collector: DRC Collect Date: 07/09/2015 10:30 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	07/09/15	KAL	07/09/15 10:30	DRC
Static Water Level (ft)	3.21	N/A	N/A		1	07/09/15	KAL	07/09/15 10:30	DRC
Total Volume Purged (gal)	3.20	N/A	N/A		1	07/09/15	KAL	07/09/15 10:30	DRC
Total Well Depth (ft)	23.0	N/A	N/A		1	07/09/15	KAL	07/09/15 10:30	DRC
Well Diameter (in)	2.00	N/A	N/A		1	07/09/15	KAL	07/09/15 10:30	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 14:59	JMM
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 14:59	JMM
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 14:59	JMM
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 14:59	JMM
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 14:59	JMM
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 14:59	JMM
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 14:59	JMM
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 14:59	JMM
Xylenes, Total	< 1.0	µg/L	SW 846 8260B	1.0	1	07/17/15	JMM	07/17/15 14:59	JMM
Surrogate Recoveries		Results	Units	%Recovery	Met	hod		Limits (%Recov	rery)
Surrogate: Dibromofluoromethane		49.8	μg/L	99.6%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		51.4	μg/L	103%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		49.6	μg/L	99.1%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		50.0	μg/L	99.9%	SW	846 8260B		80-120	

Sample Number: 5072359-02	Site: MW-1	Sample ID:
Collector: DRC	Collect Date: 07/09/2015 11:32 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	07/09/15	KAL	07/09/15 11:32	DRC
Static Water Level (ft)	2.85	N/A	N/A		1	07/09/15	KAL	07/09/15 11:32	DRC
Total Volume Purged (gal)	3.30	N/A	N/A		1	07/09/15	KAL	07/09/15 11:32	DRC
Total Well Depth (ft)	27.0	N/A	N/A		1	07/09/15	KAL	07/09/15 11:32	DRC
Well Diameter (in)	2.00	N/A	N/A		1	07/09/15	KAL	07/09/15 11:32	DRC

Report Generated On: 07/21/2015 1:25 pm 5072359

STL_Results Revision #1.6 Effective: 07/09/2014

SUBURBAN TESTING LABS

Fax: 610-375-4090 suburbantestinglabs com Page 1 of 10



Sample Number: 5072359-02 Site: MW-1 Sample ID:

Collector: DRC Collect Date: 07/09/2015 11:32 am Sample Type: Grab

Department / Test / Parameter Result Units Method R.L. DF Prep Date By Analysis Date By

General Method (Continued)

<u>Volatiles</u>

Surrogate Recoveries

VOA, 8260, USTUnleaded									
Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 16:47	JMM
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 16:47	JMM
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 16:47	JMM
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 16:47	JMM
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 16:47	JMM
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 16:47	JMM
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 16:47	JMM
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 16:47	JMM
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	07/17/15	JMM	07/17/15 16:47	JMM

Surrogate Recoveries	Results	Units	%Recovery	Method	Limits (%Recovery)
Surrogate: Dibromofluoromethane	49.1	μg/L	98.2%	SW 846 8260B	80-120
Surrogate: 1,2-Dichloroethane-d4	50.2	μg/L	100%	SW 846 8260B	80-120
Surrogate: Toluene-d8	49.5	μg/L	98.9%	SW 846 8260B	80-120
Surrogate: Bromofluorobenzene	49.1	μg/L	98.2%	SW 846 8260B	80-120

Sample Number: 5072359-03 Site: MW-8 Sample ID:

Collector: DRC Collect Date: 07/09/2015 12:22 pm Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	07/09/15	KAL	07/09/15 12:22	DRC
Static Water Level (ft)	2.89	N/A	N/A		1	07/09/15	KAL	07/09/15 12:22	DRC
Total Volume Purged (gal)	2.50	N/A	N/A		1	07/09/15	KAL	07/09/15 12:22	DRC
Total Well Depth (ft)	20.0	N/A	N/A		1	07/09/15	KAL	07/09/15 12:22	DRC
Well Diameter (in)	2.00	N/A	N/A		1	07/09/15	KAL	07/09/15 12:22	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 17:13	JMM
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 17:13	JMM
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 17:13	JMM
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 17:13	JMM
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 17:13	JMM
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 17:13	JMM
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 17:13	JMM
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 17:13	JMM
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	07/17/15	JMM	07/17/15 17:13	JMM

Report Generated On: 07/21/2015 1:25 pm 5072359

1037F MacArthur Road, Reading, PA 19605 Phone: 800-433-6595

Results

STL_Results Revision #1.6 Effective: 07/09/2014

Units

%Recovery

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Fax: 610-375-4090 suburbantestinglabs.com

Method

Limits (%Recovery)



Site: MW-8 Sample Number: 5072359-03 Sample ID:

Collector: DRC Collect Date: 07/09/2015 12:22 pm Sample Type: Grab

Department / Test / Parameter Units Method Analysis Date Result R.L. Prep Date Ву Ву

Volatiles (Continued)

VOA, 8260, USTUnleaded (Continued)

Surrogate Recoveries (Continued)	Results	Units	%Recovery	Method	Limits (%Recovery)
Surrogate: Dibromofluoromethane	49.3	μg/L	98.6%	SW 846 8260B	80-120
Surrogate: 1,2-Dichloroethane-d4	50.5	μg/L	101%	SW 846 8260B	80-120
Surrogate: Toluene-d8	49.4	μg/L	98.8%	SW 846 8260B	80-120
Surrogate: Bromofluorobenzene	49.4	μg/L	98.8%	SW 846 8260B	80-120

Sample Number: 5072359-04 Site: MW-10 Sample ID:

Collector: DRC Collect Date: 07/09/2015 1:12 pm Sample Type: Grab

			<u> </u>						
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	07/09/15	KAL	07/09/15 13:12	DRC
Static Water Level (ft)	3.05	N/A	N/A		1	07/09/15	KAL	07/09/15 13:12	DRC
Total Volume Purged (gal)	2.40	N/A	N/A		1	07/09/15	KAL	07/09/15 13:12	DRC
Total Well Depth (ft)	20.0	N/A	N/A		1	07/09/15	KAL	07/09/15 13:12	DRC
Well Diameter (in)	2.00	N/A	N/A		1	07/09/15	KAL	07/09/15 13:12	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	1450	μg/L	SW 846 8260B	50.0	100	07/17/15	JMM	07/17/15 21:16	JMM
Ethyl Benzene	23.1	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 20:49	JMM
Isopropylbenzene	13.2	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 20:49	JMM
Methyl-t-butyl ether (MTBE)	122	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 20:49	JMM
Naphthalene	59.1	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 20:49	JMM
Toluene	11.3	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 20:49	JMM
1,2,4-Trimethylbenzene	0.7	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 20:49	JMM
1,3,5-Trimethylbenzene	8.0	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 20:49	JMM
Xylenes, Total	17.0	µg/L	SW 846 8260B	1.0	1	07/17/15	JMM	07/17/15 20:49	JMM
Surrogate Recoveries		Results	Units	%Recovery	Met	hod		Limits (%Recov	rery)
Surrogate: Dibromofluoromethane		47.0	μg/L	94.0%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		49.8	μg/L	99.5%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		50.2	μg/L	100%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		48.9	μg/L	97.8%	sw	846 8260B		80-120	

Sample Number: 5072359-05 Site: Trip Blank Sample ID:

Collector: DRC Collect Date: 07/09/2015 6:30 am Sample Type: Grab

Department / Test / Parameter Result Units Method Prep Date Ву Analysis Date

> Report Generated On: 07/21/2015 1:25 pm 5072359

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Sample Number: 5072359-05 Site: Trip Blank Sample ID:

Collector: DRC Collect Date: 07/09/2015 6:30 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 14:32	JMM
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 14:32	JMM
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 14:32	JMM
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 14:32	JMM
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 14:32	JMM
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 14:32	JMM
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 14:32	JMM
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/17/15	JMM	07/17/15 14:32	JMM
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	07/17/15	JMM	07/17/15 14:32	JMM
Surrogate Recoveries		Results	Units	%Recovery	Mei	thod		Limits (%Recov	/ery)
Surrogate: Dibromofluoromethane		50.3	μg/L	101%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		51.6	μg/L	103%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		50.0	μg/L	100%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		49.6	μg/L	99.2%	sw	846 8260B		80-120	

Data Qualifiers:

All results meet the requirements of STL's TNI (NELAC) Accredited Quality System unless otherwise noted. If your results contain any data qualifiers or comments, you should evaluate useability relative to your needs. Qualified data is generally acceptable for most data needs.

Good Schenkel

If collectors initials include "STL", samples have been collected in accordance with STL SOP SL0015.

All results reported on an As Received (Wet Weight) basis unless otherwise noted.

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Results are considered Preliminary unless report is signed by authorized representative of STL.

Reviewed and Released By:

Carol Schrenkel QA Manager

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5072359 Deborah Hannum

TAT (Circle One): Standard 24hr / 48hr / 72hr / Other (Additional charges may apply for rush TAT. If not specified, standard TAT will apply)

Order ID:

E

Address:

Phone:

Client Name:

Address:

Email: Fax:

> Contact Name: Comments:

100 at Payment / P.O. Info: Project Name:

Comments / Field Data: ----() Preservative See Codes Below ... 60 S **Boffle Type** Type 0 -> 0 Sample - 31 - 31 À Matrix 100 Bottle Quantity مديش PAUST Voidiles Test(s) Requested: \ \$2 \$3 Samplers Initials S. Š 0630 52. 17 620 Time Sampled 7916 1 7/2/15 2 Date Sampled Sample Description / Site ID: O. A. W. 1 11- 1 STL Sample

	Date:		Sample Conditions Matrix Key Bottle Type Key	Reporting Options
Keinquisned by.			S. Incollege with colors (3 / N NPW = Non-Potable Water	[] SDWA Reporting
	Time:		Solid = Raw Sludge, Dewatered sludge; soll, etc.	PWSID:
Received By:	Date:	Temp °C:	Number of containers	[]Fax
	Time:	Acceptable: Y / N	SDWA = Safe Drinking Wa	[] Émail
Relinquished By:	Date: 7 0 5	Temp °C:	Sample Type Key SDWA Sample Types A	[] Other
	Time: 44 S	Acceptable:∯/ N	Tests within tolding A B-FIGURES Within tolding A B-FIGURES Within tolding A B-FIGURES B-FIGURES S-FIGURES	[] Return a copy of this form with Report
Received in Lab By:	Date: 7, 4, 1 \$	Temp °C:	Composite C=Check S=Special	
	Time: MY	Acceptable // /M	40 mL VOA vias tree of χ 24HC = 24 Hr. Markaxmum on no in the adspace? $M_{\rm T} N$ N Composite Residence Required	
Specific from the Company of the Stands	ard Terms and Conditions unles	s otherwise specified in writing	more with STI is Standard Terms and Conditions unless otherwise specified in writing. SLF069 Rev. 1.3 Effective May 16, 2013.	

Signing this form indicates your agreement with STL's Standard Terms and Co Staded areas are for STL use only



Results Report

Order ID: 5072398

Rettew - Lancaster

3020 Columbia Avenue

Project: Herr Foods

Lancaster, PA 17603 Attn: Ed Dziedzic

Regulatory ID:

Sample Number: 5072398-01

Collector: DRC

Site: MW-9

Collect Date: 07/10/2015 8:42 am

Sample Type: Grab

Sample ID:

					-				
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	07/10/15	KAL	07/10/15 8:42	DRC
Static Water Level (ft)	2.40	N/A	N/A		1	07/10/15	KAL	07/10/15 8:42	DRC
Total Volume Purged (gal)	2.40	N/A	N/A		1	07/10/15	KAL	07/10/15 8:42	DRC
Total Well Depth (ft)	20.0	N/A	N/A		1	07/10/15	KAL	07/10/15 8:42	DRC
Well Diameter (in)	2.00	N/A	N/A		1	07/10/15	KAL	07/10/15 8:42	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	4.8	µg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 18:23	JMM
Ethyl Benzene	< 0.5	µg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 18:23	JMM
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 18:23	JMM
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 18:23	JMM
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 18:23	JMM
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 18:23	JMM
1,2,4-Trimethylbenzene	1.4	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 18:23	JMM
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 18:23	JMM
Xylenes, Total	2.3	µg/L	SW 846 8260B	1.0	1	07/14/15	JMM	07/14/15 18:23	JMM
Surrogate Recoveries		Results	Units	%Recovery	Met	hod		Limits (%Recov	rery)
Surrogate: Dibromofluoromethane		46.6	μg/L	93.1%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		51.4	μg/L	103%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		44.5	μg/L	89.0%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		45.9	μg/L	91.9%	SW	846 8260B		80-120	

Sample Number: 5072398-02	Site: IVIVV-6	Sample ID:
Collector: DRC	Collect Date: 07/10/2015 9:38 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	07/10/15	KAL	07/10/15 9:38	DRC
Static Water Level (ft)	1.90	N/A	N/A		1	07/10/15	KAL	07/10/15 9:38	DRC
Total Volume Purged (gal)	3.35	N/A	N/A		1	07/10/15	KAL	07/10/15 9:38	DRC
Total Well Depth (ft)	20.0	N/A	N/A		1	07/10/15	KAL	07/10/15 9:38	DRC
Well Diameter (in)	2.00	N/A	N/A		1	07/10/15	KAL	07/10/15 9:38	DRC

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Sample Number: 5072398-02 Site: MW-6 Sample ID:

Collector: DRC Collect Date: 07/10/2015 9:38 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date By	Analysis Date	Ву
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General Method (Continued)

<u>Volatiles</u>

VOA, 8260, USTUnleaded									
Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 18:50	JMM
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 18:50	JMM
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 18:50	JMM
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 18:50	JMM
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 18:50	JMM
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 18:50	JMM
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 18:50	JMM
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 18:50	JMM
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	07/14/15	JMM	07/14/15 18:50	JMM

Surrogate Recoveries	Results	Units	%Recovery	Method	Limits (%Recovery)
Surrogate: Dibromofluoromethane	46.8	μg/L	93.6%	SW 846 8260B	80-120
Surrogate: 1,2-Dichloroethane-d4	51.1	μg/L	102%	SW 846 8260B	80-120
Surrogate: Toluene-d8	44.0	μg/L	88.0%	SW 846 8260B	80-120
Surrogate: Bromofluorobenzene	45.3	μg/L	90.6%	SW 846 8260B	80-120

Sample Number: 5072398-03 Site: MW-5 Sample ID:

Collector: DRC Collect Date: 07/10/2015 10:22 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	07/10/15	KAL	07/10/15 10:22	DRC
Static Water Level (ft)	3.53	N/A	N/A		1	07/10/15	KAL	07/10/15 10:22	DRC
Total Volume Purged (gal)	2.70	N/A	N/A		1	07/10/15	KAL	07/10/15 10:22	DRC
Total Well Depth (ft)	27.0	N/A	N/A		1	07/10/15	KAL	07/10/15 10:22	DRC
Well Diameter (in)	2.00	N/A	N/A		1	07/10/15	KAL	07/10/15 10:22	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	2620 C1	μg/L	SW 846 8260B	25.0	50	07/15/15	JMM	07/15/15 14:40	JMM
Ethyl Benzene	1580 C1	μg/L	SW 846 8260B	25.0	50	07/15/15	JMM	07/15/15 14:40	JMM
Isopropylbenzene	58.2	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 19:17	JMM
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 19:17	JMM
Naphthalene	306	μg/L	SW 846 8260B	25.0	50	07/15/15	JMM	07/15/15 14:40	JMM
Toluene	9020 C1	μg/L	SW 846 8260B	25.0	50	07/15/15	JMM	07/15/15 14:40	JMM
1,2,4-Trimethylbenzene	1090	μg/L	SW 846 8260B	25.0	50	07/15/15	JMM	07/15/15 14:40	JMM
1,3,5-Trimethylbenzene	284	μg/L	SW 846 8260B	25.0	50	07/15/15	JMM	07/15/15 14:40	JMM
Xylenes, Total	8260	µg/L	SW 846 8260B	50.0	50	07/15/15	JMM	07/15/15 14:40	JMM

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Results

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Units

%Recovery

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Limits (%Recovery)

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Method

Surrogate Recoveries



Sample Number: 5072398-03 Site: MW-5 Sample ID:

Collector: DRC Collect Date: 07/10/2015 10:22 am Sample Type: Grab

Department / Test / Parameter Result Units Method R.L. DF Prep Date By Analysis Date By

Volatiles (Continued)

VOA, 8260, USTUnleaded (Continued)

Surrogate Recoveries (Continued)	Results	Units	%Recovery	Method	Limits (%Recovery)
Surrogate: Dibromofluoromethane	46.2	μg/L	92.3%	SW 846 8260B	80-120
Surrogate: 1,2-Dichloroethane-d4	50.0	μg/L	99.9%	SW 846 8260B	80-120
Surrogate: Toluene-d8	43.3	μg/L	86.6%	SW 846 8260B	80-120
Surrogate: Bromofluorobenzene	44.0	μg/L	88.0%	SW 846 8260B	80-120

Sample Number: 5072398-04 Site: MW-7 Sample ID:

Collector: DRC Collect Date: 07/10/2015 11:12 am Sample Type: Grab

Department / Test / Parameter	Result	Units		Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method										
Monitor Well Sampling										
Sampling Depth (ft)	8.00	N/A		N/A		1	07/10/15	KAL	07/10/15 11:12	DRC
Static Water Level (ft)	4.45	N/A		N/A		1	07/10/15	KAL	07/10/15 11:12	DRC
Total Volume Purged (gal)	3.10	N/A		N/A		1	07/10/15	KAL	07/10/15 11:12	DRC
Total Well Depth (ft)	20.0	N/A		N/A		1	07/10/15	KAL	07/10/15 11:12	DRC
Well Diameter (in)	2.00	N/A		N/A		1	07/10/15	KAL	07/10/15 11:12	DRC
<u>Volatiles</u>										
VOA, 8260, USTUnleaded										
Benzene	1820	μg/L		SW 846 8260B	25.0	50	07/17/15	JMM	07/17/15 21:43	JMM
Ethyl Benzene	1300	μg/L		SW 846 8260B	25.0	50	07/17/15	JMM	07/17/15 21:43	JMM
Isopropylbenzene	59.3	μg/L		SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 19:44	JMM
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L		SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 19:44	JMM
Naphthalene	352	μg/L		SW 846 8260B	25.0	50	07/17/15	JMM	07/17/15 21:43	JMM
Toluene	3200	μg/L		SW 846 8260B	25.0	50	07/17/15	JMM	07/17/15 21:43	JMM
1,2,4-Trimethylbenzene	1060	μg/L		SW 846 8260B	25.0	50	07/17/15	JMM	07/17/15 21:43	JMM
1,3,5-Trimethylbenzene	275	μg/L		SW 846 8260B	25.0	50	07/17/15	JMM	07/17/15 21:43	JMM
Xylenes, Total	7940	μg/L		SW 846 8260B	50.0	50	07/17/15	JMM	07/17/15 21:43	JMM
Surrogate Recoveries		Results		Units	%Recovery	Met	hod		Limits (%Recov	rery)
Surrogate: Dibromofluoromethane		38.6	V	μg/L	77.1%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		44.5		μg/L	89.0%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		42.9		μg/L	85.8%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		42.4		μg/L	84.7%	SW	846 8260B		80-120	

Sample Number: 5072398-05 Site: MW-3 Sample ID:

Collector: DRC Collect Date: 07/10/2015 12:02 pm Sample Type: Grab

Department / Test / Parameter Result Units Method R.L. DF Prep Date By Analysis Date By

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Site: MW-3 Sample Number: 5072398-05 Sample ID:

Collector: DRC Collect Date: 07/10/2015 12:02 pm Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	11.0	N/A	N/A		1	07/10/15	KAL	07/10/15 12:02	DRC
Static Water Level (ft)	3.61	N/A	N/A		1	07/10/15	KAL	07/10/15 12:02	DRC
Total Volume Purged (gal)	3.40	N/A	N/A		1	07/10/15	KAL	07/10/15 12:02	DRC
Total Well Depth (ft)	25.0	N/A	N/A		1	07/10/15	KAL	07/10/15 12:02	DRC
Well Diameter (in)	2.00	N/A	N/A		1	07/10/15	KAL	07/10/15 12:02	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	141	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 20:11	JMM
Ethyl Benzene	1400	μg/L	SW 846 8260B	25.0	50	07/17/15	JMM	07/17/15 22:10	JMM
Isopropylbenzene	50.8	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 20:11	JMM
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 20:11	JMM
Naphthalene	254	μg/L	SW 846 8260B	25.0	50	07/17/15	JMM	07/17/15 22:10	JMM
Toluene	11100 E	μg/L	SW 846 8260B	25.0	50	07/17/15	JMM	07/17/15 22:10	JMM
1,2,4-Trimethylbenzene	866	μg/L	SW 846 8260B	25.0	50	07/17/15	JMM	07/17/15 22:10	JMM
1,3,5-Trimethylbenzene	252	μg/L	SW 846 8260B	25.0	50	07/17/15	JMM	07/17/15 22:10	JMM
Xylenes, Total	6840	μg/L	SW 846 8260B	50.0	50	07/17/15	JMM	07/17/15 22:10	JMM
Surrogate Recoveries		Results	Units	%Recovery	Met	thod		Limits (%Recov	very)
Surrogate: Dibromofluoromethane		43.4	μg/L	86.8%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		47.0	μg/L	94.1%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		42.0	μg/L	83.9%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		43.6	μg/L	87.3%	SW	846 8260B		80-120	

Sample Number: 5072398-06 Site: MW-4 Sample ID:

Collector: DRC	Collec	t Date: 07/10/2	015 12:48 pm	Sample Type: Grab						
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву	
General Method										
Monitor Well Sampling										
Sampling Depth (ft)	10.0	N/A	N/A		1	07/10/15	KAL	07/10/15 12:48	DRC	
Static Water Level (ft)	4.31	N/A	N/A		1	07/10/15	KAL	07/10/15 12:48	DRC	
Total Volume Purged (gal)	2.60	N/A	N/A		1	07/10/15	KAL	07/10/15 12:48	DRC	
Total Well Depth (ft)	19.0	N/A	N/A		1	07/10/15	KAL	07/10/15 12:48	DRC	
Well Diameter (in)	2.00	N/A	N/A		1	07/10/15	KAL	07/10/15 12:48	DRC	
<u>Volatiles</u>										
VOA, 8260, USTUnleaded										
Benzene	237	μg/L	SW 846 8260B	25.0	50	07/15/15	JMM	07/15/15 16:02	JMM	
Ethyl Benzene	1330	μg/L	SW 846 8260B	25.0	50	07/15/15	JMM	07/15/15 16:02	JMM	
Isopropylbenzene	65.8	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 20:38	JMM	
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 20:38	JMM	
Naphthalene	346	μg/L	SW 846 8260B	25.0	50	07/15/15	JMM	07/15/15 16:02	JMM	

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> STL_Results Revision #1.6 Effective: 07/09/2014

> > SUBURBAN TESTING LABS



Site: MW-4 Sample Number: 5072398-06 Sample ID:

Collector: DRC Collect Date: 07/10/2015 12:48 pm Sample Type: Grab

Department / Test / Parameter	Result	Units		Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
Volatiles (Continued)										
VOA, 8260, USTUnleaded (Continued)										
Toluene	2280	μg/L		SW 846 8260B	25.0	50	07/15/15	JMM	07/15/15 16:02	JMM
1,2,4-Trimethylbenzene	1550	μg/L		SW 846 8260B	25.0	50	07/15/15	JMM	07/15/15 16:02	JMM
1,3,5-Trimethylbenzene	406	μg/L		SW 846 8260B	25.0	50	07/15/15	JMM	07/15/15 16:02	JMM
Xylenes, Total	7320	μg/L		SW 846 8260B	50.0	50	07/15/15	JMM	07/15/15 16:02	JMM
Surrogate Recoveries		Results		Units	%Recovery	Ме	thod		Limits (%Recov	/ery)
Surrogate: Dibromofluoromethane		37.1	٧	μg/L	74.3%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		45.0		μg/L	89.9%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		40.0		μg/L	80.0%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		42.7		μg/L	85.5%	SW	846 8260B		80-120	

Sample Number: 5072398-07 Site: Trip Blank Sample ID:

Collector: DRC Collect Date: 07/09/2015 6:30 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву	
√olatiles										
VOA, 8260, USTUnleaded										
Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 17:56	JMM	
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 17:56	JMM	
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 17:56	JMM	
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 17:56	JMM	
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 17:56	JMM	
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 17:56	JMM	
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 17:56	JMM	
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	07/14/15	JMM	07/14/15 17:56	JMM	
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	07/14/15	JMM	07/14/15 17:56	JMM	
Surrogate Recoveries		Results	Units	%Recovery	Method			Limits (%Recov	/ery)	
Surrogate: Dibromofluoromethane		47.0	μg/L	94.0%	SW	846 8260B		80-120		
Surrogate: 1,2-Dichloroethane-d4		50.8	μg/L	102%	SW	846 8260B		80-120		
Surrogate: Toluene-d8		44.3	μg/L	88.6%	SW 846 8260B			80-120		
Surrogate: Bromofluorobenzene		46.0	μg/L	92.1%	SW 846 8260B			80-120		

Data Qualifiers:

C1 The CCV for this analyte was below acceptance criteria.

Ε The concentration exceeds the calibration range and has greater uncertainty.

٧ The surrogate associated with this sample was not within the established acceptance criteria.

> Report Generated On: 07/20/2015 4:51 pm 5072398

> > STL_Results Revision #1.6 Effective: 07/09/2014

> > > SUBURBAN TESTING LABS

1037F MacArthur Road, Reading, PA 19605 Phone: 800-433-6595 Fax: 610-375-4090 suburbantestinglabs Page 5 of 14



All results meet the requirements of STL's TNI (NELAC) Accredited Quality System unless otherwise noted. If your results contain any data qualifiers or comments, you should evaluate useability relative to your needs. Qualified data is generally acceptable for most data needs.

and Schenkel

If collectors initials include "STL", samples have been collected in accordance with STL SOP SL0015.

All results reported on an As Received (Wet Weight) basis unless otherwise noted.

This laboratory report may not be reproduced, except in full, without the written approval of STL.

Results are considered Preliminary unless report is signed by authorized representative of STL.

Reviewed and Released By:

Carol Schrenkel QA Manager

Report Generated On: 07/20/2015 4:51 pm

STL_Results Revision #1.6

5072398

Effective: 07/09/2014

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Client Name: Rether

Address:

Contact Name: Comments:

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	. / 48hr	t specified,
	24hr /	TAT. If no
	Standard	apply for rush
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/ 72hr / (standard TAT
24hr / 48hr	ss may apply for rush TAT. If not specified, standard TAT
Standard	apply for rush
ne):	s may

Order ID:

Project Name: The Forst 5	Address:		Payment / P.O. Info:
	Phone:	Fax:	Email:

See Codes Below	Bottle Quantity Matrix Sample Type Bottle Type Preservative Preservative Omments / Field		and the second s			And a survey of		2 9 9 8	
	Test(s) Requested:	PA UST Volatiles	* New York	و را ماه د المحمد		71	>	PAWST Volatika	
	Samplers Initials	N. D.R.	- DRC	A ST SERVE TO SERVE T	lation to Tigorophicar .	or was an agency of the			
	bəlqms2 əmiT	25805	0938	1020	r V	1202	S. J.	06%	
	Date Sampled	2.0.7	#=>34500	در ما معاملات معاملات	in na Brancia de Caración de C	ge Francis spraget of	->	2-6-7	
	Sample Description / Site ID:		WW-6	MW-5	111111-7	MW-3		Tro Sank	

Relinquished By:	Date:		Sample Conditions Bottle Type Key	Reporting Options
	Time:] SDWA Reporting
Received By:	Date:		Solid = Raw Sludge, Dewalered sludge, soif etc. G = Glass PWS Number of control of a Other O = Other PWS	PWSID
		Temp °C:	? 1 V / N PW = Polable Water (not for SDWA compilance). Preservative Key] Fax
	Time:	Acceptable: Y / N	-] Email
Relinquished, By:	Date: 7 - (0 - (5)	Temp °C:	Type Key SDWA Sample Types Thiosulfate Type Key SDWA Sample Types A=Ascorbio Acid	Other
	Time: 4/2	Acceptable (🕅 N	Debetrbutton Harrivo, Emergy Point Can HGI	Return a copy of this form with
Received in Lab By:	Date: 7-10-15	Temp °C;		Nepda
	Time: 1470	Acceptable: 1/3/ N	40 ml. VOA vais free of 1 24HC = 24 Hr. Mi-Maxmum NA = None headspace?	

Signing this form indicates your agreement with STL's Standard Terms and Conditions unless otherwise specified in writing. SLF089 Rev. 1.3 Effective May 16, 2013. Staded areas are for STL use only.



Results Report

Order ID: 5100575

Rettew - Lancaster

3020 Columbia Avenue Lancaster, PA 17603

Project: Herr Foods- Monitoring Wells

Attn: Ed Dziedzic

Regulatory ID:

Sample Number: 5100575-01

Site: MW 1

Sample ID:

Collector: DRC

Collect Date: 10/06/2015 10:22 am

Sample Type: Grab

Concolor. Bive	157.50	vocana wiatochida atahadisti	and county (DATAS TITLE) (TO D. 1.5)		non Errottal 1	урс. Спав			
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	10/06/15	KAL	10/06/15 10:22	DRC
Static Water Level (ft)	4.79	N/A	N/A		1	10/06/15	KAL	10/06/15 10:22	DRC
Total Volume Purged (gal)	2.50	N/A	N/A		1	10/06/15	KAL	10/06/15 10:22	DRC
Total Well Depth (ft)	27.0	N/A	N/A		1	10/06/15	KAL	10/06/15 10:22	DRC
Well Diameter (in)	2.00	N/A	N/A		1	10/06/15	KAL	10/06/15 10:22	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 12:38	DMP
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 12:38	DMP
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 12:38	DMP
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 12:38	DMP
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 12:38	DMP
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 12:38	DMP
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 12:38	DMP
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 12:38	DMP
Xylenes, Total	< 1.0	µg/L	SW 846 8260B	1.0	1	10/08/15	DMP	10/08/15 12:38	DMP
Surrogate Recoveries		Results	Units	%Recovery	Ме	thod		Limits (%Rec	overy)
Surrogate: Dibromofluoromethane		50.5	μg/L	101%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		49.6	µg/L	99.2%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		49.3	μg/L	98.6%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		46.5	μg/L	93.0%	SW	846 8260B		80-120	

Sample Number: 5100575-02 Site: MW 2 Sample ID:

Collector: DRC Collect Date: 10/06/2015 9:42 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	10/06/15	KAL	10/06/15 9:42	DRC

N/A

Report Generated On: 10/16/2015 4:16 pm 5100575

5.62

STL_Results Revision #1.6 Effective: 07/09/2014

N/A



10/06/15



DRC

Static Water Level (ft)

KAL

10/06/15 9:42



Sample Number: 5100575-02 Site: MW 2 Sample ID:

Collector: DRC Collect Date: 10/06/2015 9:42 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method (Continued)									
Monitor Well Sampling (Continued)									
Total Volume Purged (gal)	2.50	N/A	N/A		1	10/06/15	KAL	10/06/15 9:42	DRC
Total Well Depth (ft)	23.0	N/A	N/A		1	10/06/15	KAL	10/06/15 9:42	DRC
Well Diameter (in)	2.00	N/A	N/A		1	10/06/15	KAL	10/06/15 9:42	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 13:06	DMP
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 13:06	DMP
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 13:06	DMP
Methyl-t-butyl ether (MTBE)	< 0.5 D1	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 13:06	DMP
Naphthalene	< 0.5 D1	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 13:06	DMP
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 13:06	DMP
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 13:06	DMP
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 13:06	DMP
Xylenes, Total	< 1.0 D1	μg/L	SW 846 8260B	1.0	1	10/08/15	DMP	10/08/15 13:06	DMP
Surrogate Recoveries		Results	Units	%Recovery	Met	hod		Limits (%Reco	overy)
Surrogate: Dibromofluoromethane		50.2	μg/L	100%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		49.0	μg/L	98.0%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		49.8	μg/L	99.6%	SW	SW 846 8260B		80-120	
Surrogate: Bromofluorobenzene		46.7	μg/L	93.5%	SW	846 8260B		80-120	

Sample Number: 5100575-03 Site: MW 3 Sample ID:

Collector: DRC Collect Date: 10/07/2015 10:18 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	11.0	N/A	N/A		1	10/07/15	KAL	10/07/15 10:18	DRC
Static Water Level (ft)	5.34	N/A	N/A		1	10/07/15	KAL	10/07/15 10:18	DRC
Total Volume Purged (gal)	2.70	N/A	N/A		1	10/07/15	KAL	10/07/15 10:18	DRC
Total Well Depth (ft)	25.0	N/A	N/A		1	10/07/15	KAL	10/07/15 10:18	DRC
Well Diameter (in)	2.00	N/A	N/A		1	10/07/15	KAL	10/07/15 10:18	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	42.7	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 18:19	DMP
Ethyl Benzene	430	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 18:19	DMP
Isopropylbenzene	21.5	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 18:19	DMP
Methyl-t-butyl ether (MTBE)	< 5.0	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 18:19	DMP

Report Generated On: 10/16/2015 4:16 pm 5100575







Sample Number: 5100575-03 Site: MW 3 Sample ID:

Collector: DRC Sample Type: Grab Collect Date: 10/07/2015 10:18 am

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
Volatiles (Continued)									
VOA, 8260, USTUnleaded (Continued)									
Naphthalene	88.7	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 18:19	DMP
Toluene	3890	μg/L	SW 846 8260B	50.0	100	10/08/15	DMP	10/08/15 16:25	DMP
1,2,4-Trimethylbenzene	292	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 18:19	DMP
1,3,5-Trimethylbenzene	111	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 18:19	DMP
Xylenes, Total	1610	μg/L	SW 846 8260B	10.0	10	10/12/15	DMP	10/12/15 18:19	DMP
Surrogate Recoveries		Results	Units	%Recovery	Method			Limits (%Recovery)	
Surrogate: Dibromofluoromethane		48.8	μg/L	97.5%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		47.1	μg/L	94.2%	SW	SW 846 8260B		80-120	
Surrogate: Toluene-d8		49.0	μg/L	97.9%	SW 846 8260B			80-120	
Surrogate: Bromofluorobenzene		48.4	μg/L	96.7%	SW 846 8260B			80-120	

Sample Number: 5100575-04 Site: MW 4 Sample ID:

Collector: DRC Collect Date: 10/07/2015 11:12 am Sample Type: Grab

						, 1			
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	10/07/15	KAL	10/07/15 11:12	DRC
Static Water Level (ft)	6.16	N/A	N/A		1	10/07/15	KAL	10/07/15 11:12	DRC
Total Volume Purged (gal)	3.30	N/A	N/A		1	10/07/15	KAL	10/07/15 11:12	DRC
Total Well Depth (ft)	19.0	N/A	N/A		1	10/07/15	KAL	10/07/15 11:12	DRC
Well Diameter (in)	2.00	N/A	N/A		1	10/07/15	KAL	10/07/15 11:12	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	1760	μg/L	SW 846 8260B	50.0	100	10/12/15	DMP	10/12/15 17:51	DMP
Ethyl Benzene	1600	μg/L	SW 846 8260B	50.0	100	10/12/15	DMP	10/12/15 17:51	DMP
Isopropylbenzene	68.1	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 15:27	DMP
Methyl-t-butyl ether (MTBE)	2.1	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 15:27	DMP
Naphthalene	199	μg/L	SW 846 8260B	50.0	100	10/12/15	DMP	10/12/15 17:51	DMP
Toluene	8610	μg/L	SW 846 8260B	50.0	100	10/12/15	DMP	10/12/15 17:51	DMP
1,2,4-Trimethylbenzene	857	μg/L	SW 846 8260B	50.0	100	10/12/15	DMP	10/12/15 17:51	DMP
1,3,5-Trimethylbenzene	228	μg/L	SW 846 8260B	50.0	100	10/12/15	DMP	10/12/15 17:51	DMP
Xylenes, Total	6180	μg/L	SW 846 8260B	100	100	10/12/15	DMP	10/12/15 17:51	DMP
Surrogate Recoveries		Results	Units	%Recovery	Met	hod		Limits (%Reco	overy)
Surrogate: Dibromofluoromethane		40.0	μg/L	79.9%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		46.8	μg/L	93.5%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		43.9	μg/L	87.8%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		56.1	μg/L	112%	SW	846 8260B		80-120	

Report Generated On: 10/16/2015 4:16 pm 5100575







Site: MW 4 Sample Number: 5100575-04 Sample ID:

Collector: DRC Collect Date: 10/07/2015 11:12 am Sample Type: Grab

Department / Test / Parameter Ву Result Units Method R.L. Prep Date Analysis Date Ву

Volatiles (Continued)

Sample Number: 5100575-05 Site: MW 5 Sample ID:

Collector: DRC Collect Date: 10/07/2015 8:38 am Sample Type: Grab

Collector. DRC	Colle	ect Date. 10/07/2	015 6.36 am	Jai	пре	уре. Стар			
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	10/07/15	KAL	10/07/15 8:38	DRC
Static Water Level (ft)	4.94	N/A	N/A		1	10/07/15	KAL	10/07/15 8:38	DRC
Total Volume Purged (gal)	2.90	N/A	N/A		1	10/07/15	KAL	10/07/15 8:38	DRC
Total Well Depth (ft)	27.0	N/A	N/A		1	10/07/15	KAL	10/07/15 8:38	DRC
Well Diameter (in)	2.00	N/A	N/A		1	10/07/15	KAL	10/07/15 8:38	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	1040	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 18:48	DMP
Ethyl Benzene	694	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 18:48	DMP
Isopropylbenzene	21.7	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 18:48	DMP
Methyl-t-butyl ether (MTBE)	9.0	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 18:48	DMP
Naphthalene	86.8	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 18:48	DMP
Toluene	1550	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 18:48	DMP
1,2,4-Trimethylbenzene	299	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 18:48	DMP
1,3,5-Trimethylbenzene	77.3	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 18:48	DMP
Xylenes, Total	1650	μg/L	SW 846 8260B	10.0	10	10/12/15	DMP	10/12/15 18:48	DMP
Surrogate Recoveries		Results	Units	%Recovery	Met	hod		Limits (%Reco	overy)
Surrogate: Dibromofluoromethane		48.4	μg/L	96.8%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		46.2	μg/L	92.4%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		50.0	μg/L	100%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		49.2	μg/L	98.4%	SW	846 8260B		80-120	

Sample Number: 5100575-06 Site: TRIP BLANK DAY 1 OF SAMPLING Sample ID:

Collector: DRC Collect Date: 10/05/2015 3:20 pm Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 11:41	DMP
Ethyl Benzene	< 0.5	ua/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 11:41	DMP

SW 846 8260B

0.5

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< 0.5

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μg/L





DMP

Isopropylbenzene

10/08/15 DMP 10/08/15 11:41



Sample Number: 5100575-06 Site: TRIP BLANK DAY 1 OF SAMPLING Sample ID:

Collector: DRC Collect Date: 10/05/2015 3:20 pm Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
Volatiles (Continued)									
VOA, 8260, USTUnleaded (Continued)									
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 11:41	DMP
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 11:41	DMP
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 11:41	DMP
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 11:41	DMP
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 11:41	DMP
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	10/08/15	DMP	10/08/15 11:41	DMP
Surrogate Recoveries		Results	Units	%Recovery	Met	hod		Limits (%Reco	overy)
Surrogate: Dibromofluoromethane		48.7	μg/L	97.4%	SW	846 8260B		80-120]
Surrogate: 1,2-Dichloroethane-d4		47.8	μg/L	95.7%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		49.6	μg/L	99.2%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		47.3	μg/L	94.6%	SW	846 8260B		80-120	

Sample Number: 5100575-07 Site: MW 6 Sample ID:

Collector: DRC Collect Date: 10/06/2015 1:05 pm Sample Type: Grab

Collector: DRC	Colle	ect Date: 10/06/2	015 1:05 pm	Sai	mple I	ype: Grab			
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	10/06/15	KAL	10/06/15 13:08	DRC
Static Water Level (ft)	3.42	N/A	N/A		1	10/06/15	KAL	10/06/15 13:08	DRC
Total Volume Purged (gal)	2.60	N/A	N/A		1	10/06/15	KAL	10/06/15 13:08	DRC
Total Well Depth (ft)	20.0	N/A	N/A		1	10/06/15	KAL	10/06/15 13:08	DRC
Well Diameter (in)	2.00	N/A	N/A		1	10/06/15	KAL	10/06/15 13:08	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	< 0.5	μ g/ L	SW 846 8260B	0.5	1	10/12/15	DMP	10/12/15 17:22	DMP
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/12/15	DMP	10/12/15 17:22	DMP
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/12/15	DMP	10/12/15 17:22	DMP
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	10/12/15	DMP	10/12/15 17:22	DMP
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/12/15	DMP	10/12/15 17:22	DMP
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/12/15	DMP	10/12/15 17:22	DMP
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/12/15	DMP	10/12/15 17:22	DMP
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/12/15	DMP	10/12/15 17:22	DMP
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	10/12/15	DMP	10/12/15 17:22	DMP
Surrogate Recoveries		Results	Units	%Recovery	Mei	thod		Limits (%Reco	overy)
Surrogate: Dibromofluoromethane		47.8	μ g /L	95.6%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		45.9	μg/L	91.8%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		49.4	μg/L	98.8%	SW	846 8260B		80-120	

Report Generated On: 10/16/2015 4:16 pm 5100575

STL_Results Revision #1.6 Effective: 07/09/2014





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Fax: 610-375-4090 suburbantestinglabs.com



Sample Number: 5100575-07 Site: MW 6 Sample ID:

Collector: DRC Collect Date: 10/06/2015 1:05 pm Sample Type: Grab

Department / Test / Parameter Result Units Method R.L. Prep Date Ву Analysis Date Ву

Volatiles (Continued)

VOA, 8260, USTUnleaded (Continued)

Surrogate Recoveries (Continued) Results Units Method Limits (%Recovery) %Recovery Surrogate: Bromofluorobenzene 48.2 96.4% SW 846 8260B 80-120 μg/L

Sample Number: 5100575-08 Site: MW 7 Sample ID:

Collect Date: 10/07/2015 9:32 am Sample Type: Grab Collector: DRC

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	8.00	N/A	N/A		1	10/07/15	KAL	10/07/15 9:32	DRC
Static Water Level (ft)	6.01	N/A	N/A		1	10/07/15	KAL	10/07/15 9:32	DRC
Total Volume Purged (gal)	3.66	N/A	N/A		1	10/07/15	KAL	10/07/15 9:32	DRC
Total Well Depth (ft)	20.0	N/A	N/A		1	10/07/15	KAL	10/07/15 9:32	DRC
Well Diameter (in)	2.00	N/A	N/A		1	10/07/15	KAL	10/07/15 9:32	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	514	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 19:17	DMP
Ethyl Benzene	728	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 19:17	DMP
Isopropylbenzene	53.4	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 19:17	DMP
Methyl-t-butyl ether (MTBE)	< 5.0	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 19:17	DMP
Naphthalene	240	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 19:17	DMP
Toluene	741	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 19:17	DMP
1,2,4-Trimethylbenzene	622	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 19:17	DMP
1,3,5-Trimethylbenzene	169	μg/L	SW 846 8260B	5.0	10	10/12/15	DMP	10/12/15 19:17	DMP
Xylenes, Total	3050	µg/L	SW 846 8260B	10.0	10	10/12/15	DMP	10/12/15 19:17	DMP
Surrogate Recoveries		Results	Units	%Recovery	Met	hod		Limits (%Reco	overy)
Surrogate: Dibromofluoromethane		48.1	μg/L	96.1%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		46.1	μg/L	92.2%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		49.6	μg/L	99.1%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		49.2	μg/L	98.4%	SW	846 8260B		80-120	

Sample Number: 5100575-09 Site: MW 8 Sample ID:

Collector: DRC Collect Date: 10/06/2015 11:02 am Sample Type: Grab

Department / Test / Parameter Result Units Method R.L. Prep Date Ву Analysis Date Ву

General Method

Report Generated On: 10/16/2015 4:16 pm 5100575

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Sample Number: 5100575-09 Site: MW 8 Sample ID:

Collector: DRC Collect Date: 10/06/2015 11:02 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method (Continued)									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	10/06/15	KAL	10/06/15 11:02	DRC
Static Water Level (ft)	3.84	N/A	N/A		1	10/06/15	KAL	10/06/15 11:02	DRC
Total Volume Purged (gal)	2.60	N/A	N/A		1	10/06/15	KAL	10/06/15 11:02	DRC
Total Well Depth (ft)	20.0	N/A	N/A		1	10/06/15	KAL	10/06/15 11:02	DRC
Well Diameter (in)	2.00	N/A	N/A		1	10/06/15	KAL	10/06/15 11:02	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 14:31	DMP
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 14:31	DMP
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 14:31	DMP
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 14:31	DMP
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 14:31	DMP
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 14:31	DMP
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 14:31	DMP
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 14:31	DMP
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	10/08/15	DMP	10/08/15 14:31	DMP
Surrogate Recoveries		Results	Units	%Recovery	Ме	thod		Limits (%Reco	overy)
Surrogate: Dibromofluoromethane		50.0	µg/L	100%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		49.7	μg/L	99.3%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		49.4	μg/L	98.9%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		47.1	µg/L	94.2%	SW	846 8260B		80-120	

Sample Number: 5100575-10 Site: MW 9 Sample ID:

Collector: DRC Collect Date: 10/06/2015 12:28 pm Sample Type: Grab

Collector. BING	Collec	1 Date: 10/00/20	715 12.26 pm	٠.	ипріе і	уре. Стар			
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	10/06/15	KAL	10/06/15 12:28	DRC
Static Water Level (ft)	4.16	N/A	N/A		1	10/06/15	KAL	10/06/15 12:28	DRC
Total Volume Purged (gal)	3.20	N/A	N/A		1	10/06/15	KAL	10/06/15 12:28	DRC
Total Well Depth (ft)	20.0	N/A	N/A		1	10/06/15	KAL	10/06/15 12:28	DRC
Well Diameter (in)	2.00	N/A	N/A		1	10/06/15	KAL	10/06/15 12:28	DRC
Volatiles									
VOA, 8260, USTUnleaded									
Benzene	2.6	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 14:59	DMP
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 14:59	DMP

Report Generated On: 10/16/2015 4:16 pm 5100575







Sample Number: 5100575-10 Site: MW 9 Sample ID:

Sample Type: Grab Collector: DRC Collect Date: 10/06/2015 12:28 pm

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
Volatiles (Continued)									
VOA, 8260, USTUnleaded (Continued)									
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 14:59	DMP
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 14:59	DMP
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 14:59	DMP
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 14:59	DMP
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 14:59	DMP
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 14:59	DMP
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	10/08/15	DMP	10/08/15 14:59	DMP
Surrogate Recoveries		Results	Units	%Recovery	Mei	thod		Limits (%Reco	overy)
Surrogate: Dibromofluoromethane		50.1	μg/L	100%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		50.2	μg/L	100%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		50.5	μg/L	101%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		46.6	μg/L	93.1%	SW	846 8260B		80-120	

Sample Number: 5100575-11 Site: MW 10 Sample ID:

Collector: DRC Collect Date: 10/06/2015 11:42 am Sample Type: Grab

Collector: DRC	Coll	ect Date: 10/06/2	015 11:42 am	Sa	mple T	ype: Grab			
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	10/06/15	KAL	10/06/15 11:42	DRC
Static Water Level (ft)	4.88	N/A	N/A		1	10/06/15	KAL	10/06/15 11:42	DRC
Total Volume Purged (gal)	2.60	N/A	N/A		1	10/06/15	KAL	10/06/15 11:42	DRC
Total Well Depth (ft)	20.0	N/A	N/A		1	10/06/15	KAL	10/06/15 11:42	DRC
Well Diameter (in)	2.00	N/A	N/A		1	10/06/15	KAL	10/06/15 11:42	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	2040	μg/L	SW 846 8260B	50.0	100	10/08/15	DMP	10/08/15 18:20	DMP
Ethyl Benzene	< 50.0	μg/L	SW 846 8260B	50.0	100	10/08/15	DMP	10/08/15 18:20	DMP
Isopropylbenzene	< 50.0	μg/L	SW 846 8260B	50.0	100	10/08/15	DMP	10/08/15 18:20	DMP
Methyl-t-butyl ether (MTBE)	91.0	μg/L	SW 846 8260B	50.0	100	10/08/15	DMP	10/08/15 18:20	DMP
Naphthalene	< 50.0	μg/L	SW 846 8260B	50.0	100	10/08/15	DMP	10/08/15 18:20	DMP
Toluene	< 50.0	μg/L	SW 846 8260B	50.0	100	10/08/15	DMP	10/08/15 18:20	DMP
1,2,4-Trimethylbenzene	< 50.0	μg/L	SW 846 8260B	50.0	100	10/08/15	DMP	10/08/15 18:20	DMP
1,3,5-Trimethylbenzene	< 50.0	μg/L	SW 846 8260B	50.0	100	10/08/15	DMP	10/08/15 18:20	DMP
Xylenes, Total	< 100	µg/L	SW 846 8260B	100	100	10/08/15	DMP	10/08/15 18:20	DMP
Surrogate Recoveries		Results	Units	%Recovery	Met	hod		Limits (%Reco	overy)
Surrogate: Dibromofluoromethane		48.6	μg/L	97.3%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		49.1	μg/L	98.2%	SW	846 8260B		80-120	

Report Generated On: 10/16/2015 4:16 pm 5100575







Sample Number: 5100575-11 Site: MW 10 Sample ID:

Collector: DRC Collect Date: 10/06/2015 11:42 am Sample Type: Grab

Department / Test / Parameter Result Units Method R.L. Prep Date Ву **Analysis Date** Ву

Volatiles (Continued)

VOA, 8260, USTUnleaded (Continued)

Surrogate Recoveries (Continued) Results Units Method Limits (%Recovery) %Recovery 48.8 μg/L 97.6% SW 846 8260B 80-120 Surrogate: Toluene-d8 46.6 SW 846 8260B 80-120 Surrogate: Bromofluorobenzene 93.2% µg/L

Sample Number: 5100575-12 Site: TRIP BLANK DAY 2 OF SAMPLING Sample ID:

Collector: DRC Collect Date: 10/05/2015 3:22 pm Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
<u>/olatiles</u>									
OA, 8260, USTUnleaded									
Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 12:10	DMF
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 12:10	DMF
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 12:10	DMF
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 12:10	DMF
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 12:10	DMF
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 12:10	DMF
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 12:10	DMF
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	10/08/15	DMP	10/08/15 12:10	DMF
Xylenes, Total	< 1.0	µg/L	SW 846 8260B	1.0	1	10/08/15	DMP	10/08/15 12:10	DMF
Surrogate Recoveries		Results	Units	%Recovery	Met	hod		Limits (%Reco	overy)
Surrogate: Dibromofluoromethane		49.6	μg/L	99.2%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		48.1	μg/L	96.3%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		49.2	μg/L	98.4%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		46.7	μg/L	93.4%	SW	846 8260B		80-120	

Data Qualifiers:

D1 The Duplicate for this sample was not within the established acceptance criteria.

> Report Generated On: 10/16/2015 4:16 pm 5100575







All results meet the requirements of STL's TNI (NELAC) Accredited Quality System unless otherwise noted. If your results contain any data qualifiers or comments, you should evaluate useability relative to your needs.

Deborat M. Hansum

If collectors initials include "STL", samples have been collected in accordance with STL SOP SL0015.

All results reported on an As Received (Wet Weight) basis unless otherwise noted.

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Results are considered Preliminary unless report is signed by authorized representative of STL.

Reviewed and Released By:

Deborah Hannum Project Manager

> Report Generated On: 10/16/2015 4:16 pm 5100575

> > Effective: 07/09/2014 STL_Results Revision #1.6



Chain of Custody Record

1037F MacArthur Road, Reading, PA 19605 Phone: 610-375-8378 - Fax: 610-375-4090 - suburbantestinglabs.com

TAT (Circle One): Standard - 24hr - 48hr - 72hr - Other (Additional charges may apply for rush TAT. If not specified, standard TAT will apply.)

5100575 ORDER ID:

Page 11 of 27

Rettew - Lancaster 3020 Columbia Avenue Lancaster, PA 17603

Client Name / Address:

Client Project Manager: Ed Dziedzic

Phone: (717) 394-1063 Fax:

Herr Foods- Monitoring Wells Project Name / Address:

Payment / P.O. Info:

Project Description:

Order Comments: Monitoring Well Collection = \$65/hour; Travel time to/from site = \$40/hour; Equipment Rental = \$115 flat fee per event;

	9		Ō	Type / Preservation Freservation Check Analysis - Method Field Results	als Non-potable Preservation Check Non-potable Non-potable Preservation Check	Collect Samp Date/Time Initial Initi	Sample Sample Sample Description - Site ID 5100575-01 MW 1 Container Type / Preservation Field Services 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl Field Services Container Type / Preservation Field Services 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl Field Services 70 ml VOA - Cool to 6 C & Ascorbic Acid & HCl
∀ 8	Ō	o		Sic Acid & HCl A Monitor Well Sampling - N/A Monitor Well Sampling - N/A Monitor Well Sampling - N/A Monitor Well Sampling - N/A Monitor Well Sampling - N/A Monitor Well Sampling - N/A World & HCl Volatiles VOA, 8260, USTUnleaded - SW 846 8260B Nic Acid & HCl D Non-potable Grab	Preservation Check		INCOLUTION AND INCOLU
An	A General Method A Monitor Well Sampling - N/A	General Method	Analysis - Method Control of the Con	General Method Monitor Well Sampling - N/A Wolatiles Wolat	Dancas Charle		Tvna / Preservation
A Preservation Check A Ge	A General Method Monitor Well Sampling - N/A	A General Method	Preservation Check Analysis Method	General Method	Non-potable	1018	W3
1.0571/5 1/1/2 Non-potable Grab	1,471 5 1,71 5 1,71 6 Non-potable Grab	Infinity 1/1/2 Non-potable Grab	Grab Grab Grab Preservation Check Analysis Method	General Method		Q	-Cool to 6 C & Ascorbic Acid & HCI
D Grab Grab Grab Grab Grab Grab Grab Grab Analysis - Method General Method General Method Monitor Well Sampling - N/A Volatiles Vola	bic Acid & HCI	D	bic Acid & HCI D Non-potable Grab Grab Grab Preservation Check Analysis Method	General Method Monitor Well Sampling - N/A Wolatiles Wolat			Cool to 6 C & Ascorbic Acid & HCI
C	C	bic Acid & HCI C Non-potable Grab C Inc Acid & HCI Non-potable Grab Analysis Method	Jic Acid & HCJ Jic Acid & HCJ 1년 711	General Method Monitor Well Sampling - N/A			Cool to 6.C. & Ascorbic Acid & HCI
E	Sic Acid & HCl Colatiles Volatiles Sic Acid & HCl C Analysis - Method Sic Acid & HCl D Analysis - Method Monitor Well Sampling - N/A Analysis - Method	Volatiles Volatiles VOA, 8260, USTUnleaded - SW 846 8260B VOA, 8260, USTUnleaded - SW 846 8260B Nic Acid & HCI D Non-potable Grab Preservation Check Analysis Method	Sic Acid & HCl Volatiles VoA, 8260, USTUnleaded - SW 846 8260B VoA, 8260, USTUnleaded - SW 846 8260B Sic Acid & HCl D Inc Acid & HCl Non-potable Grab Analysis Method Analysis Method				
A General Method Monitor Well Sampling - N/A Volatiles VOA, 8280, USTUnieaded - SW 846 8260B VOA, 8280, USTUnieaded - SW 846 8260B VOA, 8280, USTUnieaded - SW 846 8260B VOA, 8280, USTUnieaded - SW 846 8260B VOA, 8280, USTUnieaded - SW 846 8260B VOA, 8280, USTUNIEADE V	General Method Monitor Well Sampling - N/A Northeaded - SW 846 8260B Northeaded - SW 846 8260B Northeaded - SW 846 8260B	General Method Monitor Well Sampling - N/A Nontior Well Sampling - N/A N/A Nontior Well Sampling - N/A Nontior Well Sampling - N/A N/A	General Method General Method Monitor Well Sampling - N/A Monitor Well Sampling - N/A Volatiles VOA, 8260, USTUNieaded - SW 846 8260B Nic Acid & HCI D Infants N/I % Infants Non-potable Grab Analysis Method	医多子 一定 医骨毛骨 机工程 一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个			
Preservation.Check Analysis - Method Analysis - Method General Method Monitor Well Sampling - N/A Volatiles VOA, 8260, USTUnleaded - SW 846 8260B VOA, 8260, USTUnleaded - SW 846 8260B VOA, 8260, USTUnleaded - SW 846 8260B VOA, 8260, USTUNICADED Grab Grab Analysis - Method Analysis - Method Monitor Well Sampling - N/A Monitor Well Sampling - N/A Volatiles Volatiles Volatiles Volatiles Method Volatiles	Analysis - Method General Method General Method Monitor Well Sampling - N/A Section & HCl Method Monitor Well Sampling - N/A Section & HCl Method Monitor Well Sampling - N/A Section & HCl Method Monitor Well Sampling - N/A General Method Monitor Well Sampling - N/A General Method Monitor Well Sampling - N/A Monitor Well Sampling	Analysis - Method Analysis - Method Analysis - Method Monitor Well Sampling - N/A Monitor Well Sampling - N/A Wolatiles Wola	A matrice Amanysis - Method A		Non-potable	7460	W 2
10/6/15 10/42 10		10 6 15 10 4 2 10 4 2 10 4 4 2 10 4 4 2 10 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		10/6/15 10942 10RC Non-potable		Q	Cool to 6 C & Ascorbic Acid & HCI
	Not Acid & HCl D Non-potable Grab Crab Reservation Check Analysis - Method Acid & HCl Acid & HCl B Ceneral Method N/A No Acid & HCl B VOIatiles VOA, 8260, USTUnieaded - SW 846 8260B No Acid & HCl C C Non-potable Grab C No Acid & HCl C C C C C Acid & HCl C C C C C Acid & HCl C C C C C C Acid & HCl C C C C C C C Acid & HCl C		bic Acid & HCl D Non-potable Grab Canal yes Section of the street of the st			2	Cool to 6 C & Ascorbic Acid & HCI
	bic Acid & HCl C Volatiles Volatiles vic Acid & HCl D Preservation Check Analysis - Method ic Acid & HCl Analysis - Method Analysis - Method ic Acid & HCl B Ceneral Method ic Acid & HCl B Volatiles ic Acid & HCl B Volatiles ic Acid & HCl C C I LOFTICS LOTA Non-potable C A C Analysis - Method C A C Analysis - Method C	bic Acid & HCl C Volatiles Volatiles bic Acid & HCl D Preservation Check Analysis - Method bic Acid & HCl Analysis - Method Analysis - Method Acid & HCl B Ceneral Method Acid & HCl B Volatiles Ick Acid & HCl C Non-potable Grab Ick Acid & HCl C Non-potable Grab Analysis - Method Analysis - Method Analysis - Method Grab Analysis - Method Analysis - Method Grab Analysis - Method	bic Acid & HCl C Volatiles Volatiles vic Acid & HCl D Preservation Check Analysis - Method Analysis - Method sic Acid & HCl B Analysis - Method Analysis - Method sic Acid & HCl B Volatiles sic Acid & HCl C C sic Acid & HCl D Non-potable c Acid & HCl C C pic Acid & HCl C C pic Acid & HCl C C pic Acid & HCl C C pic Acid & HCl C C pic Acid & HCl C C pic Acid & HCl C C pic Acid & HCl C C pic Acid & HCl C C pic Acid & HCl C C pic Acid & HCl C C pic Acid & HCl C C pic Acid & HCl C C pic Acid & HCl C C pic Acid & HCl C C </th <td>VG D D D D D D D D D </td> <td></td> <td>8</td> <td>Cool to 6.C & Ascorbic Acid & HCI</td>	VG D D D D D D D D D		8	Cool to 6.C & Ascorbic Acid & HCI
C	bic Acid & HCI B Unassigned Sample Collection, Custom 3 - SL0015 bic Acid & HCI C Non-potable Volatiles vol. & S260, UST Unleaded - SW 846 8260B Sample Collection, Custom 3 - SL0015 Non-potable Grab bic Acid & HCI A Preservation Check Amalysis - Method Amalysis - Method bic Acid & HCI B Vol. & S260, UST Unleaded - SW 846 8260B Vol. & S260, UST Unleaded - SW 846 8260B bic Acid & HCI C Non-potable Grab Amalysis - Method cold Acid & HCI D Preservation Check Amalysis - Method Amalysis - Method Amalysis - Method Amalysis - Method Amalysis - Method Amalysis - Method	bic Acid & HCI B Unassigned Sample Collection, Custom 3 - SL0015 bic Acid & HCI C Volatiles vic Acid & HCI D Non-potable Grab bic Acid & HCI A Preservation Check Analysis - Method Acid & HCI B Non-potable General Method No Acid & HCI B Volatiles Vola, 8260, USTUnleaded - SW 846 8260B No Acid Strict Dic Acid & HCI C Inf 7/1/5 1/1/8 1/1/	bic Acid & HCl B Unassigned Sample Collection, Custom 3 - SL0015 bic Acid & HCl C Volatiles volatiles VOA, 8260, USTUnleaded - SW 846 8260B volatiles VOA, 8260, USTUnleaded - SW 846 8260B volatiles Amalysis - Method Acid & HCl Amalysis - Method volatiles VOA, 8260, USTUnleaded - SW 846 8260B volatiles C recentration Check Analysis - Method	(U) (G) (G) (G) (D) (D) (D) (D) (D) (D) (D) (D) (D) (D			es
A General Method Monitor Well Sampling - NIA Unassigned Sample Collection, Custom 3 - SL0015	A Canada & HCI B A Canada Monitor Well Sampling - N/A Unassigned Sample Collection Custom 3 - St.0015 Unassigned Sample Collection Colle	Series & HCI B General Method bic Acid & HCI B Monitor Well Sampling - N/A bic Acid & HCI C Sample Collection , Custom 3 - SL0015 bic Acid & HCI C Volatiles bic Acid & HCI D Freservation Check Analysis - Method Acid & HCI A Analysis - Method Analysis - Method bic Acid & HCI B Volatiles bic Acid & HCI B Volatiles bic Acid & HCI C Analysis - Method C Analysis - Method Analysis - Method	Size Acid & HCI B General Method Monitor Well Sampling - NA bic Acid & HCI C Non-potable Volatiles bic Acid & HCI D Preservation Check Analysis - Method bic Acid & HCI A Preservation Check Analysis - Method bic Acid & HCI B Analysis - Method bic Acid & HCI B Analysis - Method bic Acid & HCI C Analysis - Method	(a) (b) (c) (c) (c) (d) (d) (d) (e) (e) (e) (e) (e) (e) (e) (e) (e) (e	Preservation Check		Npe / Preservation
Analysis - Method Analysis - Method Analysis - Method	Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - Method	Analysis - Method Analysis - Method Analysis - Method Analysis - Method Analysis - M	Preservation Check	Preservation Check Analysis - Method Caneral Method Monitor Well Sampling - N/A Caneral Method Sampling -	<u> </u>	7.701	W 1
	1/4/4/1/5 1/6/2	1/4/1/5 1/6/2 1/	10/2/1/5 1022 102	10 6 5 102 2 DRC Non-potable Grab Grab Reservation Check Analysis - Method General Method Monitor Well Sampling - N/A Unassigned Sample Collection, Custom 3 - SL0015 Sample Collection, C			Description - Site ID
VOA, 8260, USTUnleaded - SW 846 8260B	olatiles VOA 8260 USTUnleaded - SW/ 846 82608	Monitor Weil Sampling - N/A	ieneral Method			Non-potable reservation Check Non-potable Non-potable reservation Check	102 VR Non-potable 102 VR Non-potable 102 VR Non-potable 103 VR Non-potable 103 VR Non-potable 103 VR Non-potable 103 VR Non-potable 103 VR Non-potable 103 VR Non-potable 103 VR Non-potable 104 VR Non-potable 105 VR Non-potable 105 VR Non-potable 105 VR Non-potable 105 VR Non-potable 105 VR Non-potable 105 VR Non-potable 105 VR Non-potable 105 VR Non-potable 105 VR Non-potable 105 VR Non-potable 105 VR Non-potable 105 VR Non-potable 105 VR VR Non-potable 105 VR VR VR VR 105 VR VR VR 105 VR VR VR 105 VR VR VR 105 VR VR VR 105 VR VR 105 VR VR 105 VR VR 105 VR VR 105 VR VR 105 VR VR 105 VR VR 105 VR VR 105 VR VR 105 VR VR 105 VR VR 105 VR VR 105 VR VR 105 VR 105 VR VR 105 VR 10

5100575

Page 1 of 4

ORDER ID: 5100575	Composite TX Type Start Date/ Time God	Analysis Method	General Method Monitor Well Sampling - N/A Volatiles VOA, 8260, USTUnleaded - SW 846 8260B	otable Grab	Sheck Field Results	General Method Monitor Well Sampling • N/A Volatiles VOA, 8260, USTUnleaded • SW 846 8260B	otable Grab	theck Analysis - Method Field Results	General Method Monitor Well Sampling - N/A Volatiles VOA, 8260, USTUnleaded - SW 846 8260B	table Grab	Analysis Method General Method Monitor Well Sampling - N/A Volatiles VOA, 8260, USTUnleaded - SW 846 8260B
	Collect Sampler's Matrix Date/Time Initials Matrix	Preservi		Non-potable Non-potable	Preservation Check	Ф О	15/15 15:20 ()\$(C Non-potable	Preservation Check	\ ∀	-635 1308 UKC Non-potable	Preservation Check A C C

40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI

40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl

40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI

Sample Description - Site ID

Container Type / Preservation

Field Services

5100575-04 MW 4

Sample Number 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI

Container Type / Preservation

Field Services

5100575-05 MW 5

40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl

40 ml VOA - Cool to 6 C & Assorbic Acid & HCl

5100575-06 TRIP BLANK DAY 1 OF SAMPLING

Container Type / Preservation

Field Services

40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl

40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI

40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl

Container Type / Preservation

Field Services

5100575-07 | MW 6

wka_STL_Prelog_ls.rpt

40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl

40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl

40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI

5100575

			1 1	
TS jo El age 13 of 27				
D: 5100575	Field Results	Field Results	Field Results	Page 3 of 4

Constitution of the second of	ORDER ID: 5100575
	Sample Composite Type Start Date / Time
5100575-08 MP (1)[7][15 C43 2 UAC Non-potable	Grab
Contain et pe / Preservation	Analysis - Method
Field Service 40 ml V/OA bol to 6 C & Ascorbic Acid & HCl	General Method Monitor Well Sampling - N/A Volatiles
40 ml VOA bol to 6 C & Ascorbic Acid & HCl	VOA, 8260, USTUNIeaded - SW 846 8260B
40 ml VOA-fool to 6 C & Ascorbic Acid & HCl	
5100575-09 MMs 10/6/15 100,0 100 Non-potable	Grab
Container The / Preservation Check	Analysis - Method
Field Service	General Method Monitor Well Sampling - N/A
40 ml VOA - bol to 6 C & Ascorbic Acid & HCl	Volatiles
40 ml VOA - bol to 6 C & Ascorbic Acid & HCl	VOA, 8260, USTUnleaded - SW 846 8260B
40 mI VOA - Soil to 6 C & Ascorbic Acid & HCI	
5100575-10 MW) 19/6/15 1278 9/8 Non-potable	Grab
Preserva	Analysis: Method
Field Services	
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	Monitor Well Sampling - N/A Volatiles
40 ml VOA - Qol to 6 C & Ascorbic Acid & HCl	VOA, 8260, USTUnleaded - SW 846 8260B
40 ml VOA - Cool to 6 C. & Ascorbic Acid & HCl	
5100575-11 MW 10 Non-potable NO-potable	Grab
Container Type / Preservation	Analysis - Method
Field Services	General Method
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	Volatiles
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	VOA, 8260, USTUnleaded - SW 846 8260B
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	

5100575

Page 14 of 27

ORDER ID: 5100575

Field Results

Sample Composite Type Start Date / Time	Grab	Analysis - Method	General Method Monitor Well Sampling - N/A Volatiles VOA, 8260, USTUnleaded - SW 846 8260B	
Sampler's Initials Matrix	Non-potable	Preservation Check		
Collect Sam Date/Time Init	10/5/15 1522 OR			
Sample Description - Site ID	5100575-12 TRIP BLANK DAY 2 OF SAMPLING	Container Type / Preservation	Field Services 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	化对应多数 经基础 医二苯基酚 医内脏 医阴道的 医二氯甲基丙基甲基酚
Sample Number	5100575-12	Contain	Field Se 40 ml VC 40 ml VC	2.0

Start Date / Time		PC	eneral Method Monitor Well Sampling - N/A olatiles VOA, 8260, USTUnleaded - SW 846 8260B
Type	Grab	Analysis - Method	General Method Monitor Well Sampling - N/A Volatiles VOA, 8260, USTUnleaded - S
Matrix	Non-potable	Preservation Check	
Date/Time Initials	10/5/15 1522 DRC		Θ Ο Ω
Number Sample Description - Site ID	00575-12 TRIP BLANK DAY 2 OF SAMPLING	Container Type / Preservation	Field Services 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl
Number	100575-12	Contain	Field Services 40 ml VOA - Co 40 ml VOA - Co

Relinquished By:	Doto:			
المراقع مع المراقع مع	Dale:	Temp (°C):	Sample Conditions Sample Type Key	Reporting Options
	Time:	Acceptable: 7 Y / N	Submitted with COC?	
Received By:	Date:	Temp (°C):		PWSID:
	Time:	Acceptable:? Y/N	Acceptable:? Y / N Number of Containers	
Relinquished By:	Date: (0 - 6 - 15	Temp (°C): ₹2	All Containage Interest	Email
The state of the s	Time: (435	Acceptable:? 👸 / N		Report
Received in Lay By:	Date: O 715	Temp (°C):	lests within Holding Times? (Y / N X S = Special	
H Lamis	Time: 143く	Acceptable:? Y / N	Acceptable: ? Y / N VOC Vials Free of Headspace? V/ N M = Maximum Residence	dence
Signing this form indicates your agreement with STL's Standard Terms and Conditions (www.standardsentestinglabs.com/resources/standard-terms-and-conditions.html) unless otherwise specified in writing.	ns and Conditions (www.swaurbante	stinglabs.com\resources\stand	dard-terms-and-conditions.html) unless otherwise specified in writing.	Shaded areas are for SWTL use only

Page 4 of 4

5100575

Date Printed: 10/05/2015

Date Created: 09/25/2015

Deborah Hannum

wko STL Prelog Is.pt (Relingment had by

ORDER ID: 5100575

		Field Results				
		:	!			
Composite Start Date / Time			d pling - N/A	ورومو مده بدين استدورانا	VOA, 8260, US LUMBADED - SW 646 8260B	
Sample Type	Grab	Analysis - Method	General Method Monitor Well Sampling - N/A	Volatiles	VOA, 8280, USTE	
Matrix	Non-potable	Preservation Check				
Sampler's Initials		Pri	[₩	8	O	ا ا
Collect Date/Time						
Sample Description - Site ID	5100575-12 TRIP BLANK DAY 2 OF SAMPLING	Container Type / Preservation	ices	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	40 ml VOA - Cool to 6 C & Ascarbic Acid & HC!	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl
Sample Number	5100575-12	Containe	Field Services	40 ml VO/	40 ml VO	40 ml VO/

Relinquished By:	Date:	Temp (°C):	Sample Conditions		Sample Type Key	Reporting Options
	Time:	Acceptable:? Y / N	Submitted with COC?	ΛΛΛ	G = Grab	SDWA Reporting
Received By:	Date:	Temp (°C):	(8HC = 8 Hr. Composite 24HC = 24 Hr. Composite	- Lwell:
	Time:	Acceptable 7 Y N	Acceptable: 7 / Match Number of COC?	∠ ≻	D = Dietribution	
Relinquished By:	Date: (0-6 (5	Temp (°C): 4.2	•	2 >	S E = Entry Point	Return a copy of this form with
XX COL	Time: 1435	Acceptable:? 8/N			D R= Raw W C= Check	Report Other
Received in Lab By:	Date: / Congress Temp (°C): 4.2	Temp (°C): 🐍 🖒	lests within Holding Times?	Z	A S = Special	
(All With I	Time: / १९३	Acceptable:? (Y) N	Acceptable:? (父) N VOC Vials Free of Headspace? ヴ/ N	e? W/N	W = Waximum Residence	
igning this form indicates your agreen part with STL's Standard Terms and Conditions (www.suburbantestinglabs.com/resources/standard-terms-and-conditions.himl) unless otherwise specified in writing.	Terms and Conditions (www.suburbantes	ifinglabs.com/resources\stand	dard-terms-and-conditions.html) unless	otherwise spec	lined in writing.	Shaded areas are for SWTL use only
ko_STL_Prelog_1s.rpt	Deborah Hannum	Date Created: 09/25/2015	9/25/2015 Date Printed; 10/05/2015	10/05/2015	5100575	Page 4 of 4



Results Report

Order ID: 6012049

Rettew - Lancaster

3020 Columbia Avenue Lancaster, PA 17603

Project: Herr Foods- Monitoring Wells

Attn: Ed Dziedzic

Regulatory ID:

Sample Number: 6012049-03

Site: MW 3

Sample ID:

Collector: DRC

Collect Date: 01/15/2016 12:43 pm

Sample Type: Grab

	#40.00 Ayu 18.000	The second secon	and the second of the second	*0.09 (190)		ypc. Glab			
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	11.0	N/A	N/A		1	01/15/16	BAK	01/15/16 12:43	DRC
Static Water Level (ft)	4.91	N/A	N/A		1	01/15/16	BAK	01/15/16 12:43	DRC
Total Volume Purged (gal)	2.80	N/A	N/A		1	01/15/16	BAK	01/15/16 12:43	DRC
Total Well Depth (ft)	25.0	N/A	N/A		1	01/15/16	BAK	01/15/16 12:43	DRC
Well Diameter (in)	2.00	N/A	N/A		1	01/15/16	BAK	01/15/16 12:43	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	88.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 14:02	AMD
Ethyl Benzene	802	µg/L	SW 846 8260B	50.0	100	01/20/16	AMD	01/22/16 12:10	AMD
Isopropylbenzene	20.8	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 14:02	AMD
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 14:02	AMD
Naphthalene	116	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 14:02	AMD
Toluene	6550	μg/L	SW 846 8260B	50.0	100	01/20/16	AMD	01/22/16 12:10	AMD
1,2,4-Trimethylbenzene	337	μg/L	SW 846 8260B	50.0	100	01/20/16	AMD	01/22/16 12:10	AMD
1,3,5-Trimethylbenzene	93.3	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 14:02	AMD
Xylenes, Total	4020	μg/L	SW 846 8260B	100	100	01/20/16	AMD	01/22/16 12:10	AMD
Surrogate Recoveries		Results	Units	%Recovery	Met	hod		Limits (%Reco	overy)
Surrogate: Dibromofluoromethane		46.1	μg/L	92.2%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		53.4	μg/L	107%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		49.6	μg/L	99.2%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		44.1	µg/L	88.2%	SW	846 8260B		80-120	

Sample Number: 6012049-04 Site: MW 4 Sample ID:

Result

5.81

Collector: DRC Collect Date: 01/15/2016 1:39 pm Sample Type: Grab

General Method								
Monitor Well Samplin	ng							
Sampling Depth (ft)	10.0	0 N/A	N/A	1	01/15/16	BAK	01/15/16 13:39	DRC

Method

N/A

Report Generated On: 01/25/2016 2:06 pm 6012049

> STL_Results Revision #1.6 Effective: 07/09/2014

N/A



Prep Date By

01/15/16 BAK



DRC

Department / Test / Parameter

Static Water Level (ft)

Analysis Date

01/15/16 13:39



Sample Number: 6012049-04 Site: MW 4 Sample ID:

Collector: DRC Collect Date: 01/15/2016 1:39 pm Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method (Continued)									
Monitor Well Sampling (Continued)									
Total Volume Purged (gal)	1.70	N/A	N/A		1	01/15/16	BAK	01/15/16 13:39	DRC
Total Well Depth (ft)	19.0	N/A	N/A		1	01/15/16	BAK	01/15/16 13:39	DRC
Well Diameter (in)	2.00	N/A	N/A		1	01/15/16	BAK	01/15/16 13:39	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	1790	μg/L	SW 846 8260B	50.0	100	01/20/16	AMD	01/22/16 12:38	AMD
Ethyl Benzene	1290	μg/L	SW 846 8260B	50.0	100	01/20/16	AMD	01/22/16 12:38	AMD
Isopropylbenzene	36.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 14:30	AMD
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 14:30	AMD
Naphthalene	129	μg/L	SW 846 8260B	50.0	100	01/20/16	AMD	01/22/16 12:38	AMD
Toluene	8710	μg/L	SW 846 8260B	50.0	100	01/20/16	AMD	01/22/16 12:38	AMD
1,2,4-Trimethylbenzene	725	μg/L	SW 846 8260B	50.0	100	01/20/16	AMD	01/22/16 12:38	AMD
1,3,5-Trimethylbenzene	220	μg/L	SW 846 8260B	50.0	100	01/20/16	AMD	01/22/16 12:38	AMD
Xylenes, Total	5860	µg/L	SW 846 8260B	100	100	01/20/16	AMD	01/22/16 12:38	AMD
Surrogate Recoveries		Results	Units	%Recovery	Met	hod		Limits (%Rece	overy)
Surrogate: Dibromofluoromethane		39.9	μg/L	79.8%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		55.2	μg/L	110%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		44.5	μg/L	89.0%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		45.3	μg/L	90.7%	SW	846 8260B		80-120	

Sample Number: 6012049-05 Site: MW 5 Sample ID:

Collector: DRC-STL Collect Date: 01/14/2016 1:05 pm Sample Type: Grab

			<u> </u>		-				
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	01/14/16	BAK	01/14/16 13:05	DRC
Static Water Level (ft)	4.60	N/A	N/A		1	01/14/16	BAK	01/14/16 13:05	DRC
Total Volume Purged (gal)	2.90	N/A	N/A		1	01/14/16	BAK	01/14/16 13:05	DRC
Total Well Depth (ft)	27.0	N/A	N/A		1	01/14/16	BAK	01/14/16 13:05	DRC
Well Diameter (in)	2.00	N/A	N/A		1	01/14/16	BAK	01/14/16 13:05	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	187	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:04	AMD
Ethyl Benzene	94.7	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:04	AMD
Isopropylbenzene	5.6	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:04	AMD
Methyl-t-butyl ether (MTBE)	4.1	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:04	AMD

Report Generated On: 01/25/2016 2:06 pm 6012049







Sample Number: 6012049-05 Site: MW 5 Sample ID:

Collector: DRC-STL Collect Date: 01/14/2016 1:05 pm Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
Volatiles (Continued)									
VOA, 8260, USTUnleaded (Continued)									
Naphthalene	21.8	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:04	AMD
Toluene	6.4	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:04	AMD
1,2,4-Trimethylbenzene	56.8	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:04	AMD
1,3,5-Trimethylbenzene	17.9	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:04	AMD
Xylenes, Total	151	μg/L	SW 846 8260B	1.0	1	01/19/16	AMD	01/19/16 21:04	AMD
Surrogate Recoveries		Results	Units	%Recovery	Mei	thod		Limits (%Reco	overy)
Surrogate: Dibromofluoromethane		51.5	μg/L	103%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		50.8	μg/L	102%	SW	846 8260B		80-120	
Surrogate: Toluene-d8	53.1		μg/L	106%	SW 846 8260B			80-120	
Surrogate: Bromofluorobenzene		49.0	μg/L	98.1%	SW	846 8260B		80-120	

Sample Number: 6012049-06 Site: TRIP BLANK DAY 1 OF SAMPLING Sample ID:

Collector: HMB-STL Collect Date: 01/14/2016 12:00 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/22/16 11:15	AMD
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/22/16 11:15	AMD
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/22/16 11:15	AMD
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/22/16 11:15	AMD
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/22/16 11:15	AMD
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/22/16 11:15	AMD
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/22/16 11:15	AMD
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/22/16 11:15	AMD
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	01/20/16	AMD	01/22/16 11:15	AMD
Surrogate Recoveries		Results	Units	%Recovery	Ме	thod		Limits (%Rec	overy)
Surrogate: Dibromofluoromethane		54.8	μg/L	110%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		52.0	μg/L	104%	SW	846 8260B		80-120	
Surrogate: Toluene-d8	49.7		μg/L	99.4%	SW 846 8260B			80-120	
Surrogate: Bromofluorobenzene		51.2	μg/L	102%	SW	846 8260B		80-120	

Sample Number: 6012049-08 Site: MW 7 Sample ID:

Collector: DRC Collect Date: 01/15/2016 9:12 am Sample Type: Grab

Department / Test / Parameter Result Units Method R.L. DF Prep Date By Analysis Date By

General Method

Report Generated On: 01/25/2016 2:06 pm 6012049

STL_Results Revision #1.6 Effective: 07/09/2014

SUBURBAN TESTING LABS





Sample Number: 6012049-08 Site: MW 7 Sample ID:

Collector: DRC Collect Date: 01/15/2016 9:12 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Metho	od	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method (Continued)										
Monitor Well Sampling										
Sampling Depth (ft)	8.00	N/A	N/A	į.		1	01/15/16	BAK	01/15/16 9:12	DRC
Static Water Level (ft)	5.96	N/A	N/A	E		1	01/15/16	BAK	01/15/16 9:12	DRC
Total Volume Purged (gal)	2.50	N/A	N/A			1	01/15/16	BAK	01/15/16 9:12	DRC
Total Well Depth (ft)	20.0	N/A	N/A			1	01/15/16	BAK	01/15/16 9:12	DRC
Well Diameter (in)	2.00	N/A	N/A	Š		1	01/15/16	BAK	01/15/16 9:12	DRC
<u>Volatiles</u>										
VOA, 8260, USTUnleaded										
Benzene	692	μg/L	SW 846 8	3260B	50.0	100	01/20/16	AMD	01/22/16 13:06	AMD
Ethyl Benzene	681	μg/L	SW 846 8	3260B	50.0	100	01/20/16	AMD	01/22/16 13:06	AMD
Isopropylbenzene	50.0	μg/L	SW 846 8	3260B	0.5	1	01/20/16	AMD	01/20/16 15:27	AMD
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8	3260B	0.5	1	01/20/16	AMD	01/20/16 15:27	AMD
Naphthalene	171	μg/L	SW 846 8	3260B	50.0	100	01/20/16	AMD	01/22/16 13:06	AMD
Toluene	784	μg/L	SW 846 8	3260B	50.0	100	01/20/16	AMD	01/22/16 13:06	AMD
1,2,4-Trimethylbenzene	623	μg/L	SW 846 8	3260B	50.0	100	01/20/16	AMD	01/22/16 13:06	AMD
1,3,5-Trimethylbenzene	167	μg/L	SW 846 8	3260B	0.5	1	01/20/16	AMD	01/20/16 15:27	AMD
Xylenes, Total	3760	μg/L	SW 846 8	3260B	100	100	01/20/16	AMD	01/22/16 13:06	AMD
Surrogate Recoveries		Results	Units	Ş	%Recovery	Met	hod		Limits (%Rec	overy)
Surrogate: Dibromofluoromethane		43.8	μg/L		87.6%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		54.8	μg/L		110%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		49.0	μg/L		97.9%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		37.9	V μg/L		75.9%	SW	846 8260B		80-120	

Sample Number: 6012049-10 Site: MW 9 Sample ID:

Collector: DRC-STL Collect Date: 01/14/2016 12:18 pm Sample Type: Grab

Collector: DRC-31E	Collec	t Date. 01/14/20	010 12.16 pm	٥,	апріе і	уре. Стар			
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	01/14/16	BAK	01/14/16 12:18	DRC
Static Water Level (ft)	3.94	N/A	N/A		1	01/14/16	BAK	01/14/16 12:18	DRC
Total Volume Purged (gal)	2.60	N/A	N/A		1	01/14/16	BAK	01/14/16 12:18	DRC
Total Well Depth (ft)	20.0	N/A	N/A		1	01/14/16	BAK	01/14/16 12:18	DRC
Well Diameter (in)	2.00	N/A	N/A		1	01/14/16	BAK	01/14/16 12:18	DRC
Volatiles									
VOA, 8260, USTUnleaded									
Benzene	5.4	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:31	AMD
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:31	AMD

Report Generated On: 01/25/2016 2:06 pm 6012049

> STL_Results Revision #1.6 Effective: 07/09/2014





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Sample Number: 6012049-10 Site: MW 9 Sample ID:

Collector: DRC-STL Sample Type: Grab Collect Date: 01/14/2016 12:18 pm

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
Volatiles (Continued)									
VOA, 8260, USTUnleaded (Continued)									
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:31	AMD
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:31	AMD
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:31	AMD
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:31	AMD
1,2,4-Trimethylbenzene	0.7	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:31	AMD
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:31	AMD
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	01/19/16	AMD	01/19/16 21:31	AMD
Surrogate Recoveries		Results	Units	%Recovery	Me	thod		Limits (%Reco	overy)
Surrogate: Dibromofluoromethane		53.2	μg/L	106%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		50.8	μg/L	102%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		50.3	μg/L	101%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		45.9	μg/L	91.7%	SW	846 8260B		80-120	

Sample Number: 6012049-11 Site: MW 10 Sample ID:

Collector: DRC-STL Collect Date: 01/14/2016 11:38 am Sample Type: Grab

Collector: DRC-STL	Coll	Collect Date: 01/14/2016 11:38 am				ype: Grab			
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	01/14/16	BAK	01/14/16 11:38	DRC
Static Water Level (ft)	4.01	N/A	N/A		1	01/14/16	BAK	01/14/16 11:38	DRC
Total Volume Purged (gal)	2.70	N/A	N/A		1	01/14/16	BAK	01/14/16 11:38	DRC
Total Well Depth (ft)	20.0	N/A	N/A		1	01/14/16	BAK	01/14/16 11:38	DRC
Well Diameter (in)	2.00	N/A	N/A		1	01/14/16	BAK	01/14/16 11:38	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	2190	μg/L	SW 846 8260B	50.0	100	01/19/16	AMD	01/21/16 0:30	AMD
Ethyl Benzene	13.6	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:58	AMD
Isopropylbenzene	22.6	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:58	AMD
Methyl-t-butyl ether (MTBE)	114	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:58	AMD
Naphthalene	75.4	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:58	AMD
Toluene	43.6	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:58	AMD
1,2,4-Trimethylbenzene	3.9	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:58	AMD
1,3,5-Trimethylbenzene	3.2	μg/L	SW 846 8260B	0.5	1	01/19/16	AMD	01/19/16 21:58	AMD
Xylenes, Total	42.2	μg/L	SW 846 8260B	1.0	1	01/19/16	AMD	01/19/16 21:58	AMD
Surrogate Recoveries		Results	Units	%Recovery	Mei	thod		Limits (%Reco	overy)
Surrogate: Dibromofluoromethane		46.6	μg/L	93.2%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		45.7	μg/L	91.4%	SW	846 8260B		80-120	

Report Generated On: 01/25/2016 2:06 pm 6012049







Sample Number: 6012049-11 Site: MW 10 Sample ID:

Collector: DRC-STL Collect Date: 01/14/2016 11:38 am Sample Type: Grab

Department / Test / Parameter Ву Result Units Method R.L. Prep Date Analysis Date

Volatiles (Continued)

VOA, 8260, USTUnleaded (Continued)

Surrogate Recoveries (Continued) Results Units Method Limits (%Recovery) %Recovery 51.5 103% SW 846 8260B 80-120 Surrogate: Toluene-d8 μg/L SW 846 8260B 80-120 Surrogate: Bromofluorobenzene 50.2 100% μg/L

Sample Number: 6012049-12 Site: TRIP BLANK DAY 2 OF SAMPLING Sample ID:

Collector: Collect Date: 01/14/2016 12:00 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/22/16 11:42	AMD
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/22/16 11:42	AMD
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/22/16 11:42	AMD
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/22/16 11:42	AMD
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/22/16 11:42	AMD
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/22/16 11:42	AMD
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/22/16 11:42	AMD
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/22/16 11:42	AMD
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	01/20/16	AMD	01/22/16 11:42	AMD
Surrogate Recoveries		Results	Units	%Recovery	Met	thod		Limits (%Reco	overy)
Surrogate: Dibromofluoromethane		56.7	μg/L	113%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		54.0	μg/L	108%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		49.3	μg/L 98.6% SW 846 8260B			80-120			
Surrogate: Bromofluorobenzene		49.2	μg/L	98.4%	SW	846 8260B		80-120	

Sample Number: 6012049-13 Site: MW 11 Sample ID:

Collector: DRC Collect Date: 01/15/2016 11:43 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	11.5	N/A	N/A		1	01/15/16	BAK	01/15/16 11:43	DRC
Static Water Level (ft)	0.240	N/A	N/A		1	01/15/16	BAK	01/15/16 11:43	DRC
Total Volume Purged (gal)	2.40	N/A	N/A		1	01/15/16	BAK	01/15/16 11:43	DRC
Total Well Depth (ft)	12.5	N/A	N/A		1	01/15/16	BAK	01/15/16 11:43	DRC
Well Diameter (in)	2.00	N/A	N/A		1	01/15/16	BAK	01/15/16 11:43	DRC

Report Generated On: 01/25/2016 2:06 pm 6012049







Sample Number: 6012049-13 Site: MW 11 Sample ID:

Collector: DRC Collect Date: 01/15/2016 11:43 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
Volatiles									
VOA, 8260, USTUnleaded									
Benzene	0.9	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 16:24	AMD
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 16:24	AMD
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 16:24	AMD
Methyl-t-butyl ether (MTBE)	137	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 16:24	AMD
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 16:24	AMD
Toluene	0.6	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 16:24	AMD
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 16:24	AMD
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 16:24	AMD
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	01/20/16	AMD	01/20/16 16:24	AMD
Surrogate Recoveries		Results	Units	%Recovery	Met	hod		Limits (%Reco	overy)
Surrogate: Dibromofluoromethane		53.4	μg/L	107%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		57.6	μg/L	115%	SW	846 8260B		80-120	
Surrogate: Toluene-d8	50.0		μg/L	100%	SW 846 8260B			80-120	
Surrogate: Bromofluorobenzene	50.7		μg/L	101%	SW 846 8260B			80-120	

Sample Number: 6012049-14 Site: MW 12 Sample ID:

Collector: DRC Collect Date: 01/15/2016 10:12 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	9.00	N/A	N/A		1	01/15/16	BAK	01/15/16 10:12	DRC
Static Water Level (ft)	2.20	N/A	N/A		1	01/15/16	BAK	01/15/16 10:12	DRC
Total Volume Purged (gal)	2.60	N/A	N/A		1	01/15/16	BAK	01/15/16 10:12	DRC
Total Well Depth (ft)	12.0	N/A	N/A		1	01/15/16	BAK	01/15/16 10:12	DRC
Well Diameter (in)	2.00	N/A	N/A		1	01/15/16	BAK	01/15/16 10:12	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 16:53	AMD
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 16:53	AMD
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 16:53	AMD
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 16:53	AMD
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 16:53	AMD
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 16:53	AMD
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 16:53	AMD
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 16:53	AMD
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	01/20/16	AMD	01/20/16 16:53	AMD
Surrogate Recoveries		Results	Units	%Recovery	Met	hod		Limits (%Rec	overy)

Report Generated On: 01/25/2016 2:06 pm 6012049







Site: MW 12 Sample ID: Sample Number: 6012049-14

Collector: DRC Collect Date: 01/15/2016 10:12 am Sample Type: Grab

Department / Test / Parameter Result Units Method R.L. Prep Date Analysis Date Ву

Volatiles (Continued)

VOA, 8260, USTUnleaded (Continued)

Surrogate Recoveries (Continued)	Results	Units	%Recovery	Method	Limits (%Recovery)
Surrogate: Dibromofluoromethane	54.2	μg/L	108%	SW 846 8260B	80-120
Surrogate: 1,2-Dichloroethane-d4	57.6	μg/L	115%	SW 846 8260B	80-120
Surrogate: Toluene-d8	49.5	μg/L	99.0%	SW 846 8260B	80-120
Surrogate: Bromofluorobenzene	50.6	μg/L	101%	SW 846 8260B	80-120

Sample Number: 6012049-15 Site: MW 13 Sample ID:

Collector: DRC Collect Date: 01/15/2016 10:49 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	9.00	N/A	N/A		1	01/15/16	BAK	01/15/16 10:49	DRC
Static Water Level (ft)	3.41	N/A	N/A		1	01/15/16	BAK	01/15/16 10:49	DRC
Total Volume Purged (gal)	1.80	N/A	N/A		1	01/15/16	BAK	01/15/16 10:49	DRC
Total Well Depth (ft)	12.0	N/A	N/A		1	01/15/16	BAK	01/15/16 10:49	DRC
Well Diameter (in)	2.00	N/A	N/A		1	01/15/16	BAK	01/15/16 10:49	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	< 0.5 M	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 17:21	AMD
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 17:21	AMD
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 17:21	AMD
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 17:21	AMD
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 17:21	AMD
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 17:21	AMD
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 17:21	AMD
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	01/20/16	AMD	01/20/16 17:21	AMD
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	01/20/16	AMD	01/20/16 17:21	AMD
Surrogate Recoveries		Results	Units	%Recovery	Met	hod		Limits (%Rec	overy)
Surrogate: Dibromofluoromethane		52.9	μg/L	106%	SW	846 8260B		80-120	
Surrogate: 1,2-Dichloroethane-d4		56.7	μg/L	113%	SW	846 8260B		80-120	
Surrogate: Toluene-d8		49.4	μg/L	98.7%	SW	846 8260B		80-120	
Surrogate: Bromofluorobenzene		48.8	μg/L	97.6%	SW	846 8260B		80-120	

Report Generated On: 01/25/2016 2:06 pm 6012049







Data Qualifiers:

M The Matrix Spike associated with this sample is not within established acceptance criteria, indicating potential matrix interference.

V The surrogate associated with this sample was not within the established acceptance criteria.

All results meet the requirements of STL's TNI (NELAC) Accredited Quality System unless otherwise noted. If your results contain any data qualifiers or comments, you should evaluate useability relative to your needs.

Deborat M. Hansum

If collectors initials include "STL", samples have been collected in accordance with STL SOP SL0015.

All results reported on an As Received (Wet Weight) basis unless otherwise noted.

This laboratory report may not be reproduced, except in full, without the written approval of STL.

Results are considered Preliminary unless report is signed by authorized representative of STL.

Reviewed and Released By:

Deborah Hannum Project Manager

Report Generated On: 01/25/2016 2:06 pm 6012049

1037F MacArthur Road, Reading, PA 19605 Phone: 800-433-6595

STL_Results Revision #1.6 Effective: 07/09/2014



Chain of Custody Record

1037F MacArthur Road, Reading, PA 19605 Phone: 610-375-8378 - Fax: 610-375-4090 - suburbantestinglabs.com

TAT (Circle One): Standard - 24hr - 48hr - 72hr - Other (Additional charges may apply for rush TAT. If not specified, standard TAT will apply,

ORDER ID: 6012049

Page 10 of 24

FIGURE: 010-373-0370 - Fax. 010-373-4090 - SUBULDE

Rettew - Lancaster 3020 Columbia Avenue Lancaster, PA 17603

Client Name / Address:

Phone: (717) 394-1063 Fax:

Project Name / Address: Herr Foods- Monitoring Wells

Payment / P.O. Info:

Project Description:

Client Project Manager: Ed Dziedzic

Order Comments: Monitoring Well Collection = \$65/hour, Travel time to/from site = \$40/hour; Equipment Rental = \$115 flat fee per event;

Composite Start Date / Time		d Field Results	od nulina - N/A	Unassigned	or, custom s - sections	V9A, 82 <u>60, USTUnleaded</u> - SW 846 8260B		d Field Results	bo holing - N/A	atiles	Unleducd - SVV 040 0200D	The state of the s		d Field Results	bd bvi	C.S. Sandi	VOA, 8260, USTUnleaded - SW 846 8260B	
Sample Type	Grab	Analysis - Method	General Method Wonlor Well Sampling - N/A	Unassigned	Volatiles	V6A-8260, UST	Grab	Analysis - Method	General Method Monitor Well Sampling - N/A		VOA, Ozek, COJ		Grab	Analysis - Method	General Method Monitor Well Sampling - N/A	Volatiles	VOA, 8260, UST	
Matrix	Non-potable	Preservation Check		And the second s		,	Non-potable	Preservation Check	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tayly is a fine to the control of th			Non-potable	Preservation Check				
Collect Sampler's Date/Time Initials			★	B	O Company of the Comp	Q			K. 1700	B	٥	Q	115/16 12-13 DRC		₩	Q	0	Q
Sample Description - Site ID	MW 1	Container-Type / Preservation	vices	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	40 ml VOA - Cool to 6 C & Ascorbic Acid & HGr	40 ml VOA Cool to 6 C & Ascorbic Acid & HCI	-MW2	Container Type / Preservation	vices	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCL	40 ml VOA - Goof to 6 C & Ascorbic Acid & HCI	MW 3	Container Type / Preservation	vices	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI
	6012049-01	Containt	Field Services	40 ml VO	40 ml VO	40 ml 7/0	6012049-02-MW-2	Containe	Field Services	40 ml VO	40 ml VO	40 ml VO	6012049-03	Containe	Field Services	40 ml VO,	40 mi VO,	40 ml VO,

Sample Number Sample	Sample Description - Site ID	Collect S Date/Time	Sampler's Initials	Matrix	Sample Type	Composite Start Date / Time		
6012049-04 MW 4		1115116 1339	DRC	Non-potable	Grab			i
Container Type / Preservation	servation		P	Preservation Check	Analysis - Method		Field Results	,,
Field Services		A			General Method			
40 ml VOA - Cool to 6	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	В			Volatiles	V		
40 mi VOA - Cool to 6	40 mf VOA - Cool to 6 C & Ascorbic Acid & HCI	O			VOA, 8260, USTUnieaded - SW 846 8260B	d - SW 846 8260B		
40 ml VOA - Cool to 6 (40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	Q						
6012049-05 MW 5		1114/16 1305	ORC	Non-potable	Grab	() () () () () () () () () ()		
Container Type / Preservation	servation		Pr	Preservation Check	Analysis - Method		Field Results	
Field Services		A			General Method	V/N		
40 ml VOA - Cool to 6 (40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	В			Volatiles			
40 mt VOA - Cool to 6 (40 mi VOA - Cool to 6 C & Ascorbic Acid & HCI	O			VOA, 8260, USTUnleade	d - SW 846 8260B		
40 ml VOA - Coal to 6 (40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	Q						
6012049-06 TRIP BLANK DAY 1 OF SAMPLING	DAY 1 OF SAMPLING	12/20/15	不至の	Non-potable	Grab			
Container Type / Preservation	servation			Preservation Check	Analysis - Method		Field Results	**
Field Services		A			General Method			
40 ml VOA - Cool to 6 (40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	æ			Monitor well sampling - N/A Volatiles	∀ ∄		
40 ml VOA - Cool to 6 C	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	O			VOA, 8260, USTUnleaded - SW 846 8260B	d - SW 846 8260B		
40 ml VOA - Cool to 6 (40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	Q						
5012049-07~MW 6				Non-potable	Grab	The second of the second of the second		
Container Type / Preservation	servation		Pre	Serv	Analysis - Method		Field Results	
Field Services	And the second s	A			General Method			
40 ml VOA - Cool to 6 C	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	В	$/ \setminus$		Mornior evell sampling - N/A Volatiles	47		
40 ml VOA - Cool to 6 (40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	C Company of the comp		The state of the s	VOA, 8260, USTUnleaded	d - SW 846 8260B		
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	3 & Ascorbic Acid & HCI	a						

Date Created: 01/13/2016

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(W.C)	Г

ORDER ID: 6012049

Sample Number	e Sample Description - Site ID	Collect	Sampler's Initials	Matrix	Sample	Composite Start Date / Time	
6012049-08	MW 7	2160 2115111	720	Non-potable	Grab		
Com	Container Type / Preservation		Pre	Preservation Check	Analysis - Method		Field Results
Field	Field Services	A			General Method	N/A	
40 m	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	8			Volatiles	Volatiles	
40 m	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	0	1 (VOA, 8260, US I UF	leaded - 5W 846 826UB	
40 m	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	Q	1				
6012049-0	6012049-09 MW 8			Non-potable	Grab	RECUESTOR .	
Cont	Container Type / Preservation		Pre	Preservation Check	Analysis - Method		Field Results
Field	Field Services	A		200	General-Wethod	N/A	
40 m	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl		The second secon	- 1	Volatiles	V/N - 611	
40 m	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCL	0	1		VOA, 8260, USTUF	VOA, 8260, USTURIEAGEG - SW 846 8260B	
40 m	40 ml VOA. Geol 16 6 C & Ascorbic Acid & HCl	<u>a</u>	1 I''''		The second secon		
6012049-10	10 MW 9	8121 91-41-1	J.K.	Non-potable	Grab	Wronegoe Lang	
Cont	Container Type / Preservation		Pre	Preservation Check	Analysis - Method		Field Results
Field	Field Services	V			General Method	N/A	
40 m	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	<u>a</u>	, 		Volatiles	₹71 - BIII	
40 mi	40 mt VOA - Cool to 6 C & Ascorbic Acid & HCl	O	7 F		VOA, 8260, USTUn	VOA, 8260, USTUnleaded - SW 846 8260B	
40 m	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	Ω	1 [
6012049-11	11 MW 10	2611 21-151-1	WRC	Non-potable	Grab	(CHARLY TO A TO A TO A TO A TO A TO A TO A TO	
Cont	Container Type / Preservation		Pre	Preservation Check	Analysis - Method		Field Results
Field	Field Services	V V			General Method	N/A	
40 ml	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	Δ.			Volatiles	471 - 611	
40 ml	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	0	,		VOA, 8280, USTUI	VCA, azau, USTUIREdded - SVV 840 azaub	
40 ml	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	О					
			İ				

Date Created: 01/13/2016

Deborah Hannum

6		:			OKDEK ID: 6012049	42 1 0
Sample Sample Description - Site ID	Collect Sa Date/Time	Sampler's Initials	Matrix	Sample Composite Type Start Date / Time	ne	εl ∋g '
6012049-12 TRIP BLANK DAY 2 OF SAMPLING	114116	KAL	Non-potable	, Grab		ુક્
11 Z		Pre	Preservation Check	Analysis - Method	Field Results	
Field Services	A			General Method Monitor Well Sampling - N/A		
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	8		N ₂	Volatiles VOA 8260 LISTUINIeaded - SW 846 8260B	NOB	
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	O					
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	D					
6012049-13 MW 11	SHI 21-51-1	DKC	Non-potable	Grab		
71 ē		Pr	reservation Check	Analysis Method	Field Results	
Field Services	4			General Method Monitor Well Sampling - N/A		
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	В			Unassigned Sample Collection Custom 3 - St 0015		
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	O			Volatiles Vol energy Inches	ava ava ava ava ava ava ava ava ava ava	
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	D			V OA, 6260, UST UTIERAGED - 3VV 646 62		
6012049-14 MW 12	1115/16 1012	UKC	Non-potable	Grab		ı
Container Type / Preservation		Pr	reservation Check	Analysis - Method	Field Results	 1
Field Services	A			General Method Monitor Well Sampling - N/A		
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	В			Unassigned Sample Collection, Custom 3 - SL0015		1
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	၁			Volatiles Vol 8:260 HSTI Inleaded - SW 246 8:260B	AOB.	
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	D			VOT, 0200, 05 UIIIEAUGU - 544 040 02		
6012049-15 MW 13	11/15/16 11/049	URC	Non-potable	Grab		ſ
		Pr	Preservation Check	Analysis - Method	Field Results	
Field Services	A			General Method Monitor Well Sampling - N/A		
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	В			Unassigned Sample Collection, Custom 3 - SL0015		1
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	O			Volatiles VOA 8260 USTI Intended - SW 846 8260B	HOW HOW HOW HOW HOW HOW HOW HOW HOW HOW	ı
40 ml VOA - Coof to 6 C & Ascorbic Acid & HCl	Q .			V.O.A., 0200, 031011668464 - 377 040 02		

Page 14 of 24 Field Results Field Results Volatiles VOA, 8260,-USTUnleaded - SW 846 8260B Volatiles ___VOA, 8260, USTUnleaded - SW 846 8260B Start Date / Time Unassigned Sample Collection, Custom 3 - SL0015 Composite Unassigned Sample Collection, Custom 3 - SL0015 General Method Monitor Well Sampling - N/A General Method Monitor Well Sampling - N/A Analysis - Method Analysis - Method Sample Type Grab Grab Preservation Check Preservation Check Non-potable Non-potable Matrix Sampler's Initials ۵ ω Collect Date/Time In Lab Date/Time: 1/15/16 1520 In Lab Temp: 4.8 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl Suburban Testing Labs. 1037F MacArthur Road Sample Description - Site ID 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI 40 mil VOA - Cool to 6 C & Ascorbic Acid & HCI 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI Reading, PA 19605 Container Type / Preservation Container Type / Preservation 6012049-17 -- Endwall Field Services Field Services S/S 6012049-76 Sample Number

ORDER ID: 6012049

Submitted with COC?	Number of containers match number on COC? 🧳 / N	All Containers in tact?	ests within holding times?	40mL VOA vials free of headspace?	Relinquished by:	Received in Lab by: ** ** ** ** ** ** ** ** ** ** ** ** **
Submitte	Number	All Conta	Tests with	40mL VC	Relinquis	Received

Relinguished Bv:	Date:	Temn (°C).	Sample Conditions	Sample Type Key	Reporting Options
))	, O / A			
	Time:	Acceptable:? Y / N	Submitted with COC? (V) N G = Grab	<u> </u>	SDWA Reporting
Received By:	Date:	Temp (°C):)	8HC = 8 Hr. Composite 24HC = 24 Hr. Composite	PWSID:
	Time:	Acceptable:? Y / N	Acceptable:? Y / N Number of Containers (V/N) Natch Number of COC?		Fax
Relinquished By:	12 Date: 1-14-16	Temp (°C): - 1-3-		Distribution Entry Point	Return a copy of this form with
	Time: ∤¥ç≶	Acceptable:? (V)/ N	O Contrained intends.	Raw Check	Report
Received in Lab By:	Date: (- 1 4 . (5	Temp (°C):	lests within Holding Times? (V) N S = Special	Special	
Of paren	Time: 「年」	Acceptable:? Y / N	Acceptable: $7/N$ VOC Vials Free of Headspace? $0/N$ N $= M$ Maximum Residence	Maximum Residence	
Signing this form indicates/your agreement with STL's Standard Terms and Conditions (www.suburbantestinglabs.com/resources/standard-terms-and-conditions.html) unless otherwise specified in writing	and Conditions (www.suburbantes	inglabs.com/resources/stand	lard-terms-and-conditions.html) unless otherwise specified in writi	itina.	Shaded areas are for SWTL use only

Date Printed: 01/13/2016 Date Created: 01/13/2016 wko_STL_Prelog_ls.rpt

Deborah Hannum



Results Report

Order ID: 6040798

Rettew - Lancaster

3020 Columbia Avenue Lancaster, PA 17603

Project: Herr Foods- Monitoring Wells

Attn: Ed Dziedzic

Regulatory ID:

Sample Number: 6040798-03

Site: MW 3

Sample ID:

Collector: DRC

Collect Date: 04/07/2016 11:34 am

Sample Type: Grab

Collector: Dive	Colle	5Ct Date. 04/07/2	010 11.0 1 am	Je	imple	туре. Стар			
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	11.0	N/A	N/A		1	04/07/16	KAL	04/07/16 11:34	DRC
Static Water Level (ft)	2.55	N/A	N/A		1	04/07/16	KAL	04/07/16 11:34	DRC
Total Volume Purged (gal)	3.20	N/A	N/A		1	04/07/16	KAL	04/07/16 11:34	DRC
Total Well Depth (ft)	25.0	N/A	N/A		1	04/07/16	KAL	04/07/16 11:34	DRC
Well Diameter (in)	2.00	N/A	N/A		1	04/07/16	KAL	04/07/16 11:34	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	160	μg/L	SW 846 8260B	0.5	1	04/19/16	CEM	04/19/16 21:13	CEM
Ethyl Benzene	1110	μg/L	SW 846 8260B	25.0	50	04/19/16	CEM	04/21/16 18:32	CEM
Isopropylbenzene	42.8	μg/L	SW 846 8260B	0.5	1	04/19/16	CEM	04/19/16 21:13	CEM
Methyl-t-butyl ether (MTBE)	1.3	μg/L	SW 846 8260B	0.5	1	04/19/16	CEM	04/19/16 21:13	CEM
Naphthalene	196	μg/L	SW 846 8260B	0.5	1	04/19/16	CEM	04/19/16 21:13	CEM
Toluene	8400	μg/L	SW 846 8260B	25.0	50	04/19/16	CEM	04/21/16 18:32	CEM
1,3,5-Trimethylbenzene	197	μg/L	SW 846 8260B	0.5	1	04/19/16	CEM	04/19/16 21:13	CEM
1,2,4-Trimethylbenzene	514	μg/L	SW 846 8260B	25.0	50	04/19/16	CEM	04/21/16 18:32	CEM
Xylenes, Total	4750	μg/L	SW 846 8260B	50.0	50	04/19/16	CEM	04/21/16 18:32	CEM
Surrogate Recoveries		Results	Units	%Recovery	DF	Method		Limits (%Red	covery)
Surrogate: Dibromofluoromethane		45.4	μg/L	91%	1	SW 846 826	60B	72-136	i
Surrogate: 1,2-Dichloroethane-d4		48.6	μg/L	97%	1	SW 846 826	60B	79-135	i
Surrogate: Toluene-d8		47.5	µg/L	95%	1	SW 846 826	60B	88-112	¥
Surrogate: Bromofluorobenzene		52.0	μg/L	104%	1	SW 846 826	60B	75-117	9

Sample Number: 6040798-04 Collector: DRC	Site: M Collect	W 4 Date: 04/07/20	16 12:14 pm		ample I ample T	D: jype: Grab			
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									

Sampling Depth (ft)

10.0 N/A N/A 04/07/16 KAL 04/07/16 12:14 DRC Static Water Level (ft) 3.08 N/A N/A 04/07/16 04/07/16 12:14 DRC

Report Generated On: 04/25/2016 11:41 am

STL_Results Revision #1.6

Effective: 07/09/2014

6040798





1037F MacArthur Road, Reading, PA 19605 Phone: 800-433-6595

Fax: 610-375-4090 suburbantestinglabs.com



Sample Number: 6040798-04 Site: MW 4 Sample ID:

Collector: DRC Collect Date: 04/07/2016 12:14 pm Sample Type: Grab

Department / Test / Parameter	Result	Units	s	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method (Continued)										
Monitor Well Sampling (Continued)										
Total Volume Purged (gal)	2.60	N/A		N/A		1	04/07/16	KAL	04/07/16 12:14	DRC
Total Well Depth (ft)	19.0	N/A		N/A		1	04/07/16	KAL	04/07/16 12:14	DRC
Well Diameter (in)	2.00	N/A	· ·	N/A		1	04/07/16	KAL	04/07/16 12:14	DRC
<u>Volatiles</u>										
VOA, 8260, USTUnleaded										
Benzene	1170	μg/L	-	SW 846 8260B	10.0	20	04/21/16	CEM	04/21/16 15:48	CEM
Ethyl Benzene	2820	μg/L	-	SW 846 8260B	10.0	20	04/21/16	CEM	04/21/16 15:48	CEM
Isopropylbenzene	79.5	μg/L	-	SW 846 8260B	0.5	1	04/19/16	CEM	04/19/16 21:42	CEM
Methyl-t-butyl ether (MTBE)	1.9	μg/L	-	SW 846 8260B	0.5	1	04/19/16	CEM	04/19/16 21:42	CEM
Naphthalene	313	μg/L	-	SW 846 8260B	10.0	20	04/21/16	CEM	04/21/16 15:48	CEM
Toluene	4870	μg/L	-	SW 846 8260B	10.0	20	04/21/16	CEM	04/21/16 15:48	CEM
1,3,5-Trimethylbenzene	2180	μg/L	-	SW 846 8260B	10.0	20	04/21/16	CEM	04/21/16 15:48	CEM
1,2,4-Trimethylbenzene	1970	μg/L	-	SW 846 8260B	10.0	20	04/21/16	CEM	04/21/16 15:48	CEM
Xylenes, Total	9430	µg/L	-	SW 846 8260B	20.0	20	04/21/16	CEM	04/21/16 15:48	CEM
Surrogate Recoveries		Results		Units	%Recovery	DF	Method		Limits (%Red	covery)
Surrogate: Dibromofluoromethane		35.1	٧	μg/L	70%	1	SW 846 826	60B	72-136	6
Surrogate: 1,2-Dichloroethane-d4		48.6		μg/L	97%	1	SW 846 826	60B	79-135	5
Surrogate: Toluene-d8		42.3	٧	μg/L	85%	1	SW 846 826	60B	88-112	2
Surrogate: Bromofluorobenzene		54.7		μg/L	109%	1	SW 846 826	0B	75-117	7

Sample Number: 6040798-05 Site: MW 5 Sample ID:

Collect Date: 04/06/2016 2:04 nm Sample Type: Grab

Collector: DRC	Collec	t Date: 04/06/2	016 2:04 pm	S	ample T	ype: Grab			
Department / Test / Parameter	Result	Units	Wethod	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	04/06/16	KAL	04/06/16 14:04	DRC
Static Water Level (ft)	4.61	N/A	N/A		1	04/06/16	KAL	04/06/16 14:04	DRC
Total Volume Purged (gal)	2.10	N/A	N/A		1	04/06/16	KAL	04/06/16 14:04	DRC
Total Well Depth (ft)	27.0	N/A	N/A		1	04/06/16	KAL	04/06/16 14:04	DRC
Well Diameter (in)	2.00	N/A	N/A		1	04/06/16	KAL	04/06/16 14:04	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	594	μg/L	SW 846 8260B	5.0	10	04/07/16	CEM	04/13/16 23:58	RCS3
Ethyl Benzene	304	μg/L	SW 846 8260B	5.0	10	04/07/16	CEM	04/13/16 23:58	RCS3
Isopropylbenzene	12.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 14:40	CEM
Methyl-t-butyl ether (MTBE)	10.6	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 14:40	CEM
Naphthalene	36.7	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 14:40	CEM

Report Generated On: 04/25/2016 11:41 am 6040798

> STL_Results Revision #1.6 Effective: 07/09/2014





1037F MacArthur Road, Reading, PA 19605 Phone: 800-433-6595

Fax: 610-375-4090 suburbantestinglabs.com



Sample Number: 6040798-05 Site: MW 5 Sample ID:

Collector: DRC Collect Date: 04/06/2016 2:04 pm Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
Volatiles (Continued)									
VOA, 8260, USTUnleaded (Continued)									
Toluene	155	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 14:40	CEM
1,3,5-Trimethylbenzene	35.2	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 14:40	CEM
1,2,4-Trimethylbenzene	156	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 14:40	CEM
Xylenes, Total	643	μg/L	SW 846 8260B	10.0	10	04/07/16	CEM	04/13/16 23:58	RCS3
Surrogate Recoveries		Results	Units	%Recovery	DF	Method		Limits (%Red	covery)
Surrogate: Dibromofluoromethane		49.3	μg/L	99%	1	SW 846 826	0B	72-136	i .
Surrogate: Dibromofluoromethane		49.2	μg/L	98%	10	SW 846 826	0B	72-136	5
Surrogate: 1,2-Dichloroethane-d4		51.0	μg/L	102%	1	SW 846 826	0B	79-135	j
Surrogate: 1,2-Dichloroethane-d4		48.6	μg/L	97%	10	SW 846 826	0B	79-135	5
Surrogate: Toluene-d8		50.8	μg/L	102%	10	SW 846 826	0B	88-112	
Surrogate: Toluene-d8		50.9	μg/L	102%	1	SW 846 826	0B	88-112	
Surrogate: Bromofluorobenzene		52.7	μg/L	105%	1	SW 846 826	0B	75-117	•
Surrogate: Bromofluorobenzene		51.0	μg/L	102%	10	SW 846 826	0B	75-117	•

Sample Number: 6040798-06 Site: TRIP BLANK DAY 1 OF SAMPLING Sample ID:

Collect Date: 04/05/2016 2:40 pm Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 15:08	CEM
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 15:08	CEM
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 15:08	CEM
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 15:08	CEM
Naphthalene	0.6	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 15:08	CEM
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 15:08	CEM
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 15:08	CEM
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 15:08	CEM
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	04/07/16	CEM	04/07/16 15:08	CEM
Surrogate Recoveries		Results Units %Recovery DF Method		Limits (%Red	covery)				
Surrogate: Dibromofluoromethane		49.6	μg/L	99%	1	SW 846 826	60B	72-136	;
Surrogate: 1,2-Dichloroethane-d4		50.3	µg/L	101%	1	SW 846 8260B		79-135	j
Surrogate: Toluene-d8		49.9	μg/L	100%	1	SW 846 8260B		88-112	<u> </u>
Surrogate: Bromofluorohenzene		50.0	ua/I	100%	1	SW 846 826	SOB	75-117	,

Sample Number: 6040798-08 Site: MW 7 Sample ID:

Collector: DRC Collect Date: 04/07/2016 10:44 am Sample Type: Grab

Department / Test / Parameter Result Units Method R.L. DF Prep Date By Analysis Date By

Report Generated On: 04/25/2016 11:41 am 6040798

STL_Results Revision #1.6 Effective: 07/09/2014







Sample Number: 6040798-08 Site: MW 7 Sample ID:

Collector: DRC Collect Date: 04/07/2016 10:44 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	8.00	N/A	N/A		1	04/07/16	KAL	04/07/16 10:44	DRC
Static Water Level (ft)	4.33	N/A	N/A		1	04/07/16	KAL	04/07/16 10:44	DRC
Total Volume Purged (gal)	2.60	N/A	N/A		1	04/07/16	KAL	04/07/16 10:44	DRC
Total Well Depth (ft)	20.0	N/A	N/A		1	04/07/16	KAL	04/07/16 10:44	DRC
Well Diameter (in)	2.00	N/A	N/A		1	04/07/16	KAL	04/07/16 10:44	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	2770	μg/L	SW 846 8260B	10.0	20	04/19/16	CEM	04/21/16 16:16	CEM
Ethyl Benzene	2050	μg/L	SW 846 8260B	10.0	20	04/19/16	CEM	04/21/16 16:16	CEM
Isopropylbenzene	91.4	μg/L	SW 846 8260B	0.5	1	04/19/16	CEM	04/19/16 22:11	CEM
Methyl-t-butyl ether (MTBE)	0.9	μg/L	SW 846 8260B	0.5	1	04/19/16	CEM	04/19/16 22:11	CEM
Naphthalene	389	μg/L	SW 846 8260B	10.0	20	04/19/16	CEM	04/21/16 16:16	CEM
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/19/16	CEM	04/19/16 22:11	CEM
1,3,5-Trimethylbenzene	373	μg/L	SW 846 8260B	10.0	20	04/19/16	CEM	04/21/16 16:16	CEM
1,2,4-Trimethylbenzene	1680	μg/L	SW 846 8260B	10.0	20	04/19/16	CEM	04/21/16 16:16	CEM
Xylenes, Total	10300	μg/L	SW 846 8260B	20.0	20	04/19/16	CEM	04/21/16 16:16	CEM
Surrogate Recoveries		Results	Units	%Recovery	DF	Method		Limits (%Rec	overy)
Surrogate: Dibromofluoromethane		39.5	μg/L	79%	1	SW 846 826	0B	72-136	i
Surrogate: 1,2-Dichloroethane-d4		43.5	μg/L	87%	1	SW 846 826	0B	79-135	i
Surrogate: Toluene-d8		48.1	μg/L	96%	1	SW 846 826	60B	0B 88-112	
Surrogate: Bromofluorobenzene		52.4	μg/L	105%	1	SW 846 826	60B	75-117	

Sample Number: 6040798-10 Site: MW 9 Sample ID:

Collector: DRC	Collect Date: 04/06/2016 12:28 pm Sample Type: Grab								
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	04/06/16	KAL	04/06/16 12:28	DRC
Static Water Level (ft)	2.05	N/A	N/A		1	04/06/16	KAL	04/06/16 12:28	DRC
Total Volume Purged (gal)	3.70	N/A	N/A		1	04/06/16	KAL	04/06/16 12:28	DRC
Total Well Depth (ft)	20.0	N/A	N/A		1	04/06/16	KAL	04/06/16 12:28	DRC
Well Diameter (in)	2.00	N/A	N/A		1	04/06/16	KAL	04/06/16 12:28	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	5.3	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 15:35	CEM
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 15:35	CEM
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 15:35	CEM

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Sample Number: 6040798-10 Site: MW 9 Sample ID:

Collector: DRC Sample Type: Grab Collect Date: 04/06/2016 12:28 pm

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
Volatiles (Continued)									
VOA, 8260, USTUnleaded (Continued)									
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 15:35	CEM
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 15:35	CEM
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 15:35	CEM
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 15:35	CEM
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 15:35	CEM
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	04/07/16	CEM	04/07/16 15:35	CEM
Surrogate Recoveries		Results	Units	%Recovery	DF	Method		Limits (%Rec	overy)
Surrogate: Dibromofluoromethane		49.1	μg/L	98%	1	SW 846 8260B		72-136	
Surrogate: 1,2-Dichloroethane-d4		51.4	μg/L	103%	1	SW 846 8260B		79-135	
Surrogate: Toluene-d8		50.3	μg/L	101%	1	SW 846 826	0B	88-112	
Surrogate: Bromofluorobenzene		52.6	µg/L	105%	1	SW 846 826	0B	75-117	

Sample Number: 6040798-11 Site: MW 10 Sample ID:

Collector: DRC Collect Date: 04/06/2016 11:34 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	10.0	N/A	N/A		1	04/06/16	KAL	04/06/16 11:34	DRC
Static Water Level (ft)	3.63	N/A	N/A		1	04/06/16	KAL	04/06/16 11:34	DRC
Total Volume Purged (gal)	2.10	N/A	N/A		1	04/06/16	KAL	04/06/16 11:34	DRC
Total Well Depth (ft)	20.0	N/A	N/A		1	04/06/16	KAL	04/06/16 11:34	DRC
Well Diameter (in)	2.00	N/A	N/A		1	04/06/16	KAL	04/06/16 11:34	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	2050	μg/L	SW 846 8260B	5.0	10	04/14/16	CEM	04/14/16 0:26	RCS3
Ethyl Benzene	10.4	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:02	CEM
Isopropylbenzene	28.0	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:02	CEM
Methyl-t-butyl ether (MTBE)	122	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:02	CEM
Naphthalene	62.6	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:02	CEM
Toluene	22.3	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:02	CEM
1,3,5-Trimethylbenzene	4.0	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:02	CEM
1,2,4-Trimethylbenzene	3.0	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:02	CEM
Xylenes, Total	23.9	μg/L	SW 846 8260B	1.0	1	04/07/16	CEM	04/07/16 16:02	CEM
Surrogate Recoveries		Results	Units	%Recovery	DF	Method		Limits (%Rec	overy)
Surrogate: Dibromofluoromethane		48.6	μg/L	97%	1	SW 846 8260B		72-136	ò
Surrogate: 1,2-Dichloroethane-d4		51.3	μg/L	103%	1	SW 846 826	60B	79-135	j
Surrogate: Toluene-d8		50.4	μg/L	101%	1	SW 846 826	60B	88-112	<u>!</u>

Report Generated On: 04/25/2016 11:41 am 6040798

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Sample Number: 6040798-11 Site: MW 10 Sample ID:

Collector: DRC Collect Date: 04/06/2016 11:34 am Sample Type: Grab

Department / Test / Parameter Result Units Method R.L. Prep Date Ву Analysis Date Ву

Volatiles (Continued)

VOA, 8260, USTUnleaded (Continued)

Surrogate: Bromofluorobenzene

Surrogate: Bromofluorobenzene

Surrogate Recoveries (Continued) Results Units DF Method Limits (%Recovery) %Recovery Surrogate: Bromofluorobenzene 51.6 103% SW 846 8260B 75-117 μg/L

Sample Number: 6040798-12 Site: TRIP BLANK DAY 2 OF SAMPLING Sample ID:

Collector: DRC Collect Date: 04/05/2016 2:42 pm Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	< 0.5 H, X	μg/L	SW 846 8260B	0.5	1	04/21/16	CEM	04/21/16 14:53	CEM
Ethyl Benzene	< 0.5 H, Xa	μg/L	SW 846 8260B	0.5	1	04/21/16	CEM	04/21/16 14:53	CEM
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/19/16	CEM	04/19/16 22:40	CEM
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	04/19/16	CEM	04/19/16 22:40	CEM
Naphthalene	< 0.5 H, Xa	μg/L	SW 846 8260B	0.5	1	04/21/16	CEM	04/21/16 14:53	CEM
Toluene	< 0.5 H, Xa	μg/L	SW 846 8260B	0.5	1	04/21/16	CEM	04/21/16 14:53	CEM
1,3,5-Trimethylbenzene	< 0.5 H, Xa	μg/L	SW 846 8260B	0.5	1	04/21/16	CEM	04/21/16 14:53	CEM
1,2,4-Trimethylbenzene	< 0.5 H, Xa	μg/L	SW 846 8260B	0.5	1	04/21/16	CEM	04/21/16 14:53	CEM
Xylenes, Total	< 1.0 H, Xa	μg/L	SW 846 8260B	1.0	1	04/21/16	CEM	04/21/16 14:53	CEM
Surrogate Recoveries	,	Results	Units	%Recovery	DF	Method		Limits (%Rec	overy)
Surrogate: Dibromofluoromethane	ţ	51.4	μg/L	103%	1	SW 846 826	0B	72-136	
Surrogate: Dibromofluoromethane	į	55.7	μg/L	111%	1	SW 846 826	0B	72-136	
Surrogate: 1,2-Dichloroethane-d4	4	19.3	μg/L	99%	1	SW 846 826	0B	79-135	
Surrogate: 1,2-Dichloroethane-d4	,	52.8		106%	1	SW 846 8260B		79-135	
Surrogate: Toluene-d8	į.	50.4	μg/L μg/L	101%	1	SW 846 8260B		88-112	
Surrogate: Toluene-d8	į	50.7	μg/L	101%	1	SW 846 826	0B	88-112	

Site: MW 11 Sample Number: 6040798-13 Sample ID:

Collector: DRC Collect Date: 04/07/2016 9:54 am Sample Type: Grab

49.8

48.2

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	11.5	N/A	N/A		1	04/07/16	KAL	04/07/16 9:54	DRC
Static Water Level (ft)	0.340	N/A	N/A		1	04/07/16	KAL	04/07/16 9:54	DRC
Total Volume Purged (gal)	2.60	N/A	N/A		1	04/07/16	KAL	04/07/16 9:54	DRC
Total Well Depth (ft)	12.5	N/A	N/A		1	04/07/16	KAL	04/07/16 9:54	DRC

μg/L

μg/L

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SW 846 8260B

SW 846 8260B



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100%

96%

75-117

75-117



Sample Number: 6040798-13 Site: MW 11 Sample ID:

Collector: DRC Collect Date: 04/07/2016 9:54 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method (Continued)									·
Monitor Well Sampling (Continued)									
Well Diameter (in)	2.00	N/A	N/A		1	04/07/16	KAL	04/07/16 9:54	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	19.4	μg/L	SW 846 8260B	0.5	1	04/19/16	CEM	04/21/16 15:20	CEM
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/19/16	CEM	04/21/16 15:20	CEM
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/19/16	CEM	04/21/16 15:20	CEM
Methyl-t-butyl ether (MTBE)	19.4	μg/L	SW 846 8260B	0.5	1	04/19/16	CEM	04/21/16 15:20	CEM
Naphthalene	0.7	μg/L	SW 846 8260B	0.5	1	04/19/16	CEM	04/21/16 15:20	CEM
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/19/16	CEM	04/21/16 15:20	CEM
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/19/16	CEM	04/21/16 15:20	CEM
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/19/16	CEM	04/21/16 15:20	CEM
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	04/19/16	CEM	04/21/16 15:20	CEM
Surrogate Recoveries		Results	Units	%Recovery	DF	Method		Limits (%Red	overy)
Surrogate: Dibromofluoromethane		51.8	μg/L	104%	1	SW 846 8260B		72-136	i
Surrogate: 1,2-Dichloroethane-d4		52.2	μg/L	104%	1	SW 846 8260B		79-135	i
Surrogate: Toluene-d8		50.2	μg/L	100%	1	SW 846 8260B		88-112	
Surrogate: Bromofluorobenzene		49.8	μg/L	100%	1	SW 846 826	0B	75-117	

Sample Number: 6040798-14 Site: MW 12 Sample ID:

Collector: DRC Collect Date: 04/06/2016 10:08 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	9.00	N/A	N/A		1	04/06/16	KAL	04/06/16 10:08	DRC
Static Water Level (ft)	2.09	N/A	N/A		1	04/06/16	KAL	04/06/16 10:08	DRC
Total Volume Purged (gal)	2.60	N/A	N/A		1	04/06/16	KAL	04/06/16 10:08	DRC
Total Well Depth (ft)	12.0	N/A	N/A		1	04/06/16	KAL	04/06/16 10:08	DRC
Well Diameter (in)	2.00	N/A	N/A		1	04/06/16	KAL	04/06/16 10:08	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/14/16	CEM	04/14/16 1:20	RCS3
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:30	CEM
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:30	CEM
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:30	CEM
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/14/16	CEM	04/14/16 1:20	RCS3
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:30	CEM
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:30	CEM

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Sample Number: 6040798-14 Site: MW 12 Sample ID:

Collector: DRC Collect Date: 04/06/2016 10:08 am Sample Type: Grab

					•				
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
Volatiles (Continued)									
VOA, 8260, USTUnleaded (Continued)									
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:30	CEM
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	04/07/16	CEM	04/07/16 16:30	CEM
Surrogate Recoveries		Results	Units	%Recovery	DF	Method		Limits (%Rec	overy)
Surrogate: Dibromofluoromethane		50.2	μg/L	100%	1	SW 846 8260B		72-136	
Surrogate: 1,2-Dichloroethane-d4		51.1	μg/L	102%	1	SW 846 8260B		79-135	
Surrogate: Toluene-d8		49.9	μg/L	100%	1	SW 846 8260B		88-112	
Surrogate: Bromofluorobenzene	51.0		μg/L	102%	1	SW 846 826	0B	75-117	

Sample Number: 6040798-15 Site: MW 13 Sample ID:

Collector: DRC Collect Date: 04/06/2016 10:44 am Sample Type: Grab

Collector: Divo		ect Date. 04/00/	2010 10.44 am		inpie	rype. Grab			
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	9.00	N/A	N/A		1	04/06/16	KAL	04/06/16 10:44	DRC
Static Water Level (ft)	3.98	N/A	N/A		1	04/06/16	KAL	04/06/16 10:44	DRC
Total Volume Purged (gal)	2.10	N/A	N/A		1	04/06/16	KAL	04/06/16 10:44	DRC
Total Well Depth (ft)	12.0	N/A	N/A		1	04/06/16	KAL	04/06/16 10:44	DRC
Well Diameter (in)	2.00	N/A	N/A		1	04/06/16	KAL	04/06/16 10:44	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:57	CEM
Ethyl Benzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:57	CEM
Isopropylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:57	CEM
Methyl-t-butyl ether (MTBE)	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:57	CEM
Naphthalene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:57	CEM
Toluene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:57	CEM
1,3,5-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:57	CEM
1,2,4-Trimethylbenzene	< 0.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 16:57	CEM
Xylenes, Total	< 1.0	μg/L	SW 846 8260B	1.0	1	04/07/16	CEM	04/07/16 16:57	CEM
Surrogate Recoveries		Results	Units	%Recovery	DF	Method		Limits (%Red	covery)
Surrogate: Dibromofluoromethane		49.6	μg/L	99%	1	SW 846 826	50B	72-136	;
Surrogate: 1,2-Dichloroethane-d4		50.9	μg/L	102%	1	SW 846 826	60B	79-135	i
Surrogate: Toluene-d8		49.7	μg/L	99%	1	SW 846 826	60B	88-112	}
Surrogate: Bromofluorobenzene		51.0	μg/L	102%	1	SW 846 826	60B	75-117	

Report Generated On: 04/25/2016 11:41 am 6040798

STL_Results Revision #1.6 Effective: 07/09/2014







Sample Number: 6040798-16 Site: SW Sample ID:

Collector: DRC Collect Date: 04/06/2016 1:14 pm Sample Type: Grab

\$300 \(\text{SSEQUESTED BY MEDICATION \(\text{COLORS}\) \(\text{App. COLORS}\) \(\text{App. COLORS}\)	SHARCISA	ortinectomic control of the second of the s				dispression (A) (A) ■ and an applicable (A) ■ (A) (A) (A) (A) (A) (A) (A) (A) (A) (A)			
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
General Method									
Monitor Well Sampling									
Sampling Depth (ft)	100	N/A	N/A		1	04/06/16	KAL	04/06/16 13:14	DRC
Static Water Level (ft)	5.31	N/A	N/A		1	04/06/16	KAL	04/06/16 13:14	DRC
Total Volume Purged (gal)	2.60	N/A	N/A		1	04/06/16	KAL	04/06/16 13:14	DRC
Total Well Depth (ft)	Unknown	N/A	N/A		1	04/06/16	KAL	04/06/16 13:14	DRC
Well Diameter (in)	6.00	N/A	N/A		1	04/06/16	KAL	04/06/16 13:14	DRC
<u>Volatiles</u>									
VOA, 8260, USTUnleaded									
Benzene	2310	μg/L	SW 846 8260B	5.0	10	04/14/16	CEM	04/14/16 0:53	RCS3
Ethyl Benzene	1280	μg/L	SW 846 8260B	5.0	10	04/14/16	CEM	04/14/16 0:53	RCS3
Isopropylbenzene	33.4	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 17:24	CEM
Methyl-t-butyl ether (MTBE)	47.5	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 17:24	CEM
Naphthalene	118	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 17:24	CEM
Toluene	4730	μg/L	SW 846 8260B	5.0	10	04/14/16	CEM	04/14/16 0:53	RCS3
1,3,5-Trimethylbenzene	120	μg/L	SW 846 8260B	0.5	1	04/07/16	CEM	04/07/16 17:24	CEM
1,2,4-Trimethylbenzene	518	μg/L	SW 846 8260B	5.0	10	04/14/16	CEM	04/14/16 0:53	RCS3
Xylenes, Total	3160	µg/L	SW 846 8260B	10.0	10	04/14/16	CEM	04/14/16 0:53	RCS3
Surrogate Recoveries		Results	Units	%Recovery	DF	Method		Limits (%Red	covery)
Surrogate: Dibromofluoromethane		45.3	μg/L	91%	1	SW 846 826	0B	72-136	5
Surrogate: 1,2-Dichloroethane-d4		49.3	μg/L	99%	1	SW 846 826	0B	79-135	5
Surrogate: Toluene-d8		50.3	μg/L	101%	1	SW 846 826	0B	88-112	
Surrogate: Bromofluorobenzene		53.0	μg/L	106%	1	SW 846 826	0B	75-117	

Data Qualifiers:

Н Hold time was exceeded for this analysis.

The surrogate associated with this sample was not within the established acceptance criteria. X Sample was reanalyzed outside of hold time due to suspected carryover in original analysis. Xa Sample was reanalyzed outside of hold time due to suspected carryover in the original analysis.

Report Generated On: 04/25/2016 11:41 am 6040798

> Effective: 07/09/2014 STL_Results Revision #1.6





^{**} This report has been Amended (Rev1) and replaces all previous reports for this order ID **



All results meet the requirements of STL's TNI (NELAC) Accredited Quality System unless otherwise noted. If your results contain any data qualifiers or comments, you should evaluate useability relative to your needs.

Deboat M. Hannum

If collectors initials include "STL", samples have been collected in accordance with STL SOP SL0015.

All results reported on an As Received (Wet Weight) basis unless otherwise noted.

This laboratory report may not be reproduced, except in full, without the written approval of STL.

Results are considered Preliminary unless report is signed by authorized representative of STL.

Reviewed and Released By:

Deborah Hannum Project Manager

Report Generated On: 04/25/2016 11:41 am

STL_Results Revision #1.6

6040798

Effective: 07/09/2014





Chain of Custody Record

1037F MacArthur Road, Reading, PA 19605 Phone: 610-375-8378 - Fax: 610-375-4090 - suburbantestinglabs.com

TAT (Circle One): Standard - 24hr - 48hr - 72hr - Other (Additional charges may apply for rush TAT. If not specified, standard TAT will apply.)

ORDER ID: 6040798

Client Name / Address:		
Rettew - Lancaster 3020 Columbia Avenue Lancaster, PA 17603	Phone: (717) 394-1063 Fax:	Project Name / Address: Herr Foods- Monitoring Wells
Client Project Manager: Ed Dziedzic		Payment / P.O. Info:

Order Comments: Monitoring Well Collection = \$65/hour; Travel time to/from site = \$40/hour; Equipment Rental = \$115 flat fee per event;

Project Description:

_	7	_][_	7			Г	71	7	1		_	7	T	Ī	
Composite	Start Date / Ilme	Field Results					Field Results					Field Results			
Sample	Grah	900		0015	46 8260B	Grab	The state of the s		46 8260B	/	Grab			6 8260B	
Matrix	Non-potable	Analysis Method	General Method Monitor Well Sampling - N/A	Unassigned Sample Collection, Custom 3 - SL0015 Volatiles	8260, USTUnleaded SW 8	Non-potable	Analysis - Method	General Method Monitor Well Sampling - N/A	Volatiles VOA, 8260; USTUnleaded - SW 846 8260B		Non-potable	Analysis - Method	General Method Monitor Well Sampling - N/A	viatiles VOA, 8260, USTUnleaded - SW 846 8260B	
Sampler's Initials		Analys	Gener	Unass Sam Volatil	VOA		Analysi	Gener	Volatil VOA,		DRC	Analysi	Genera	Volatiles VOA, 826	
Collect Date/Time		eservation Check					Preservation Check				4716 1134	Preservation Check			
Sampling Location		Pr	A G G G G G G G G G G G G G G G G G G G		D	70 A (1) A (1)	Pro-	A	B same and a same and a same and a same and a same and a same and a same and a same a	0 0		Pre	< □ α	0	Q
	6040798-01 MW 1	Container Type / Preservation	Trisid Services 40 ml VOA - Cool to 6 C & Ascorbio Acid & HCl	40 ml VOA - Cool to 6 C & Ascorbig Aert & HCL	OA - Cool to 6 C & Ascorb	6040798-02 MW 2	Container Type / Preservation	40 ml VOA - Cool to 6 C & Associated Asia 9 1101	40 ml VOA - Cool to 6 C & Ascarbis Aeir & HCI	40 ml VOA - Cool to 6 C & Ascorbje Acid & HGI	6040798-03 MW 3	Field Services	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	40 ml VOA - Cool to 6 C & Ascorbić Acid & HCl

Date Created: 03/30/2016

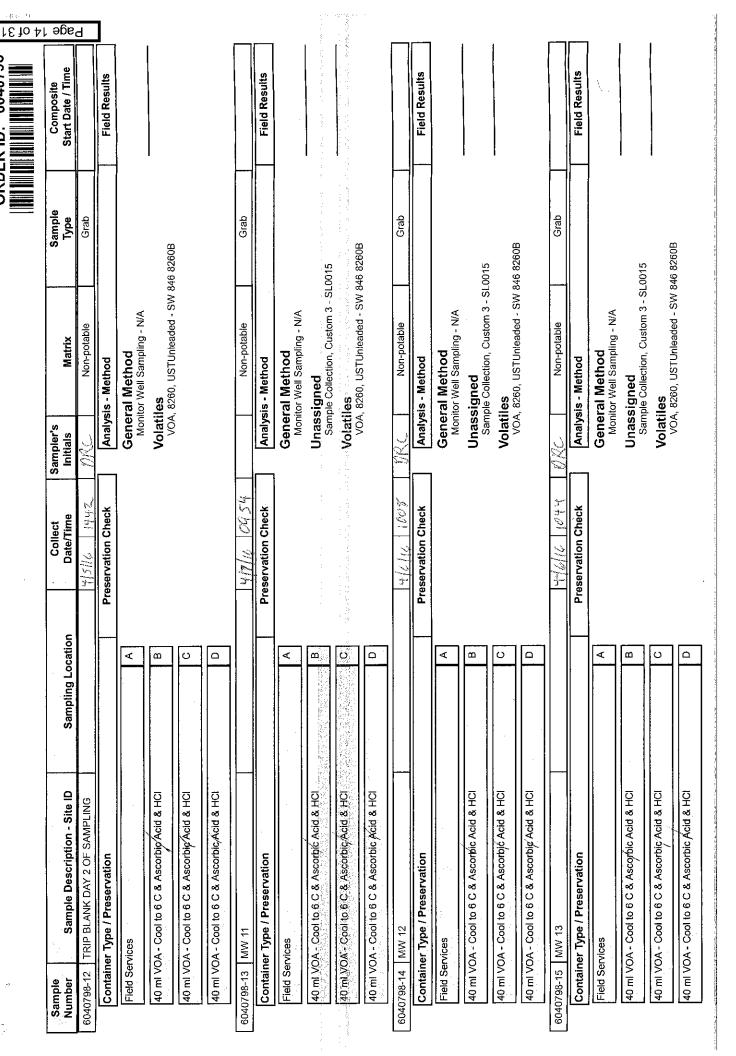
Sample Sample Description - Site ID	Sampling Location	Collect Date/Time	Sampler's Initials	Matrix	Sample	Composite Start Date / Time
6040798-04 MW 4		H1 61 91/4		Non-potable	Grab	
Container Type / Preservation		Preservation Check	Analysis - Method			Field Results
Field Services	A		General Method	D V/V		
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	В		Volatiles			
40 ml VOA - Cool to 6 C & Ascorpic Acid & HCI	O		VOA, 8260, USTUNICAGEG - SW 846 8260B	Inleaded - SW 846 8	260B	
40 ml VOA - Cool to 6 C & Ascorbic Acid & HC!	0					
6040798-05 MW 5		4041 7/9/h	Non Non-	Non-potable	Grab	
Container Type / Preservation		Preservation Check	Analysis - Method			Field Results
Field Services	A		General Method	\$ 10 00 00 00 00 00 00 00 00 00 00 00 00		
40 ml VOA . Cool to 6 C & Ascorbic Acid & HCl	a		Volatiles	CAL - Billion		
40 ml VOA - Cool to 6 C & Associatic Acid & HCI	0		VOA, 8260, USTU	VOA, 8260, USTUnleaded - SW 846 8260B		The second of th
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	Ω					
6040798-06 TRIP BLANK DAY 1 OF SAMPLING		011 2/15	Non-	Non-potable	Grab	
Container Type / Preservation		Preservation Check	Analysis - Method			Field Results
Field Services	A		General Method	D Alva		
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	a		Volatiles	V31 - Dillid	1	
40 ml VOA - Coal to 6 C & Ascorbić Acid & HCI	U		VOA, 8260, USTUnleaded - SW 846 8260B	Inleaded - SW 846 8	260B	
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	D					
6040798-07 MAY 6			Non-	Non-potable	Grab	
Container Type / Preservation		Preservation Check	Analysis - Method			Field Results
Field Services	A	The state of the s	General Method Monitor Well Sampling - N/A	d plina - N/A		
40 ml VOA - Cool to 6 C & Ascorbio Acid & HCI	B		Volatiles	Matiles		
40 ml VOA - Cool to 6 C & Ascorbic/Acid & HCI	O		VOA, 020U, U31U	meaded - SVV 640 o	ZeuB	

40 mil VOA - Cool to 6 C & Ascorbic Acid & HCI

Deborah Hannum

ORDER ID: 6040798	Composite Start Date / Time		Field Results						Field Results						Field Results						Field Results				
ORD	Sample Type	Grab				46 8260B		Grab				46 8260B		Grab				46 8260B		Grab				t6 8260B	
	Matrix	Non-potable	Analysis - Method	General Method	Kyri Sainding Say	VOA, 8260, USTUnleaded - SW 846 8260B		Non-potable	Analysis - Method	General Method Monitor Well Sampling - N/A		VOA, 826U, US I UNIEAGG - SW 846 8260B		Non-potable	- Method	General Method Monitor Well Sampling - N/A	Volatiles	260, USTUnleaded - SW 84		Non-potable	- Method	General Method Monitor Well Sampling - N/A	Volatiles	ou, us l'unieaded - sw 82	
	Sampler's Initials	WRC	Analysis	General	Volatile	VOA, 8.			Analysis	General	Volatiles	VOA, 82		MAC	Analysis - Method	General	Volatiles	VOA, 82		DKC	Analysis - Method	General	Volatiles	VOA, 92	
	Collect Date/Time	711 911 15 H	Preservation Check						Preservation Check	Control of the second of the s				4616 1228	Preservation Check	5 5 5		·	. **	46/10 1134	Preservation Check				
	Sampling Location			A	В	O	D			A	\ <u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>	3	Q			A	Φ.	O	Q			A	В	O	Q
المر المر		98-08 MW 7	Container Type / Preservation	Field Services	40 ml VOA - Cool to 6 C & Ascorbic Apid & HCl	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	6040798-09 MW 8	Container Type / Preservation	Field Services	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	40 ml VOA - Cool to 6 C & Ascorbie Actor & HCI	40.ml-VOA - Cool to 6 C & Ascorbig Acid & HCI	6040798-10 MW 9	Container Type / Preservation	Field Services	40 ml VOA - Cool to 6 C & Ascorbig/Acid & HCI	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	8-11 MW 10	Container Type / Preservation	Field Services	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl
	Number	6040798-08	ا ت	<u> </u>	4	<u> 4</u>	Ĭ <u>Ą</u>	60407	ŭ	<u>u. </u>	<u> </u> 4≪	8	4	604079	<u></u>	<u>ਛੱ</u> ਾ	40	4	6	6040798-11	ပိ	E.	40	4	9

Date Printed: 03/30/2016



ORDER ID: 6040798

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		-			ORD	ORDER ID: 6040798	15 of 31
Sample Number Sample Description - Site ID	Sampling Location	Collect Date/Time	Sampler's Initials	Matrix	Sample Type	Composite Start Date / Time	ඉරිළ
6040798-16 SW		416/16 11314	MC	Non-potable	Grab		d
Container Type / Preservation		reservation Check	Analysi	Analysis - Method		Field Results]
Field Services	A		Genera	General Method Monitor Well Sampling - N/A			
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	В		Unassigned	igned	!		
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	O		Sample C	Sample Collection, Custom 3 - SL0015 Vatiles	015		
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	D		VOA,	VOA, 8260, USTUnleaded - SW 846 8260B	6 8260B		
6040798-17				Non-potable	Grab		
Container Type / Preservation	d	reservation Check	Analysi	Analysis - Method		Field Results	
Field Services 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI 40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI Suburban Testing Labs. 1037F MacArthur Road Reading, PA 19605 Reading, PA 19605 Number of containers match number on COC? Number of containers match number on COC? All Containers in tac? Tests within holding times? 40mL VOA vials free of headspace? Received in Lab hy.	b Temp: 4. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8.		General I Monitor V Unassign Sample C Vol., 826	General Method Monitor Well Sampling - N/A Unassigned Sample Collection, Custom 3 - SL0015 Volatiles VoA, 8269, USTUnleaded - SW 846 8260B	6 8260B		

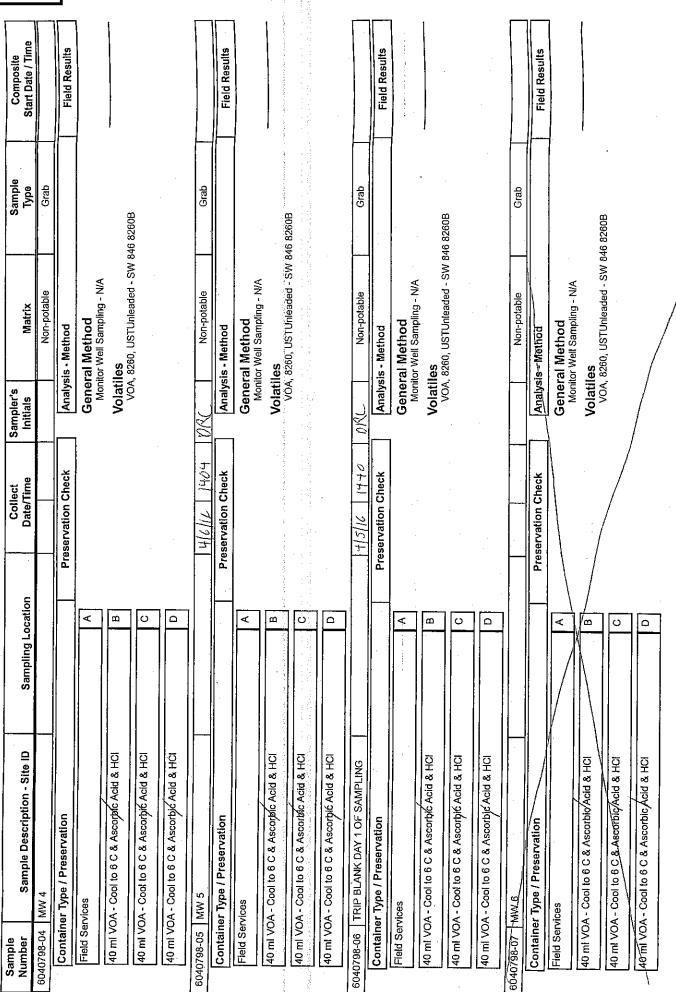
Relinquished By:	Date:	Temp (°C):	Sample Conditions	Sample Type Key	Reporting Options	
	Time:	Acceptable:? Y / N	Submitted with COC? (Y) N	(V)/N G = Grab	SDWA Reporting	
Received By:	Date:	Temp (°C):		8HC = 8 Hr. Composite	PWSID:	
	Time:	Acceptable:? Y / N	Number of Containers Match Number of COC2		Fax	
			Match Mailings of COC!	D = Distribution	Email	
Relinquished By:	Date: '∀ (∅ (७	Temp (°C): 4.₺	All Containers Infact?	S E = Entry Point	Return a copy of this form with	
	Time: 15 %	Acceptable:? (%)/ N		D R = Raw	Report	
Received in Lab By:	Date: 4////	Temp (°C).	Tests within Holding Times? (%) N	A S = Special	Officer	
		()	The state of the s	M. E. Maximum-Basidanca	The state of the state of the state of the content of the state of the	-
	Time: 75,35	Acceptable: 77/14	cceptable: 7 Y/ N VOC Vials Free of Headspace? (Y// N			
Signing this form indicates your agreement with STL's Standard Terms and Conditions (www suburbantestinglabs.com/resources/standard-terms-and-conditions.html) unless otherwise specified in writing.	ns and Conditions (www.suburbantea	stinglabs.com\resources\stand	ard-terms-and-conditions,html) unless otherwise spe	scified in writing.	Shaded areas are for SWTL use only	

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6040798

ORDER ID:

Page 2 of 5



ORDER ID: 6040798

Sample Sample Description - Site ID	Sampling Location	Collect Date/Time	Sampler's Initials	Matrix	Sample Type	Composite Start Date / Time
8 MW 7				Non-potable	Grab	
╢≝		Preservation Check	Analys	Analysis - Method		Field Results
Field Services	A		Genei	General Method Monitor Well Sampling - N/A		
40 ml VOA - Cool to 6 C & Ascorbic Apid & HCI	В		Volati	Volatiles VOA. 8260. USTUnieaded - SW 846 82608	46 8260B	-
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	O					-
40 ml VOA - Cool to 6 C & Ascorbic Agid & HCI	D			ē		
6040798-09-MW 8				Non-potable	Grab	
Container Type / Preservation		Preservation Check	Analys	Analysis - Method		Field Results
Field Services	\ \ \ \		Gene	General Method Monitor Well Sampling - N/A		
40 ml VOA - Cool to 6 C & Ascorbjé Acid & HCl	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		Volati	Volatiles VOA 8260 USTUnleaded - SW 846 8260B	46 8260B	
40 ml VOA - Cool to 6 C & Ascorbig Actd & HCI	0					
40 ml-VOA - Cool to 6 C & Ascorbig Acid & HCI	D		1			
6040798-10 MW 9		4/6/16 1228	NRC	Non-potable	Grab	
Container Type / Preservation		Preservation Check	Analy	Analysis - Method		Field Results
Field Services	A	;	Gene	General Method Monitor Well Sampling - N/A		
40 ml VOA - Cool to 6 C & Ascorbig Acid & HCl	В		Volati ∨OA	Volatiles VOA 8260 USTUnleaded - SW 846 8260B	46 8260B	
40 ml VOA - Coal to 6 C & Ascorbic Acid & HCl	0	· .				
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	D	. •				
6040798-11 MW 10		4/0/10 1 1134	DRC	Non-potable	Grab	
Container Type / Preservation		Preservation Check	Analy	Analysis - Method		Field Results
Field Services	A		Gene	General Method Monitor Well Sampling - N/A		
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	В	i.	Volati ∨o	Volatiles VOA, 8260, USTUnleaded - SW 846 8260B	346 8260B	
40 ml VOA - Cool to 6 C & Ascorbio Acid & HCl	O					
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	Q					

Sample Composite Type Start Date / Time	Grab	Field Results	1	EUG.			Grab	Field Results			ARMS CONTRACTOR CONTRA	
Matrix	Non-potable	Analysis - Method	General Method Monitor Well Sampling - N/A				Non-potable	Analysis - Method	General Method Monitor Well Sampling - N/A	Unassigned Sample Collection Custom 3 - St 0015	olatiles	, ozoo, co l'oineaded - cre e la
Sampler's Initials	DRC	Analys	Gener	Volatiles				Analys	Gener	Unass	Volatiles	Š
Collect Date/Time	4/5/16 1442	Preservation Check		•	٠			Preservation Check				
Sampling Location		Į.	A	æ	O	Q		P	A	В	C	C
Sample Description - Site ID	TRIP BLANK DAY 2 OF SAMPLING	Container Type / Preservation	ices	40 ml VOA - Cool to 6 C & Ascorbig/Acid & HCl	40 ml VOA - Cool to 6 C & Ascorbig/Acid & HCl	40 ml VOA - Cool to 6 C & Ascarbic,Acid & HCi	MW 11	Container Type / Preservation	rices	40 ml VOA - Cool to 6 C & Ascorpic Acid & HCl	40 ml VOA - Gool to 6 C & Ascorbig/Acid & HCl	On a bight of the order of the order
Sample Number	2	Container	Field Services	40 ml VO	40 ml VO/	40 ml VO/	6040798-13 MW 11	Container	Field Services	40 ml VO/	40 ml VO/	7071-07

6040798-14 MW 12	2001 71712	例名 Non-potable Grab	
Container Type / Preservation	Preservation Check	Analysis - Method	Field Results
Field Services	A	General Method Monitor Well Sampling - N/A	
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	<u>B</u>	Unassigned Sample Collection Custom 3 - SL0015	
40 ml VOA - Cool to 6 C & Ascorbj6 Acid & HCl	0	Volatiles Volatiles	
40 ml VOA - Cool to 6 C & Ascorbig/Acid & HCl	Q	VO7, 5200, 001 Oilligaugu - 01V 010 02000	
6040798-15 MW 13	110/10/14	り名と Non-potable Grab	
Container Type / Preservation	Preservation Check	Analysis - Method	Field Results
Field Services	A	General Method Monitor Well Sampling - N/A	١.
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	В	Unassigned Sample Collection Custom 3 - SI 10045	
40 ml VOA - Cool to 6 C & Ascorbic/Acid & HCl	O	Volatiles VOA 8-66 HSTI Integrated - SW 846 8280B	
40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	Q	מספים הנה אם המספים הנה אם המספים הנה אם המספים הנה אם המספים המספים המספים המספים המספים המספים המספים המספים	

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Date Printed: 03/30/2016

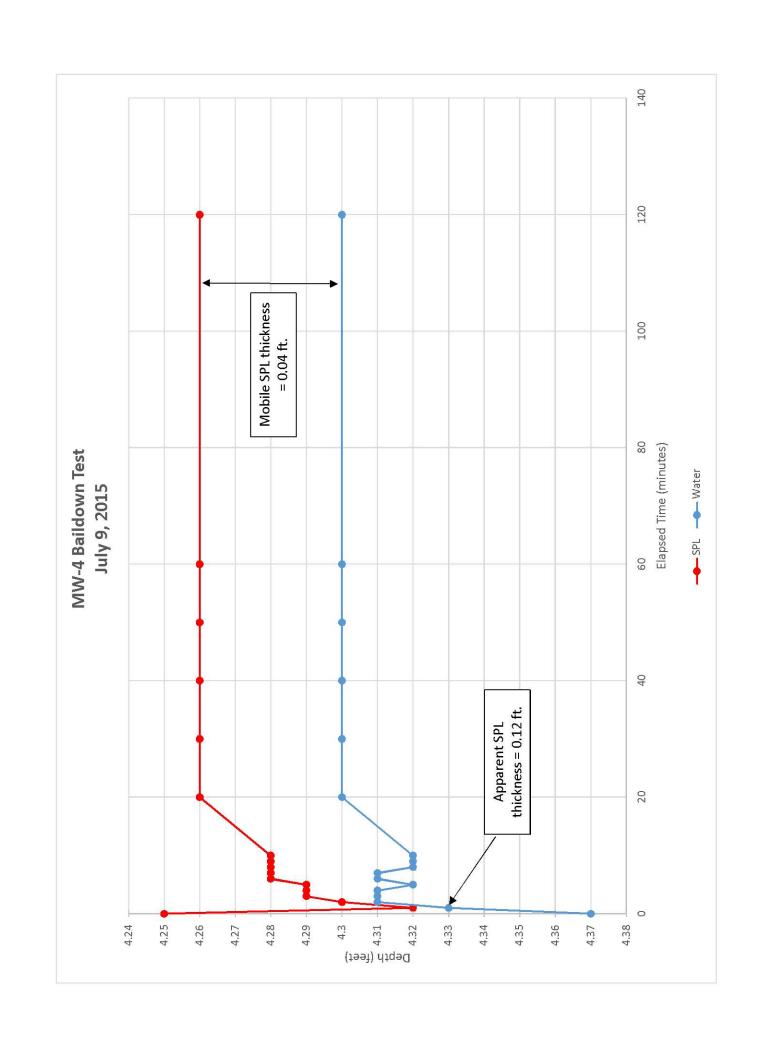
Date Created: 03/30/2016

ORDER ID: 6040798

Sa	Sample		Collect	Sampler's		Sample	Composite
N	Number Sample Description - Site ID	Sampling Location	Date/Time	Initials	Matrix	Type	Start Date / Time
604C	6040798-16 SW		HEI 21/2/H	MC	Non-potable	Grab	
	Container Type / Preservation	ld l	Preservation Check	Analysis	Analysis - Method		Field Results
	Field Services	A		Genera	General Method Monitor Well Sampling - N/A		
	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	Ø		Unassigned	nassigned	0.4 %	
	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	O		Volatiles	Societifit, Custoff 5 - Cro		
- /	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCI	Ω		VOA,	VOA, 8260, USTUNICAGEG - SW 846 8260B	6 8200B	
604C	6040788-17- Endwall				Non-potable	Grab	
	Container Type / Preservation	P ₁	Preservation Check	Analysis	Analysis - Method		Field Results
	Field Services	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		Genera	General Method Monitor Well Sampling - N/A		
	40 ml VOA - Cool to 6 C & Ascorbic, Acid & HCI	8		Unassi	Unassigned Samp Collection Ouston 3, St 0015	0,45 	
	40 ml VOA - Cool to 6 C & Ascorbic Acid & HCl	(C)		Volatiles	Jatiles	S S S S S S S S S S S S S S S S S S S	
	40 TIT VOA - Cool to 6 C & Ascorbic Acid & HCI	Q		Š	to vic - paragraph of the control of		
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APPENDIX H Baildown Test Data Plots



APPENDIX I SPL Sample Laboratory Analytical Report

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

July 21, 2015

Project: Herr Foods Inc.

Submittal Date: 07/09/2015 Group Number: 1575572 PO Number: 101722001 State of Sample Origin: PA

Client Sample Description

MW-4 SPL Grab SPL

Lancaster Labs (LL) #

7960539

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/.

ELECTRONIC COPY TO

Rettew Associates

Attn: Ed Dziedzic

Respectfully Submitted,

Stacy L. Butt Specialist

(717) 556-7236



Lancaster Laboratories Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

by EGD

Sample Description: MW-4 SPL Grab SPL

HERR FOODS INC.

LL Sample # G5 7960539 LL Group # 1575572 Account # 00721

Heather E Williams 100

Project Name: Herr Foods Inc.

Collected: 07/09/2015 09:05 through 07/09/2015 11:35 Submitted: 07/09/2015 13:30 Reported: 07/21/2015 14:46 Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

M4SPL

02535

Quantitative GC

Fingerprint

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor					
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg						
10237	Benzene	71-43-2	600,000	10,000	20000					
10237	Ethylbenzene	100-41-4	12,000,000	200,000	200000					
10237	Isopropylbenzene	98-82-8	1,300,000	20,000	20000					
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	10,000	20000					
10237	Naphthalene	91-20-3	380,000	20,000	20000					
10237	Toluene	108-88-3	22,000,000	200,000	200000					
10237	1,2,4-Trimethylbenzene	95-63-6	38,000,000	200,000	200000					
10237	1,3,5-Trimethylbenzene	108-67-8	12,000,000	200,000	200000					
10237	Xylene (Total)	1330-20-7	59,000,000	200,000	200000					
GC Pet	croleum SW-846	8015B modified	see below	see below						
Hydrod	carbons									
02535	Quantitative GC Fingerprint	n.a.	N.D.	100	100					
	Quantitative GC Fingerprint n.a. N.D. 100 100 The GC Fingerprint for this sample is most similar to our Gasoline reference standard. Based on relative peak intensities and ratios, the product in this sample does not appear to be weathered. When we calculate total sample area in the C8-C40 normal hydrocarbon range as petroleum distillate, it is present at 56% by weight.									

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

SW-846 8015B

modified

Laboratory Sample Analysis Record Method CAT Analysis Name Trial# Batch# Analysis Analyst Dilution Date and Time Factor 10237 PA Unleaded/Diesel 8260B SW-846 8260B Q151951AA 07/14/2015 15:49 Sarah A Guill 20000 10237 PA Unleaded/Diesel 8260B 200000 SW-846 8260B 0151951AA 07/14/2015 16:12 Sarah A Guill SW-846 5030B Q151951AA Sarah A Guill 00373 DP 21 Bulk Prep of Oil 07/13/2015 10:02 Samples

151960036A

07/15/2015 22:43

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Quality Control Summary

Client Name: Rettew Associates Group Number: 1575572

Reported: 07/21/2015 14:46

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD <u>Max</u>
								
Batch number: Q151951AA	Sample numl	oer(s): 79	60539					
Benzene	N.D.	250.	ug/kg	91	94	80-120	4	30
Ethylbenzene	N.D.	500.	ug/kg	85	87	80-120	2	30
Isopropylbenzene	N.D.	500.	ug/kg	81	84	76-120	4	30
Methyl Tertiary Butyl Ether	N.D.	250.	ug/kg	89	93	72-120	5	30
Naphthalene	N.D.	500.	ug/kg	81	88	64-120	8	30
Toluene	N.D.	500.	ug/kg	90	93	80-120	3	30
1,2,4-Trimethylbenzene	N.D.	500.	uq/kq	84	87	79-120	4	30
1,3,5-Trimethylbenzene	N.D.	500.	ug/kg	82	86	78-120	5	30
Xylene (Total)	N.D.	500.	ug/kg	85	87	80-120	2	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PA Unleaded/Diesel 8260B

Batch number: Q151951AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene	
7960539	82	78	89	92	
Blank	87	92	85	82	
LCS	93	97	90	87	
LCSD	97	102	95	91	
Limits:	50-141	54-135	52-141	50-131	

Analysis Name: Quantitative GC Fingerprint

Batch number: 151960036A Chlorobenzene

Batti IIuii	Chlorobenzene	Orthoterphenyl
7960539	103	104
Limits:	50-150	50-150

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

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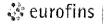
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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client. (If yes, indicate QC sample and submit triplicate sample volume.)

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Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID:

85298

Group Number(s): 1575572

Client: Rettew Assoc.

Delivery and Receipt Information

Delivery Method:

Client Drop Off

Arrival Timestamp:

07/09/2015 13:30

Number of Packages:

1

Number of Projects:

1

Arrival Condition Summary

Shipping Container Sealed:

Yes

Sample IDs on COC match Containers:

Yes

Custody Seal Present:

Νo

Yes

Samples Chilled:

Yes

VOA Vial Headspace ≥ 6mm:

Sample Date/Times match COC:

N/A

Paperwork Enclosed:

Yes

Total Trip Blank Qty:

0

Samples Intact:

Yes

Air Quality Samples Present:

No

Missing Samples:

No

Extra Samples:

No

Discrepancy in Container Qty on COC:

No

Unpacked by Timothy Cubberley (6520) at 13:48 on 07/09/2015

Samples Chilled Details

DT = Digital (Temp. Bottle)

IR = Infrared (Surface Temp)

All Temperatures in °C.

<u>Samples</u>

Cooler # Thermometer ID

Corrected Temp

Therm. Type

Ice Type

Ice Present?

Ice Container

Elevated Temp?

Collected Same Day as Receipt?

1

DT131

Thermometer Types:

7.6

DT

Wet

Bagged

Y



Lancaster Laboratories Environmental

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

Reporting Limit none detected Too Numerous To Count International Units micromhos/cm degrees Celsius milliequivalents gram(s) microgram(s) milliliter(s) cubic meter(s)	BMQL MPN CP Units NTU ng F Ib. kg mg L	Below Minimum Quantitation Level Most Probable Number cobalt-chloroplatinate units nephelometric turbidity units nanogram(s) degrees Fahrenheit pound(s) kilogram(s) milligram(s) liter(s)
cubic meter(s)	μL pg/L	microliter(s) picogram/liter
	none detected Too Numerous To Count International Units micromhos/cm degrees Celsius milliequivalents gram(s) microgram(s) milliliter(s)	none detected MPN Too Numerous To Count CP Units International Units NTU micromhos/cm ng degrees Celsius F milliequivalents lb. gram(s) kg microgram(s) mg milliliter(s) L cubic meter(s) μL

less than <

greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

parts per billion ppb

Dry weight Results printed under this heading have been adjusted for moisture content. This increases the analyte weight basis

concentration to approximate the value present in a similar sample without moisture. All other results are reported on an

as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and the < Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

REVISED

ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Report Date: April 27, 2016

Project: Herr Foods Inc.

Submittal Date: 07/09/2015 Group Number: 1575572 PO Number: 101722001 State of Sample Origin: PA

> Lancaster Labs (LL) # 7960539

Client Sample Description MW-4 SPL Grab SPL

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/.

Electronic Copy To Rettew Associates

Attn: Ed Dziedzic

Respectfully Submitted,

Stacy L. Butt Specialist

(717) 556-7236



Lancaster Laboratories Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

by EGD

REVISED

Sample Description: MW-4 SPL Grab SPL

HERR FOODS INC.

LL Sample # G5 7960539 LL Group # 1575572 Account # 00721

Project Name: Herr Foods Inc.

Collected: 07/09/2015 09:05 through 07/09/2015 11:35 Submitted: 07/09/2015 13:30 Reported: 04/27/2016 08:41 Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

M4SPL

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10237	Benzene	71-43-2	600,000	10,000	20000
10237	Ethylbenzene	100-41-4	12,000,000	200,000	200000
10237	Isopropylbenzene	98-82-8	1,300,000	20,000	20000
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	10,000	20000
10237	Naphthalene	91-20-3	380,000	20,000	20000
10237	Toluene	108-88-3	22,000,000	200,000	200000
10237	1,2,4-Trimethylbenzene	95-63-6	38,000,000	200,000	200000
10237	1,3,5-Trimethylbenzene	108-67-8	12,000,000	200,000	200000
10237	Xylene (Total)	1330-20-7	59,000,000	200,000	200000
GC Pet	troleum SW-846	8015B modified	see below	see below	
Hydro	carbons				
02535	Quantitative GC Fingerprint	n.a.	N.D.	100	100
	The GC Fingerprint for this standard. Based on relative sample does not appear to be the C8-C40 normal hydrocarbo 56% by weight.	e peak intensities a e weathered. When w	and ratios, the prod we calculate total s	luct in this sample area in	

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	PA Unleaded/Diesel 8260B	SW-846 8260B	1	Q151951AA	07/14/2015 15:49	Sarah A Guill	20000
10237	PA Unleaded/Diesel 8260B	SW-846 8260B	1	Q151951AA	07/14/2015 16:12	Sarah A Guill	200000
00373	DP 21 Bulk Prep of Oil Samples	SW-846 5030B	1	Q151951AA	07/13/2015 10:02	Sarah A Guill	n.a.
02535	Quantitative GC Fingerprint	SW-846 8015B modified	1	151960036A	07/15/2015 22:43	Heather E Williams	100

Analysis Report

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REVISED

Quality Control Summary

Client Name: Rettew Associates Group Number: 1575572

Reported: 04/27/2016 08:41

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/1
Batch number: Q151951AA	Sample numbe	r(s): 7960539
Benzene	N.D.	250
Ethylbenzene	N.D.	500
Isopropylbenzene	N.D.	500
Methyl Tertiary Butyl Ether	N.D.	250
Naphthalene	N.D.	500
Toluene	N.D.	500
1,2,4-Trimethylbenzene	N.D.	500
1,3,5-Trimethylbenzene	N.D.	500
Xylene (Total)	N.D.	500

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: Q151951AA	Sample numbe	r(s): 79605	39						
Benzene	10000	9091.42	10000	9423.47	91	94	80-120	4	30
Ethylbenzene	10000	8537.2	10000	8728.82	85	87	80-120	2	30
Isopropylbenzene	10000	8113.95	10000	8417.58	81	84	76-120	4	30
Methyl Tertiary Butyl Ether	10000	8905.24	10000	9328.76	89	93	72-120	5	30
Naphthalene	10000	8125.11	10000	8774.92	81	88	64-120	8	30
Toluene	10000	9003.81	10000	9281.75	90	93	80-120	3	30
1,2,4-Trimethylbenzene	10000	8361.79	10000	8710.87	84	87	79-120	4	30
1,3,5-Trimethylbenzene	10000	8206.08	10000	8625.79	82	86	78-120	5	30
Xylene (Total)	30000	25630.08	30000	26135.86	85	87	80-120	2	30

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

^{*-} Outside of specification

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.



Analysis Report

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REVISED

Quality Control Summary

Client Name: Rettew Associates Group Number: 1575572

Reported: 04/27/2016 08:41

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PA Unleaded/Diesel 8260B

Batch number: Q151951AA

	Dibromofluorom ethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7960539	82	78	89	92
Blank	87	92	85	82
LCS	93	97	90	87
LCSD	97	102	95	91
Limits:	50-141	54-135	52-141	50-131

Analysis Name: Quantitative GC Fingerprint

Batch number: 151960036A

	Chlorobenzene	Orthoterphenyl	
7960539	103	104	

Limits: 50-150 50-150

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

^{*-} Outside of specification

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.

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Lancaster Laboratories Acct.# <u>OC</u> Environmental

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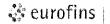
Acct. # 〇〇 ?ス \ For Euroffins Lancaster Laboratories Environmental use only Group # プラスミラSample #アタ(60ミミターInstructions on reverse side correspond with circled numbers.

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Type I (EPA Level 3 Equivalent/non-CLP)	Type VI (Raw Data Only)	Relinquished by		*	- Aale	all land		MA WEL	1 7/9/15 133C
Type III (Reduced non-CLP) TX TRRP-13	2.13	4	EDD Required?く If yes, format:	\$ 55.00	Yes / No		V Relinquished by Commercial Carrier UPS FedEx Other	y Cómmercial FedEx	Carrier: Other
NYSDEC Category A or B MA MCP	CT RCP	Site	Site-Specific QC (MS/MSD/Dup)?	MSD/DI	sə, ¿(dr	No	Temper	Temperature upon receipt	ceipt 7 . C ° C

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client. (If yes, indicate QC sample and submit triplicate sample volume.)

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 777-656-2300

7044 0315



Sample Administration Receipt Documentation Log

Doc Log ID:

85298

Group Number(s): 1575572

Client: Rettew Assoc.

Delivery and Receipt Information

Delivery Method:

Client Drop Off

Arrival Timestamp:

07/09/2015 13:30

Number of Packages:

1

Number of Projects:

1

Arrival Condition Summary

Shipping Container Sealed:

Yes

Sample IDs on COC match Containers:

Yes

Custody Seal Present:

Νo

Sample Date/Times match COC:

Yes

Samples Chilled:

Yes

VOA Vial Headspace ≥ 6mm:

N/A

Paperwork Enclosed:

Yes

Total Trip Blank Qty:

0

Samples Intact:

Yes

Air Quality Samples Present:

No

Missing Samples:

No

Extra Samples:

No

Discrepancy in Container Qty on COC:

No

Unpacked by Timothy Cubberley (6520) at 13:48 on 07/09/2015

Samples Chilled Details

DT = Digital (Temp. Bottle)

IR = Infrared (Surface Temp)

All Temperatures in °C.

<u>Samples</u> Collected Same

Cooler # Thermometer ID

Corrected Temp

Therm. Type

Ice Type

Ice Present?

Ice Container

Elevated Temp?

Day as Receipt?

1

DT131

Thermometer Types:

7.6

DT

Wet

Bagged

Y



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL N.D.	Reporting Limit none detected	BMQL MPN	Below Minimum Quantitation Level Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For ppm aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight Results printed under this heading have been adjusted for moisture content. This increases the analyte weight basis

concentration to approximate the value present in a similar sample without moisture. All other results are reported on an

as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

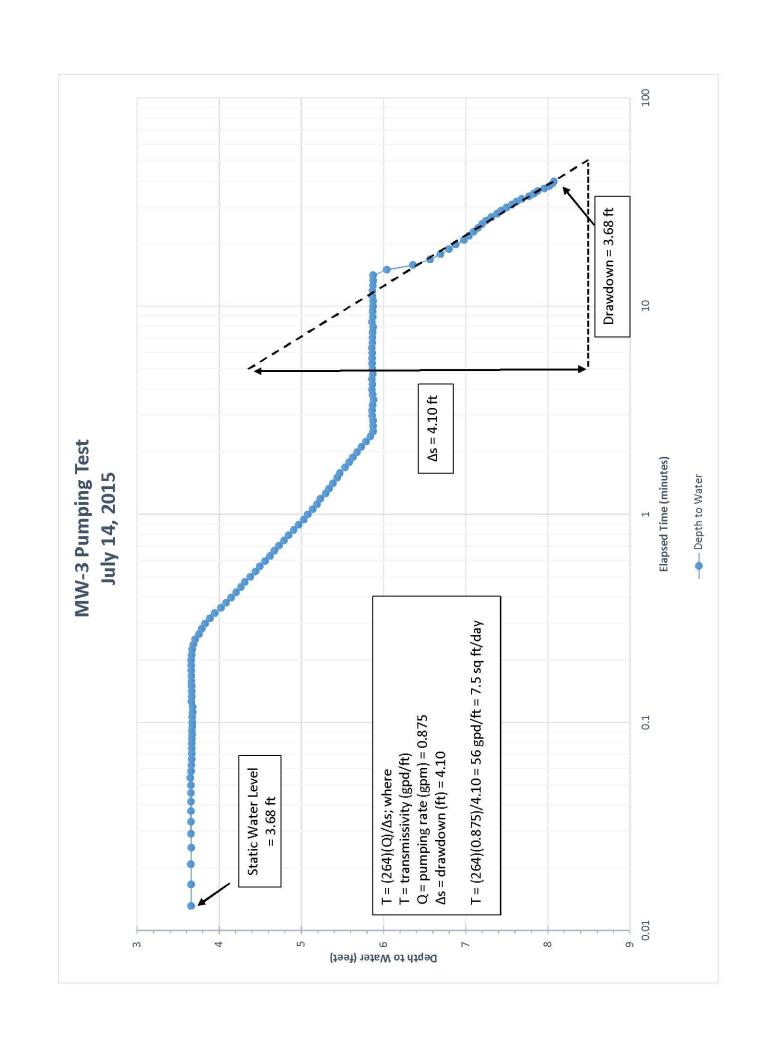
Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

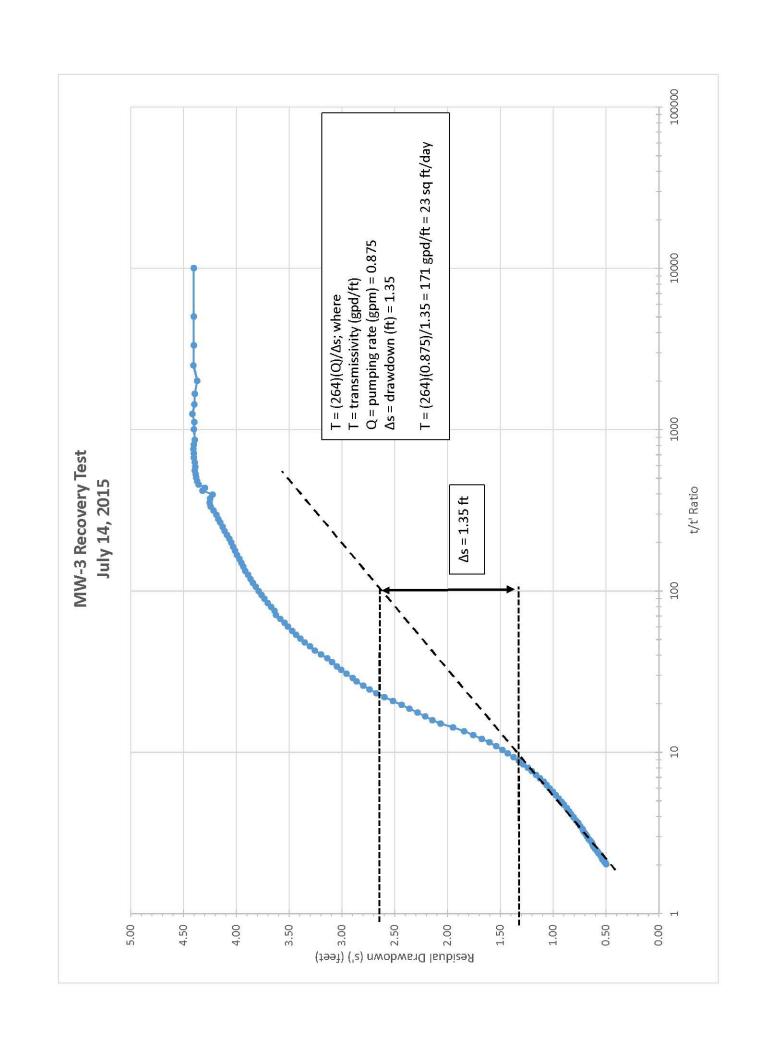
This report shall not be reproduced except in full, without the written approval of the laboratory.

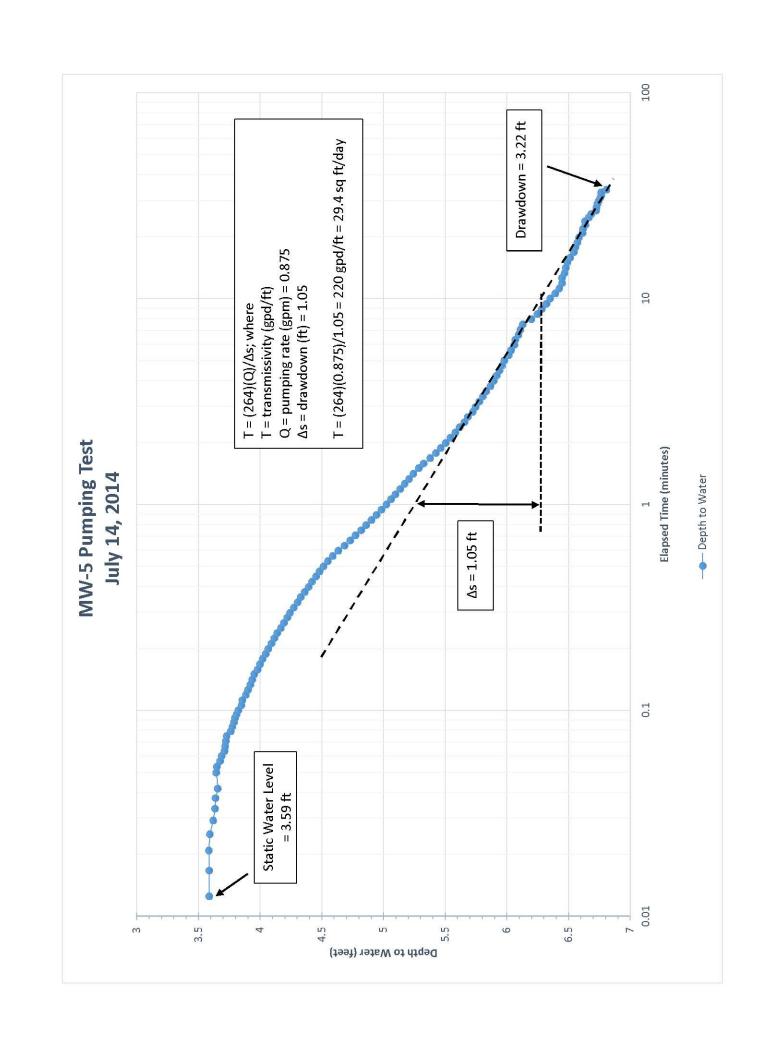
Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

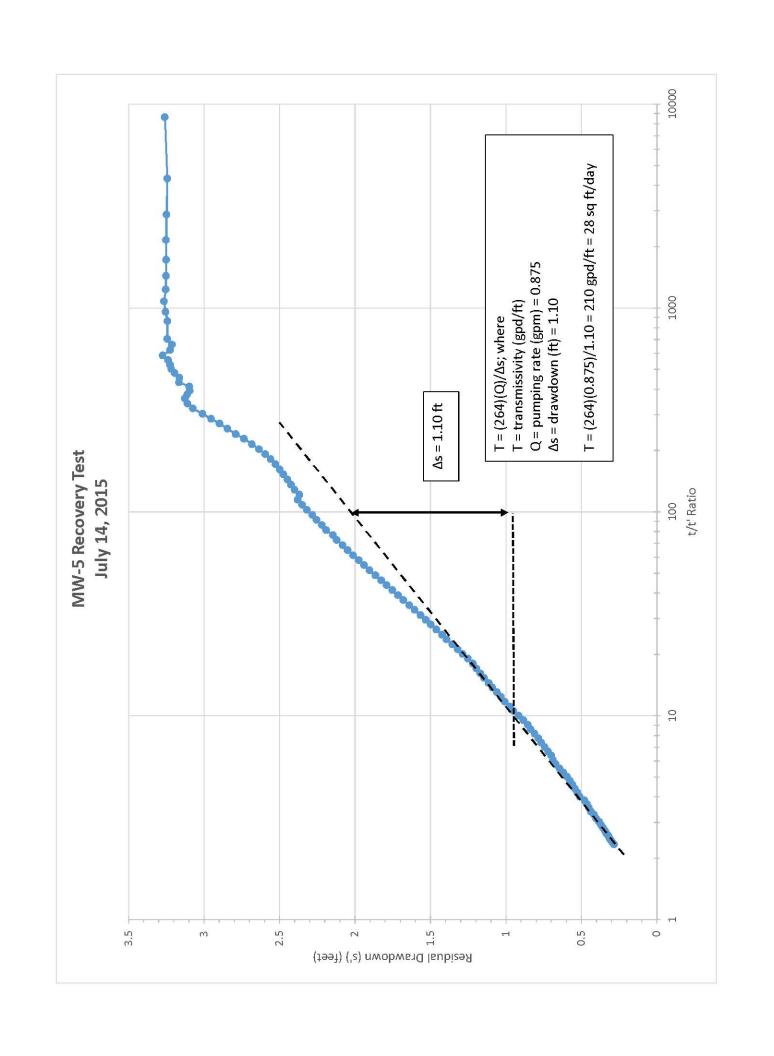
WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

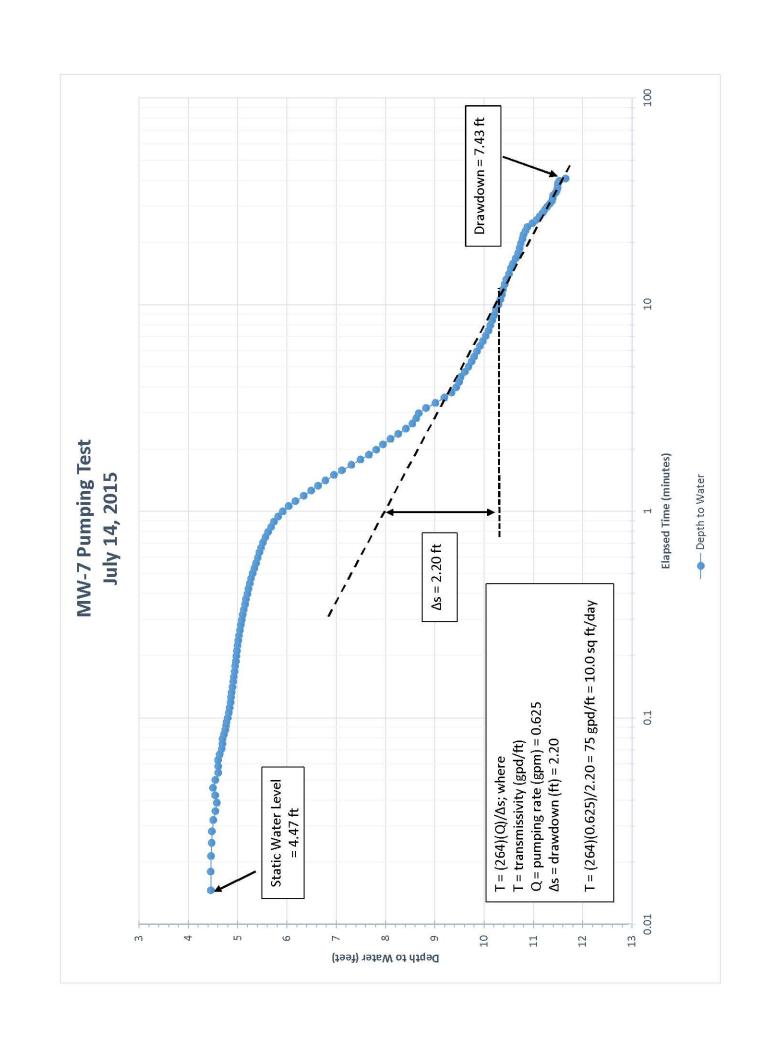
APPENDIX J Aquifer Test Data Plots

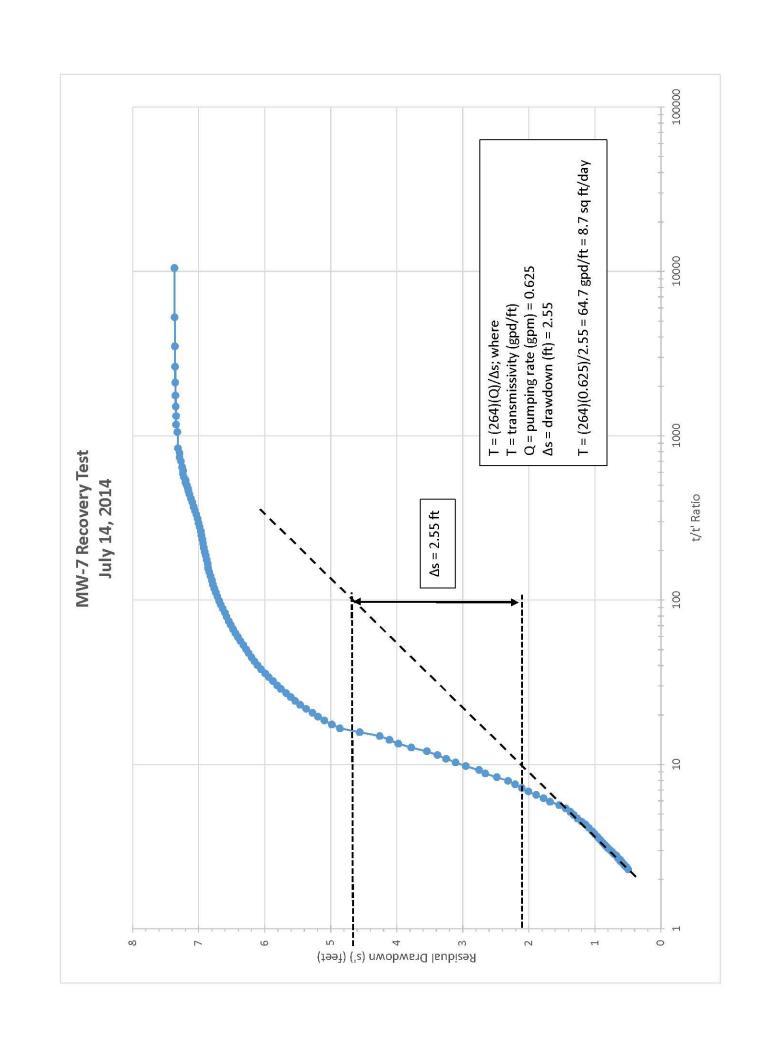












APPENDIX K Soil Gas Sample Laboratory Analytical Reports

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Report Date: April 06, 2016

Project: Herr Foods 101722001

Submittal Date: 03/25/2016 Group Number: 1644353 PO Number: 101722001 State of Sample Origin: PA

Client Sample Description
SG-2 Air

Lancaster Labs (LL) #

8304248

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/.

Electronic Copy To Rettew Associates

Attn: Ed Dziedzic

Respectfully Submitted,

Stacy L. Butt Specialist

(717) 556-7236



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

by ED

Sample Description: SG-2 Air

SUMMA CAN # 1110 Herr Foods 101722001 LL Sample # AQ 8304248 LL Group # 1644353 Account # 00721

Project Name: Herr Foods 101722001

Collected: 03/25/2016 12:40 through 03/25/2016 13:35 Submitted: 03/25/2016 15:45 Reported: 04/06/2016 16:03

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volat:	iles in Air EPA TO-15		ppb (v)	ppb (v)	ug/m3	ug/m3	
05298	Benzene	71-43-2	N.D.	0.20	N.D.	0.64	1
05298	Cumene	98-82-8	N.D.	0.20	N.D.	0.98	1
05298	Ethylbenzene	100-41-4	N.D.	0.20	N.D.	0.87	1
05298	Methyl t-Butyl Ether	1634-04-4	N.D.	0.20	N.D.	0.72	1
05298	Naphthalene	91-20-3	N.D.	0.50	N.D.	2.6	1
05298	Toluene	108-88-3	N.D.	0.20	N.D.	0.75	1
05298	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.20	N.D.	0.98	1
05298	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.20	N.D.	0.98	1
05298	m/p-Xylene	179601-23-1	N.D.	0.20	N.D.	0.87	1
05298	o-Xylene	95-47-6	N.D.	0.20	N.D.	0.87	1

MDL = Method Detection Limit

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution
No.					Date and Time		Factor
05298	TO 15 VOA Ext. List	EPA TO-15	1	E1609630BA	04/05/2016 22:20	Jacob E Bailey	1

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Quality Control Summary

Client Name: Rettew Associates Group Number: 1644353

Reported: 04/06/2016 16:03

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ppb(v)	ppb (v)
Batch number: E1609630BA	Sample number(s):	8304248
Benzene	N.D.	0.20
Cumene	N.D.	0.20
Ethylbenzene	N.D.	0.20
Methyl t-Butyl Ether	N.D.	0.20
Naphthalene	N.D.	0.40
Toluene	N.D.	0.20
1,2,4-Trimethylbenzene	N.D.	0.20
1,3,5-Trimethylbenzene	N.D.	0.20
m/p-Xylene	N.D.	0.20
o-Xylene	N.D.	0.20

LCS/LCSD

Analysis Name	LCS Spike Added ppb(v)	LCS Conc ppb (v)	LCSD Spike Added ppb(v)	LCSD Conc ppb(v)	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: E1609630BA	Sample numbe	er(s): 8304	248						
Benzene	10	10.04	10	9.95	100	100	70-130	1	25
Cumene	10	10.2	10	10.44	102	104	70-130	2	25
Ethylbenzene	10	9.92	10	9.97	99	100	70-130	1	25
Methyl t-Butyl Ether	10	9.22	10	9.72	92	97	52-129	5	25
Naphthalene	10	6.76	10	8.30	68	83	35-153	20	25
Toluene	10	10.24	10	10.23	102	102	70-130	0	25
1,2,4-Trimethylbenzene	10	10.39	10	10.64	104	106	60-128	2	25
1,3,5-Trimethylbenzene	10	10.26	10	10.54	103	105	61-132	3	25
m/p-Xylene	10	10.23	10	10.16	102	102	70-130	1	25
o-Xylene	10	10.34	10	10.48	103	105	70-130	1	25

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

^{*-} Outside of specification

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.

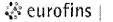
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Lancaster Laboratories Environmental		17 #	Group # <u>1(</u>	4/755 5	Sample #) (2)	0			re Order (SCR	# (
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Client RESTER ASSOCIATES, INC.	APP. DVC	Account #)) 	Standard	Rt	Rush (specify)	<u>}</u>				
Project Name/# PGNQ Pages 10172200	1017220	100			Data	Package	Data Package Required?		EDD Required?	quired?	38TM		
Project Manager	alon dis lon	P,O,#				res Te	Temperature (E)		Presente ("Ha)	ON ("Hu)		(MO	
Sampler		Quote #				Start	Stop		Start	Stop	XΞ	əq ∈	
en prepare	ンゴン				Ambient		(-	0		318	əbut	
Name of state where samples were collected	Ç				Maximum								
	ţ				MinImum				:		91		
Sample Identification	Start Date/Time (24-hour clock)	Stop Date/Time (24-hour clock)	Canlster Pressure in Field ("Hg) (Start)	Canlster Pressure in Field ("Hg) (Stop)	Interior I Temp. (F) (Start)	Interior Temp. (F) (Stop) F	Flow Reg. ID	Can ID	Can Size (L)	Controller Flowrate (mL/min)	- OT A93 81 A93	EPA 25 (s	O2/CO2 Library Sea
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Relinquished by:	Jate/Time; Received by:		Date/Time:		Relinquished by:	. /	Dad		Received by:	<i>\</i>		Dat	Date/Time;
Relinquished by:	Date/Time: Received by:	.kq	Date/Time;		Relinquished by:		Del	Oate/Time:	Received by:	The Car		Dat	Date/Time: /25//t/ /15

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client. Page 4 of 6 Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

7056 1015



Sample Administration Receipt Documentation Log

Doc Log ID:

140678

Group Number(s):

11044353

Client: Rettew Associates

Delivery and Receipt Information

Delivery Method:

Client Drop Off

Arrival Timestamp:

03/25/2016 15:45

Number of Packages:

<u>1</u>

Number of Projects:

1

State/Province of Origin:

<u>PA</u>

Arrival Condition Summary

Shipping Container Sealed:

No

Sample IDs on COC match Containers:

Yes

Custody Seal Present:

No

Sample Date/Times match COC:

Yes

Samples Chilled:

N/A

VOA Vial Headspace ≥ 6mm:

N/A

Paperwork Enclosed:

Yes

Total Trip Blank Qty:

0 .

Samples Intact:

Yes

Air Quality Samples Present:

Yes

Missing Samples:

No

Air Quality Flow Controllers Present:

No

Extra Samples:

Page 1 of 1

No

No

Air Quality Returns:

No

Discrepancy in Container Qty on COC:

Unpacked by Patrick Engle (3472) at 16:06 on 03/25/2016



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL N.D.	Reporting Limit none detected	BMQL MPN	Below Minimum Quantitation Level Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For ppm aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight Results printed under this heading have been adjusted for moisture content. This increases the analyte weight basis

concentration to approximate the value present in a similar sample without moisture. All other results are reported on an

as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Report Date: April 22, 2016

Project: Herr Foods 101722001

Submittal Date: 04/13/2016 Group Number: 1650083 PO Number: 101722001 State of Sample Origin: PA

> Lancaster Labs (LL) # 8330858

Client Sample Description SOIL GAS SG-2 Air

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/.

Electronic Copy To Rettew Associates

Attn: Ed Dziedzic

Respectfully Submitted,

Stacy L. Butt Specialist

(717) 556-7236



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

by ED

Sample Description: SOIL GAS SG-2 Air

SUMMA# 836

HERR FOODS 101722001

LL Sample # AQ 8330858

LL Group # 1650083 Account # 00721

Project Name: Herr Foods 101722001

Collected: 04/13/2016 08:45 through 04/13/2016 09:45 Submitted: 04/13/2016 11:50 Reported: 04/22/2016 15:54

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volat:	iles in Air EPA TO-15		ppb (v)	ppb (v)	ug/m3	ug/m3	
05298	Benzene	71-43-2	N.D.	0.20	N.D.	0.64	1
05298	Cumene	98-82-8	N.D.	0.20	N.D.	0.98	1
05298	Ethylbenzene	100-41-4	N.D.	0.20	N.D.	0.87	1
05298	Methyl t-Butyl Ether	1634-04-4	N.D.	0.20	N.D.	0.72	1
05298	Naphthalene	91-20-3	N.D.	0.50	N.D.	2.6	1
05298	Toluene	108-88-3	0.26 J	0.20	0.98 J	0.75	1
05298	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.20	N.D.	0.98	1
05298	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.20	N.D.	0.98	1
05298	m/p-Xylene	179601-23-1	0.40 J	0.20	1.7 J	0.87	1
05298	o-Xylene	95-47-6	0.24 J	0.20	1.0 J	0.87	1

MDL = Method Detection Limit

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
							140001
05298	TO 15 VOA Ext. List	EPA TO-15	1	E1611230AA	04/21/2016 19:56	Jacob E Bailey	1

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1650083

Reported: 04/22/2016 15:54

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ppb (v)	ppb (v)
Batch number: E1611230AA	Sample number(s):	8330858
Benzene	N.D.	0.20
Cumene	N.D.	0.20
Ethylbenzene	N.D.	0.20
Methyl t-Butyl Ether	N.D.	0.20
Naphthalene	N.D.	0.40
Toluene	N.D.	0.20
1,2,4-Trimethylbenzene	N.D.	0.20
1,3,5-Trimethylbenzene	N.D.	0.20
m/p-Xylene	N.D.	0.20
o-Xylene	N.D.	0.20

LCS/LCSD

Analysis Name	LCS Spike Added ppb(v)	LCS Conc ppb (v)	LCSD Spike Added ppb(v)	LCSD Conc ppb (v)	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: E1611230AA	Sample numbe	er(s): 8330	858						
Benzene	10	10.67	10	10.63	107	106	70-130	0	25
Cumene	10	11.12	10	10.47	111	105	70-130	6	25
Ethylbenzene	10	10.55	10	10.52	105	105	70-130	0	25
Methyl t-Butyl Ether	10	9.55	10	9.80	95	98	52-129	3	25
Naphthalene	10	10.18	10	11.19	102	112	35-153	9	25
Toluene	10	10.61	10	10.67	106	107	70-130	1	25
1,2,4-Trimethylbenzene	10	11.53	10	11.72	115	117	60-128	2	25
1,3,5-Trimethylbenzene	10	10.98	10	11.27	110	113	61-132	3	25
m/p-Xylene	10	10.76	10	10.82	108	108	70-130	1	25
o-Xylene	10	10.94	10	11.1	109	111	70-130	1	25

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

^{*-} Outside of specification

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.



Analysis Report

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1650083

Reported: 04/22/2016 15:54

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

^{*-} Outside of specification

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.

Summa Canister Field Test Data/Chain of Custody

Group # 1/27083 Sample # S330858

Acct. # 1221

Lancaster Laboratories

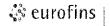
🕏 eurofins

Bottle Order (SCR) #_

Analyses Requested ☐ C4 - C10 (GRO) Library Search Date/Time: Jate/Time; 202/002 ☐ C2 - C10 telium as tracer (seject tange below) **25 A**93 ∃8TM 🏻 **BTEX** 81 A93 OT A93 SI-Flowrate (mL/min) Controller Stop Shd 01.010 EDD Required? £ C1 - C4 C2 - C4 Turnaround Time Requested (TAT) (arde one) Pressure ("Hg) (Received by: Received by: Can Size (L) Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656⁵2300 Rush (specify)_ Yes Start 5 Can ID $\frac{9}{2}$ EPA 25 (check one) Date/Time: Stop Data Package Required? Temperature (F) S これできる Flow Reg. ID Start C ** Standard Interior Temp. (F) (Stop) Yes 0 Maximum Minimum Ambient Refinquished by: Interior Temp. (F) (Start) 0 Pressure in Field ("Hg) (Stop) 14 1 8° C 4 Date/Time: Pressure in Field ("Hg) (Start) 76 11 PADER SUCK LITST PARAMIETERS FOR UNLEASON 6430 LINE AM DIESEL Date/Time (24-hour clock) Stop Quote# 10172201 Client Information 7 Received by: Date/Time (24-hour clock) nstructions/QC Requirements & Comments Start 4114/8145 本からいけずから Jate/Time: en pute pute CONTRACTOR HEMIL FORMS Environmental 94:45 vame of state where samples were collected Sample Identification 46-2 ACTION A 95G 6A3 elinquished by Relinguished by: Sampler

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client. Page 5 of 7

7056 1015



Sample Administration Receipt Documentation Log

Doc Log ID:

142674

Group Number(s):

Client: Rettew Associates

Delivery and Receipt Information

04/13/2016 11:50

Number of Packages:

Delivery Method:

Missing Samples:

Extra Samples:

1

Number of Projects:

Arrival Timestamp:

1

State/Province of Origin:

PA

Client Drop Off

Arrival Condition Summary

Shipping Container Sealed: Yes Custody Seal Present: No Samples Chilled: N/A Yes Paperwork Enclosed: Samples Intact:

Yes

No No Nο

Sample IDs on COC match Containers:

Sample Date/Times match COC: Yes N/A VOA Vial Headspace ≥ 6mm:

0 Total Trip Blank Qty: Air Quality Samples Present: Yes

Air Quality Flow Controllers Present:

Flow Controller Quantity: Air Quality Returns:

1 No

Yes

Yes

Unpacked by Krista Abel (3058) at 12:06 on 04/13/2016

General Comments:

Discrepancy in Container Qty on COC:

Rec'd 1 bag of Summa parts

T ± 717-656-2300 F 1717-656-2681 www.LancasterLabs.com

Page 1 of 1



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For ppm aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight Results printed under this heading have been adjusted for moisture content. This increases the analyte weight basis

concentration to approximate the value present in a similar sample without moisture. All other results are reported on an

as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

APPENDIX L Sediment and Surface Water Sample Laboratory Analytical Reports

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

March 01, 2016

Project: Herr Foods 101722001

Submittal Date: 02/22/2016 Group Number: 1633538 PO Number: 101722001 State of Sample Origin: PA

Client Sample Description	<u>Lancaster Labs (LL) #</u>
Stream-2 Grab Surface Water	8252137
SED-2 Grab Sediment	8252138
Stream-1 Grab Surface Water	8252139
SED-1 Grab Sediment	8252140
Trip Blank Water	8252141

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/.

ELECTRONIC COPY TO

Rettew Associates

Attn: Ed Dziedzic

Respectfully Submitted,

Stacy L. Butt

Specialist

(717) 556-7236

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: Stream-2 Grab Surface Water

Herr Foods 101722001

LL Sample # WW 8252137 LL Group # 1633538 Account # 00721

Project Name: Herr Foods 101722001

Collected: 02/22/2016 10:45 by BO

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/22/2016 13:50

Reported: 03/01/2016 19:17

HRR-1

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	1	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	12	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	D160562AA	02/25/2016 19:44	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D160562AA	02/25/2016 19:44	Daniel H Heller	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SED-2 Grab Sediment

Herr Foods 101722001

LL Sample # SW 8252138 LL Group # 1633538

Account # 00721

Project Name: Herr Foods 101722001

Collected: 02/22/2016 10:55 by BO

Rettew Associates
3020 Columbia Avenue

Lancaster PA 17603-4011

Submitted: 02/22/2016 13:50 Reported: 03/01/2016 19:17

HRR-2

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	0.5	0.82
10237	Ethylbenzene	100-41-4	N.D.	1	0.82
10237	Isopropylbenzene	98-82-8	N.D.	1	0.82
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	0.82
10237	Naphthalene	91-20-3	N.D.	1	0.82
10237	Toluene	108-88-3	N.D.	1	0.82
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	0.82
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	0.82
10237	Xylene (Total)	1330-20-7	N.D.	1	0.82
Wet Cl	hemistry SM 254	10 G-1997	%	%	
00111	Moisture	n.a.	23.6	0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	PA Unleaded/Diesel 8260B	SW-846 8260B	1	A160601AA	02/29/2016 12:35	Jennifer K Howe	0.82
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201605440144	02/22/2016 10:55	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201605440144	02/22/2016 10:55	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201605440144	02/22/2016 10:55	Client Supplied	1
00111	Moisture	SM 2540 G-1997	1	16055820009B	02/25/2016 08:36	William C Schwebel	. 1



Analysis Report

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Sample Description: Stream-1 Grab Surface Water

Herr Foods 101722001

LL Sample # WW 8252139 LL Group # 1633538 Account # 00721

Project Name: Herr Foods 101722001

Collected: 02/22/2016 11:30 by BO

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/22/2016 13:50

Reported: 03/01/2016 19:17

HRR-3

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	19	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	25	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	F160571AA	02/26/2016 14:43	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F160571AA	02/26/2016 14:43	Anita M Dale	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SED-1 Grab Sediment

Herr Foods 101722001

LL Sample # SW 8252140 LL Group # 1633538

Account # 00721

Project Name: Herr Foods 101722001

Collected: 02/22/2016 11:40 by BO

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/22/2016 13:50

Reported: 03/01/2016 19:17

HRR-4

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	5 J	0.5	0.74
10237	Ethylbenzene	100-41-4	N.D.	0.9	0.74
10237	Isopropylbenzene	98-82-8	N.D.	0.9	0.74
10237	Methyl Tertiary Butyl Ether	1634-04-4	160	0.5	0.74
10237	Naphthalene	91-20-3	N.D.	0.9	0.74
10237	Toluene	108-88-3	N.D.	0.9	0.74
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.9	0.74
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.9	0.74
10237	Xylene (Total)	1330-20-7	N.D.	0.9	0.74
Wet Cl	hemistry SM 2540	G-1997	%	%	
00111	Moisture	n.a.	22.1	0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an $\,$

as-received basis.

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT Analysis Name No.		Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor	
10237	PA Unleaded/Diesel 8260B	SW-846 8260B	1	A160601AA	02/29/2016 12:58	Jennifer K Howe	0.74	
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201605440144	02/22/2016 11:40	Client Supplied	1	
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201605440144	02/22/2016 11:40	Client Supplied	1	
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201605440144	02/22/2016 11:40	Client Supplied	1	
00111	Moisture	SM 2540 G-1997	1	16055820009B	02/25/2016 08:36	William C Schwebel	l 1	



Analysis Report

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Sample Description: Trip Blank Water

Herr Foods 101722001

LL Sample # WW 8252141 LL Group # 1633538 Account # 00721

Project Name: Herr Foods 101722001

Collected: 02/22/2016

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 02/22/2016 13:50 Reported: 03/01/2016 19:17

HRR-5

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	F160571AA	02/26/2016 15:04	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F160571AA	02/26/2016 15:04	Anita M Dale	1

Analysis Report

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1633538

Reported: 03/01/2016 19:17

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/kg	ug/kg
Batch number: A160601AA Benzene Ethylbenzene Isopropylbenzene Methyl Tertiary Butyl Ether Naphthalene Toluene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene Xylene (Total)	Sample number(s): N.D. N.D. N.D. N.D. N.D. N.D. N.D. N.D	8252138,8252140 0.5 1 1 0.5 1 1 1
	ug/l	ug/l
Batch number: D160562AA Benzene Ethylbenzene Isopropylbenzene Methyl Tertiary Butyl Ether Naphthalene Toluene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene Xylene (Total)	Sample number(s): N.D. N.D. N.D. N.D. N.D. N.D. N.D. N.D	8252137 0.5 0.5 0.5 0.5 1 0.5 0.5 0.5 0.5
Batch number: F160571AA Benzene Ethylbenzene Isopropylbenzene Methyl Tertiary Butyl Ether Naphthalene Toluene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene Xylene (Total)	Sample number(s): N.D. N.D. N.D. N.D. N.D. N.D. N.D. N.D	8252139,8252141 0.5 0.5 0.5 0.5 1 0.5 0.5 0.5 0.5

LCS/LCSD

Analysis Name	LCS Spike Added ug/kg	LCS Conc ug/kg	LCSD Spike Added ug/kg	LCSD Conc ug/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: A160601AA	Sample numbe	r(s): 8252	138,8252140						
Benzene	20	18.62	20	17.83	93	89	80-120	4	30
Ethylbenzene	20	18.79	20	18.14	94	91	80-120	4	30

^{*-} Outside of specification

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.



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Quality Control Summary

Client Name: Rettew Associates Group Number: 1633538

Reported: 03/01/2016 19:17

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/kg	ug/kg	ug/kg	ug/kg					
Isopropylbenzene	20	18.84	20	18.36	94	92	70-120	3	30
Methyl Tertiary Butyl Ether	20	18.58	20	18.22	93	91	72-120	2	30
Naphthalene	20	18.07	20	17.31	90	87	53-120	4	30
Toluene	20	18.6	20	18.29	93	91	80-120	2	30
1,2,4-Trimethylbenzene	20	18.88	20	18.39	94	92	74-120	3	30
1,3,5-Trimethylbenzene	20	18.6	20	18.34	93	92	73-120	1	30
Xylene (Total)	60	56.02	60	54.36	93	91	80-120	3	30
	ug/1	ug/l	ug/l	ug/l					
Batch number: D160562AA	Sample numbe		137						
Benzene	20	18.34			92		78-120		
Ethylbenzene	20	18.71			94		78-120		
Isopropylbenzene	20	18.73			94		80-120		
Methyl Tertiary Butyl Ether	20	18.34			92		75-120		
Naphthalene	20	17.67			88		59-120		
Toluene	20	18.41			92		80-120		
1,2,4-Trimethylbenzene	20	18.51			93		75-120		
1,3,5-Trimethylbenzene	20	18.65			93		75-120		
Xylene (Total)	60	55.81			93		80-120		
Batch number: F160571AA	Sample numbe	er(s): 8252	139,8252141						
Benzene	20	19.64	20	19.86	98	99	78-120	1	30
Ethylbenzene	20	19.86	20	19.42	99	97	78-120	2	30
Isopropylbenzene	20	19.76	20	19.19	99	96	80-120	3	30
Methyl Tertiary Butyl Ether	20	19.01	20	18.79	95	94	75-120	1	30
Naphthalene	20	18.54	20	17.9	93	89	59-120	4	30
Toluene	20	19.82	20	19.39	99	97	80-120	2	30
1,2,4-Trimethylbenzene	20	19.22	20	18.66	96	93	75-120	3	30
1,3,5-Trimethylbenzene	20	19.91	20	18.67	100	93	75-120	6	30
Xylene (Total)	60	58.39	60	57.42	97	96	80-120	2	30
	%	8	8	%					
Batch number: 16055820009B	Sample numbe	r(s): 8252	138,8252140						
Moisture	89.5	89.47			100		99-101		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: D160562AA	Sample numb	er(s): 8252	137 UNSP	K: P251190						
Benzene	N.D.	20	20.43	20	18.15	102	91	78-120	12	30
Ethylbenzene	1.24	20	22.51	20	19.41	106	91	78-120	15	30
Isopropylbenzene	N.D.	20	21.43	20	18.52	107	93	80-120	15	30
Methyl Tertiary Butyl Ether	N.D.	20	21.81	20	19.07	109	95	75-120	13	30
Naphthalene	N.D.	20	18.48	20	15.64	92	78	59-120	17	30
Toluene	N.D.	20	20.85	20	18	104	90	80-120	15	30
1,2,4-Trimethylbenzene	1.19	20	22.27	20	18.83	105	88	75-120	17	30
1,3,5-Trimethylbenzene	N.D.	20	20.89	20	17.72	104	89	75-120	16	30

^{*-} Outside of specification

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.



Analysis Report

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1633538

Reported: 03/01/2016 19:17

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Xylene (Total)	0.629	60	63.14	60	55.06	104	91	80-120	14	30

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	%	%		
Batch number: 16055820009B	Sample number(s):	8252138,8252140 BKG:	P254854	
Moisture	14.18	12.21	15*	5

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PA Unleaded/Diesel 8260B

Batch number: A160601AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8252138	106	102	95	92
8252140	107	109	96	92
Blank	106	103	97	92
LCS	104	99	101	100
LCSD	102	98	101	99
Limits:	50-141	54-135	52-141	50-131

Analysis Name: PA UST Unleaded + TMBs

Batch number: D160562AA

	Dibromofluorom ethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8252137	92	96	101	97
Blank	95	96	101	97
LCS	94	98	101	100
MS	93	97	101	100
MSD	93	97	100	100
Limits:	80-116	77-113	80-113	78-113

Analysis Name: PA UST Unleaded + TMBs

Batch number: F160571AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8252139	93	98	98	94
8252141	94	98	98	93
Blank	93	98	100	95
LCS	93	99	99	96
LCSD	95	101	98	96

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

^{*-} Outside of specification

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.



Analysis Report

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1633538

Reported: 03/01/2016 19:17

Limits: 80-116 77-113 80-113 78-113

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

^{*-} Outside of specification

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Report Date: April 19, 2016

Project: Project No. 101722001

Submittal Date: 04/06/2016 Group Number: 1647796 PO Number: 101722001 State of Sample Origin: PA

Lancaster Labs
<u>(LL) #</u>
8320673
8320674
8320675
8320676
8320677
8320678

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/.

Electronic Copy To Rettew Associates Attn: Ed Dziedzic

Respectfully Submitted,

Stacy L. Butt Specialist

(717) 556-7236



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: Stormwater Grab Surface Water

101722001

LL Sample # WW 8320673 LL Group # 1647796 Account # 00721

Project Name: Project No. 101722001

Collected: 04/06/2016 10:45 by EGD

Rettew Associates

3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 04/06/2016 16:14 Reported: 04/19/2016 12:28

STORM

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	F161034AA	04/13/2016 00:18	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F161034AA	04/13/2016 00:18	Hu Yang	1



Analysis Report

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Sample Description: Stream 3 Grab Surface Water

101722001

LL Sample # WW 8320674 LL Group # 1647796 Account # 00721

Project Name: Project No. 101722001

Collected: 04/06/2016 10:55 by EGD Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 04/06/2016 16:14

Reported: 04/19/2016 12:28

STRM3

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846 82	60B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.7 J	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	F161034AA	04/13/2016 00:40	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F161034AA	04/13/2016 00:40	Hu Yang	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: Stream 1 Grab Surface Water

101722001

LL Sample # WW 8320675 LL Group # 1647796

Account # 00721

Project Name: Project No. 101722001

Collected: 04/06/2016 11:05 by EGD

Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 04/06/2016 16:14

Reported: 04/19/2016 12:28

STRM1

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846 8	260B	ug/l	ug/l	
10945	Benzene	71-43-2	14	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	19	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	F161034AA	04/13/2016 01:02	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F161034AA	04/13/2016 01:02	Hu Yang	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SED3 Grab Sediment

101722001

LL Sample # SW 8320676 LL Group # 1647796 Account # 00721

Project Name: Project No. 101722001

Collected: 04/06/2016 11:15 by EGD Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 04/06/2016 16:14

Reported: 04/19/2016 12:28

SED-3

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg	ug/kg	
10237	Benzene	71-43-2	N.D.	2	1.2
10237	Ethylbenzene	100-41-4	N.D.	3	1.2
10237	Isopropylbenzene	98-82-8	N.D.	3	1.2
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	2	1.2
10237	Naphthalene	91-20-3	N.D.	3	1.2
10237	Toluene	108-88-3	N.D.	3	1.2
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	3	1.2
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	3	1.2
10237	Xylene (Total)	1330-20-7	N.D.	3	1.2
acce The acce	recovery for the sample intern- ptance limits. The following co- sample was re-analyzed and the ptance limits, indicating a ma rted from the initial trial.	orrective action QC is again outs	was taken: ide of the		
Wet Cl	nemistry SM 2540	G-1997	%	8	
00111	Moisture	n.a.	60.6	0.50	1
	Moisture represents the loss 103 - 105 degrees Celsius. Th as-received basis.	_			

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record Method CAT Analysis Name Trial# Batch# Analysis Analyst Dilution Date and Time Factor No. 10237 PA Unleaded/Diesel 8260B SW-846 8260B X160981AA 04/07/2016 12:54 Jennifer K Howe 1.2 02392 GC/MS - Field Preserved SW-846 5035A 201609740724 04/06/2016 11:15 Client Supplied NaHSO4 02392 GC/MS - Field Preserved Client Supplied SW-846 5035A 201609740724 04/06/2016 11:15 1 NaHSO4 GC/MS-5g Field SW-846 5035A 201609740724 04/06/2016 11:15 Client Supplied 1 Preserv.MeOH-NC 00111 Moisture SM 2540 G-1997 16098820006A 04/07/2016 19:17 Scott W Freisher



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SED4 Grab Sediment

101722001

LL Sample # SW 8320677 LL Group # 1647796 Account # 00721

Project Name: Project No. 101722001

Collected: 04/06/2016 11:25 by EGD

3020 Columbia Avenue Lancaster PA 17603-4011

Rettew Associates

Submitted: 04/06/2016 16:14 Reported: 04/19/2016 12:28

SED-4

CAT No.	Analysis Name	CAS Number	Dry Resul	t	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/kg		ug/kg	
10237	Benzene	71-43-2	38		1	1.04
10237	Ethylbenzene	100-41-4	N.D.		2	1.04
10237	Isopropylbenzene	98-82-8	6	J	2	1.04
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	J	1	1.04
10237	Naphthalene	91-20-3	N.D.		2	1.04
10237	Toluene	108-88-3	N.D.		2	1.04
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.		2	1.04
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.		2	1.04
10237	Xylene (Total)	1330-20-7	N.D.		2	1.04
QC a	recovery for the sample intersceptance limits. Sufficient at the analysis.					
Wet Cl	nemistry SM 254	G-1997	%		8	
00111	Moisture	n.a.	53.3		0.50	1
	Moisture represents the loss 103 - 105 degrees Celsius. T as-received basis.	_	-			

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	PA Unleaded/Diesel 8260B	SW-846 8260B	1	X160981AA	04/07/2016 13:17	Jennifer K Howe	1.04
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201609740724	04/06/2016 11:25	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201609740724	04/06/2016 11:25	Client Supplied	1
00111	Moisture	SM 2540 G-1997	1	16098820006A	04/07/2016 19:17	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: Stream 4 Grab Surface Water

101722001

LL Sample # WW 8320678 LL Group # 1647796 Account # 00721

Project Name: Project No. 101722001

Collected: 04/06/2016 14:45 by EGD

Rettew Associates

3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 04/06/2016 16:14 Reported: 04/19/2016 12:28

STRM4

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	F161034AA	04/13/2016 01:24	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F161034AA	04/13/2016 01:24	Hu Yang	1

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Quality Control Summary

Client Name: Rettew Associates Group Number: 1647796

Reported: 04/19/2016 12:28

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/kg	ug/kg
Batch number: X160981AA	Sample number(s):	8320676-8320677
Benzene	N.D.	0.5
Ethylbenzene	N.D.	1
Isopropylbenzene	N.D.	1
Methyl Tertiary Butyl Ether	N.D.	0.5
Naphthalene	N.D.	1
Toluene	N.D.	1
1,2,4-Trimethylbenzene	N.D.	1
1,3,5-Trimethylbenzene	N.D.	1
Xylene (Total)	N.D.	1
Ayrene (10car)	11.0.	-
Ayrene (rocar)	ug/l	ug/l
Batch number: F161034AA	ug/l	
•	ug/l	ug/l
Batch number: F161034AA	ug/l Sample number(s):	ug/1 8320673-8320675,8320678
Batch number: F161034AA Benzene	ug/l Sample number(s): N.D.	ug/1 8320673-8320675,8320678 0.5
Batch number: F161034AA Benzene Ethylbenzene	<pre>ug/l Sample number(s): N.D. N.D.</pre>	ug/1 8320673-8320675,8320678 0.5 0.5
Batch number: F161034AA Benzene Ethylbenzene Isopropylbenzene	<pre>ug/l Sample number(s): N.D. N.D. N.D.</pre>	ug/1 8320673-8320675,8320678 0.5 0.5 0.5
Batch number: F161034AA Benzene Ethylbenzene Isopropylbenzene Methyl Tertiary Butyl Ether	<pre>ug/l Sample number(s): N.D. N.D. N.D. N.D.</pre>	ug/1 8320673-8320675,8320678 0.5 0.5 0.5 0.5
Batch number: F161034AA Benzene Ethylbenzene Isopropylbenzene Methyl Tertiary Butyl Ether Naphthalene	<pre>ug/l Sample number(s): N.D. N.D. N.D. N.D. N.D.</pre>	ug/1 8320673-8320675,8320678 0.5 0.5 0.5 1
Batch number: F161034AA Benzene Ethylbenzene Isopropylbenzene Methyl Tertiary Butyl Ether Naphthalene Toluene	<pre>ug/l Sample number(s): N.D. N.D. N.D. N.D. N.D. N.D.</pre>	ug/1 8320673-8320675,8320678 0.5 0.5 0.5 1 0.5

LCS/LCSD

Analysis Name	LCS Spike Added ug/kg	LCS Conc ug/kg	LCSD Spike Added ug/kg	LCSD Conc ug/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: X160981AA	Sample numbe	er(s): 8320	576-8320677						
Benzene	20	20.79	20	20.63	104	103	80-120	1	30
Ethylbenzene	20	19.83	20	19.49	99	97	80-120	2	30
Isopropylbenzene	20	18.88	20	18.77	94	94	70-120	1	30
Methyl Tertiary Butyl Ether	20	19.98	20	19.13	100	96	72-120	4	30
Naphthalene	20	17.11	20	16.11	86	81	53-120	6	30
Toluene	20	19.87	20	19.65	99	98	80-120	1	30
1,2,4-Trimethylbenzene	20	18.54	20	18.48	93	92	74-120	0	30
1,3,5-Trimethylbenzene	20	18.54	20	18.42	93	92	73-120	1	30
Xylene (Total)	60	56.53	60	56.05	94	93	80-120	1	30
	ug/l	ug/l	ug/l	ug/l					

^{*-} Outside of specification

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.



Analysis Report

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1647796

Reported: 04/19/2016 12:28

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F161034AA	Sample numbe:	r(s): 8320	673-8320675,832	20678					
Benzene	20	20.08			100		78-120		
Ethylbenzene	20	18.81			94		78-120		
Isopropylbenzene	20	19.07			95		80-120		
Methyl Tertiary Butyl Ether	20	19.76			99		75-120		
Naphthalene	20	16.52			83		59-120		
Toluene	20	18.78			94		80-120		
1,2,4-Trimethylbenzene	20	18.36			92		75-120		
1,3,5-Trimethylbenzene	20	18.24			91		75-120		
Xylene (Total)	60	56.63			94		80-120		
	%	%	%	%					
Batch number: 16098820006A	Sample numbe	r(s): 8320	676-8320677						
Moisture	89.5	89.39			100		99-101		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F161034AA	Sample numb	er(s): 8320	673-8320	675,8320678	UNSPK: P	325302				
Benzene	N.D.	20	21.53	20	21.67	108	108	78-120	1	30
Ethylbenzene	N.D.	20	20.2	20	20.59	101	103	78-120	2	30
Isopropylbenzene	N.D.	20	20.36	20	21.03	102	105	80-120	3	30
Methyl Tertiary Butyl Ether	N.D.	20	20.33	20	20.54	102	103	75-120	1	30
Naphthalene	N.D.	20	16.34	20	17.08	82	85	59-120	4	30
Toluene	N.D.	20	20.01	20	20.53	100	103	80-120	3	30
1,2,4-Trimethylbenzene	N.D.	20	19.03	20	19.38	95	97	75-120	2	30
1,3,5-Trimethylbenzene	N.D.	20	19.63	20	20.1	98	100	75-120	2	30
Xylene (Total)	N.D.	60	59.71	60	61.48	100	102	80-120	3	30

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	%	%		
Batch number: 16098820006A	Sample number(s):	8320676-8320677 BKG:	P320715	
Moisture	21.72	16.71	26*	5

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

^{*-} Outside of specification

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.



Analysis Report

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1647796

Reported: 04/19/2016 12:28

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PA UST Unleaded + TMBs

Batch number: F161034AA

	Dibromofluorom ethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8320673	97	95	98	94
8320674	96	95	97	92
8320675	100	94	99	95
8320678	99	94	97	92
Blank	99	98	99	93
LCS	97	98	97	96
MS	98	97	97	97
MSD	96	98	98	96
Limits:	80-116	77-113	80-113	78-113

Analysis Name: PA Unleaded/Diesel 8260B

Batch number: X160981AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8320676	104	104	116	80
8320677	99	97	115	0.8
Blank	101	100	101	97
LCS	101	100	101	101
LCSD	100	98	101	100
Limits:	50-141	54-135	52-141	50-131

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

^{*-} Outside of specification

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.

Environmental Analysis Pequesi/Ohain of Custody

8320673-79

For Eurofins Lancaster Laboratories Environmental use only

Group # 1647760 Sample #__

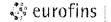
Lancaster Laboratories

ورايد eurofins

3.5 T=Thiosulfate 28238 Preservation Codes <u>iii</u> rime Time B=NaOH ç 0=Other Remarks For Lab Use Only Date Date // Relinquished by Commercial Carrier: N=HNO_s 5=H2SO4 Other H=HCi Temperature upon receipt SCR#: FSC: FedEx_ Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 **Analysis Requested** Preservation Codes 2000 Received by Regeived by Received by Received by UPS から (if yes, indicate QC sample and submit triplicate sample volume.) The Time ဍ 16/16 Yes 운 Date Date Date Site-Specific QC (MS/MSD/Dup)? Usia kono Yes 1/estorage Total # of Containers N EDD Required? X SENTANENT :iəqiO Matrix Surace **NPDES** If yes, format: ×| Mater Ground Potable Sediment lio2 efinquished by 🎤 Relinquished by Relinquished by Composite Grab 10:55 20: 12/0/10 540 11.12 TX TRRP-13 Time Acct. # 7 → 1 Collected Type VI (Raw Data Only) CT RCP Turnaround Time (TAT) Requested (please circle) 2 E-mail address: EDZEEDZZZ @ PETTEN / COM Date □ 8 WSID #: Quote #: Acct. #: .. O: Data Package Options (circle if required) (Rush TAL is subject-to laboratory approval and surcharge.) Client Information NJ DKQP MA MCP Rethew Associates an Horr from 1017100 Yes 🗆 For Compliance: いってながらが Sample Identification Environmental Type III (Reduced non-CLP) $^{\odot}$ NYSDEC Category A or からなる。となったから N State where samples were collected: Equivalent/non-CLP) Type I (EPA Level 3 Date results are needed: STAGANA Standard STRUCTURE 別の STATE OF STA 200 くのと Project Manager

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client. Page 11 of 13

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Sample Administration Receipt Documentation Log

Doc Log ID:

141892

Group Number(s):

1647796

Client: Rettew Associates

Delivery and Receipt Information

Delivery Method:

Client Drop Off

Arrival Timestamp:

04/06/2016 16:14

Number of Packages:

1

Number of Projects:

1

State/Province of Origin:

AB

Arrival Condition Summary

Shipping Container Sealed:

No

Sample IDs on COC match Containers:

Yes

Custody Seal Present:

No

Sample Date/Times match COC:

Yes

Samples Chilled:

Yes

VOA Vial Headspace ≥ 6mm:

Air Quality Samples Present:

No

Paperwork Enclosed:

Yes

Total Trip Blank Qty:

2

Samples Intact:

Yes

Trip Blank Type:

HCI No

Missing Samples: Extra Samples:

Thermometer Types:

No

No

Discrepancy in Container Qty on COC:

No

Unpacked by Patrick Engle (3472) at 16:46 on 04/06/2016

Samples Chilled Details

IR = Infrared (Surface Temp)

All Temperatures in °C.

Samples Collected Same

Cooler # Thermometer ID 32170023

Corrected Temp 7.5

Therm. Type ΙR

DT = Digital (Temp. Bottle)

Ice Type Wet

Ice Present?

Ice Container Bagged

Elevated Temp? Υ

Day as Receipt?

General Comments:

Samples Received with Ink Smearing due to contact with water, sample Stream 3 Identified through process of elimination, Sample ID, Date and Time illegible.

> 2425 New Holland Pike Lancaster, PA 17605-2425

> > Page 12 of 13

717-656-2300 717-656-2681 www.LancasterLabs.com



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL N.D.	Reporting Limit none detected	BMQL MPN	Below Minimum Quantitation Level Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For ppm aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight Results printed under this heading have been adjusted for moisture content. This increases the analyte weight basis

concentration to approximate the value present in a similar sample without moisture. All other results are reported on an

as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Environmental Analysis Requesi/Ohain of Custody

16-4812528 # sldmes

Group # 1633538

Acct. # -77

Lancaster Laboratories

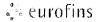
್ಟ್ eurofins

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T=Thiosulfate Preservation Codes B=NaOH me ine လူ 0=Other Remarks 91/22/2 For Lab Use Only Date N=HNO₃ S=H₂SO₄ Relinquished by Commercial Carrier: H-HCI Temperature upon receipt SCR#: FSC; FedEx Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 Analysis Requested Preservation Codes Received by Received by 12216/135g (If yes, indicate QC sample and submit triplicate sample volume.) Yes 욷 Date VAIRENOES 45 45 45 030 Site-Specific QC (MS/MSD/Dup)? Yes となり」の Total # of Containers EDD Required? :iadiO Matrix X Surface **NPDES** If yes, format: naieW [× Ground Potable Sediment 🔀 **!!os** Relinquished by eficogmod × Grab X × Time TX TRRP-13 0111 91/22/2 2/22/16/1130 5 MOI | 91/22/2 10:55 Collected Type VI (Raw Data Only) CT RCP Turnaround Time (TAT) Requested (please circle) Date 2/22/16 E-mail address: edziedzic@jettew.cum PWSID #: Quote #: Acct. #: Data Package Options (circle if required) å Client Information (Rush TAT is subject to laboratory approval and surcharge.) NJ DKOP MA MCP Yes 🗆 For Compliance: Project Name/#: Herr Frads/101722col client Retter Assaciates Inc Project Manager: Ed Dziedzic Sample Identification Sampler: Brendan Oblane Li Environmental State where samples were collected: PA Type III (Reduced non-CLP) m NYSDEC Category A or Equivalent/non-CLP) Type I (EPA Level 3 Date results are needed: Standard Stream · Z Trip Blunk Stran. SED-2 5C0

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7044 1115



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Sample Administration Receipt Documentation Log

Doc Log ID:

137099

Group Number(s): 1633538

Client: Rettew Associates

Delivery and Receipt Information

Delivery Method:

Client Drop Off

Arrival Timestamp:

02/22/2016 13:50

Number of Packages:

1

Number of Projects:

1

State/Province of Origin:

PA

Arrival Condition Summary

Shipping Container Sealed:

Discrepancy in Container Qty on COC:

No

Sample IDs on COC match Containers:

Yes

Custody Seal Present:

No

Sample Date/Times match COC:

Yes

Samples Chilled:

Yes

VOA Vial Headspace ≥ 6mm:

No

Paperwork Enclosed:

Yes

Total Trip Blank Qty:

2 HCI

Samples Intact: Missing Samples: Yes No

Trip Blank Type: Air Quality Samples Present:

No

Extra Samples:

No

No

Unpacked by Katherine Metzger (2241) at 14:23 on 02/22/2016

Samples Chilled Details

Thermometer Types:

DT = Digital (Temp. Bottle)

IR = Infrared (Surface Temp)

All Temperatures in °C.

Cooler # Thermometer ID

Corrected Temp

Therm. Type

Ice Type Ice Present? Ice Container

Elevated Temp?

1

DT121

1.3

DT

Wet

Υ

Loose/Bag

Ν

T = 717-656-2300 F : 717-656-2681 www.LancasterLabs.cor



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL N.D.	Reporting Limit none detected	BMQL MPN	Below Minimum Quantitation Level Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight Results printed under this heading have been adjusted for moisture content. This increases the analyte weight basis

concentration to approximate the value present in a similar sample without moisture. All other results are reported on an

as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Report Date: April 21, 2016

Project: Project No. 101722001

Submittal Date: 04/13/2016 Group Number: 1650073 PO Number: 101722001 State of Sample Origin: PA

Client Sample Description(LL) #DPW-1 Grab Groundwater8330790DPW-2 Grab Groundwater8330791

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/.

Electronic Copy To Rettew Associates

Attn: Ed Dziedzic

Respectfully Submitted,

Stacy L. Butt Specialist

(717) 556-7236



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: DPW-1 Grab Groundwater

101722001

LL Sample # WW 8330790 LL Group # 1650073

Account # 00721

Project Name: Project No. 101722001

Collected: 04/13/2016 10:15 by ED

Rettew Associates
3020 Columbia Avenue

Submitted: 04/13/2016 11:50 Lancaster PA 17603-4011

Reported: 04/21/2016 09:41

DPW-1

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	2	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	D161101AA	04/19/2016 22:47	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D161101AA	04/19/2016 22:47	Hu Yang	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: DPW-2 Grab Groundwater

101722001

LL Sample # WW 8330791 LL Group # 1650073 Account # 00721

Project Name: Project No. 101722001

Collected: 04/13/2016 10:25 by ED Rettew Associates 3020 Columbia Avenue Lancaster PA 17603-4011

Submitted: 04/13/2016 11:50

Reported: 04/21/2016 09:41

DPW-2

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	13	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	5	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	0.7 J	0.5	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	PA UST Unleaded + TMBs	SW-846 8260B	1	D161101AA	04/19/2016 21:39	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D161101AA	04/19/2016 21:39	Hu Yang	1

Analysis Report

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1650073

Reported: 04/21/2016 09:41

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result ug/l	MDL ug/l
Batch number: D161101AA	Sample number(s):	8330790-8330791
Benzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Isopropylbenzene	N.D.	0.5
Methyl Tertiary Butyl Ether	N.D.	0.5
Naphthalene	N.D.	1
Toluene	N.D.	0.5
1,2,4-Trimethylbenzene	N.D.	0.5
1,3,5-Trimethylbenzene	N.D.	0.5
Xylene (Total)	N.D.	0.5

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D161101AA	Sample numbe:	r(s): 8330	790-8330791						
Benzene	20	18.63			93		78-120		
Ethylbenzene	20	18.19			91		78-120		
Isopropylbenzene	20	19.12			96		80-120		
Methyl Tertiary Butyl Ether	20	20.84			104		75-120		
Naphthalene	20	17.24			86		59-120		
Toluene	20	18.72			94		80-120		
1,2,4-Trimethylbenzene	20	18.75			94		75-120		
1,3,5-Trimethylbenzene	20	17.11			86		75-120		
Xylene (Total)	60	56.62			94		80-120		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: D161101AA	Sample numb	er(s): 8330	790-8330	791 UNSPK:	P326892					
Benzene	N.D.	20	20.22	20	18.29	101	91	78-120	10	30
Ethylbenzene	N.D.	20	22.66	20	17.1	113	85	78-120	28	30

^{*-} Outside of specification

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.



Analysis Report

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Quality Control Summary

Client Name: Rettew Associates Group Number: 1650073

Reported: 04/21/2016 09:41

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Isopropylbenzene	N.D.	20	21.64	20	17.82	108	89	80-120	19	30
Methyl Tertiary Butyl Ether	N.D.	20	19.77	20	19.38	99	97	75-120	2	30
Naphthalene	N.D.	20	18.97	20	17.07	95	85	59-120	10	30
Toluene	N.D.	20	19.03	20	18.45	95	92	80-120	3	30
1,2,4-Trimethylbenzene	N.D.	20	21.22	20	16.78	106	84	75-120	23	30
1,3,5-Trimethylbenzene	N.D.	20	19.08	20	17.25	95	86	75-120	10	30
Xylene (Total)	N.D.	60	62.83	60	53.82	105	90	80-120	15	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PA UST Unleaded + TMBs

Batch number: D161101AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	i oluene-a8	4-Bromofluorobenzene
8330790	94	97	94	88
8330791	96	104	102	89
Blank	100	102	92	87
LCS	97	102	100	92
MS	97	103	94	104
MSD	98	101	100	93
Limits:	80-116	77-113	80-113	78-113

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

^{*-} Outside of specification

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

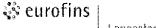
⁽²⁾ The unspiked result was more than four times the spike added.

Environmental Analysis Pequesi/Chain of Custody

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(Rush TAT is subject to laboratory approval and surcharge.)	arge.)	Relinquished to	1 Tr		lyate	/ / Time	Received by	Day III	Time S / / y x
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NAO) VETTER (S) STS (TE STATE		Helineurshed			Date Date	16 1:30 Time	Received by-	Date Ti	Time
Data Package Options (circle if required)	if required)		,						
Type I (EPA Level 3 Equivalent/non-CLP)	Type VI (Raw Data Only)	Relinquished by	/(Date	Time	Received by	H /3/16	Time //S [*] C
Type III (Reduced non-CLP) NJ DKQP	(QP TX TRRP-13		EDD Re	EDD Required?	Yes No		Retinguished by Commercial UPS. FedEx	Commercial Carriér: FedEx Other	No. of Control (Andrews)
NYSDEC Category A or B MA MCP	CP CT RCP	Sit.	Site-Specific QC (MS/MSD/Dup)? Yes No (If yes, indicate QC sample and submit triplicate sample volume.)	(MS/MSE)	//Dup)? Y	Yes No ample volume.)	Tempe	Temperature upon receipt	
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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client. Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 Page 6 of 8

7044 1115



Sample Administration Receipt Documentation Log

Doc Log ID:

142675

Group Number(s):

1650073

Client: Rettew

Delivery and Receipt Information

Delivery Method:

Client Drop Off

Arrival Timestamp:

04/13/2016 11:50

Number of Packages:

1

Number of Projects:

1

State/Province of Origin:

<u>PA</u>

Arrival Condition Summary

Shipping Container Sealed:

Yes

Sample IDs on COC match Containers:

Yes

Custody Seal Present:

No

Sample Date/Times match COC:

Yes

Samples Chilled:

Yes

VOA Vial Headspace ≥ 6mm:

Nο

Paperwork Enclosed:

Yes

Total Trip Blank Qty:

2

Samples Intact:

Yes

Trip Blank Type:

HCI

Missing Samples:

No

Air Quality Samples Present:

No

Extra Samples:

No

Discrepancy in Container Qty on COC:

No

Unpacked by Krista Abel (3058) at 12:09 on 04/13/2016

Samples Chilled Details

Thermometer Types:

DT = Digital (Temp. Bottle)

IR = Infrared (Surface Temp)

All Temperatures in °C.

Cooler#

Thermometer ID

Corrected Temp

Therm. Type

Ice Type

Ice Present?

Ice Container

Elevated Temp?

1

DT146

4.5

DT

Wet

Υ

Bagged

Ν

T = 717-656-2300 F : 717-656-2681 www.LancasterLabs.com



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For ppm aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight Results printed under this heading have been adjusted for moisture content. This increases the analyte weight basis

concentration to approximate the value present in a similar sample without moisture. All other results are reported on an

as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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APPENDIX M Concentration vs Time Plots

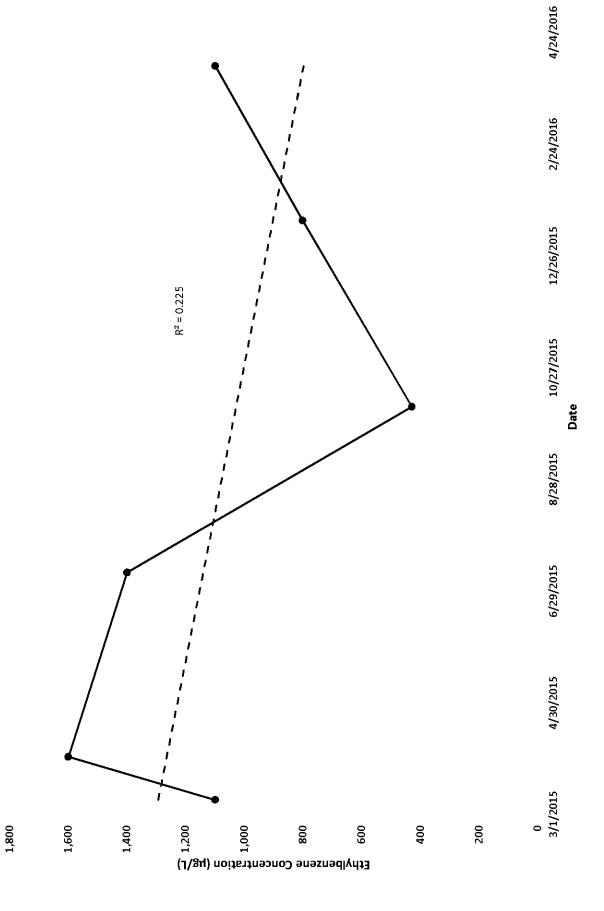
4/24/2016 2/24/2016 12/26/2015 10/27/2015 $R^2 = 0.2855$ Date 8/28/2015 6/29/2015 4/30/2015 0 3/1/2015 Benzene Concentration (kg/L) 250 20 100

Benzene Concentrations vs Time

300

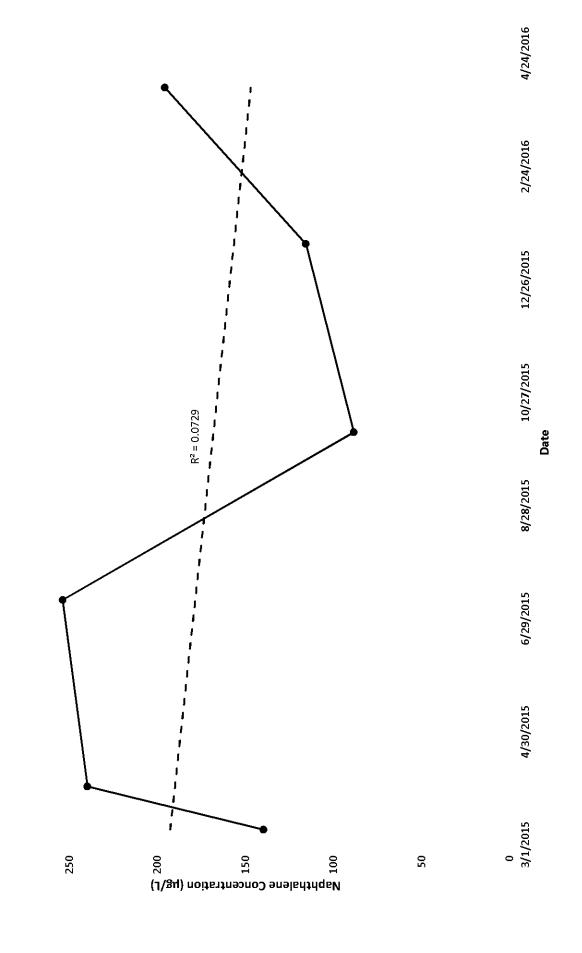
4/24/2016 2/24/2016 12/26/2015 **Toluene Concentrations vs Time** 10/27/2015 $R^2 = 0.5599$ Date 8/28/2015 6/29/2015 4/30/2015 0 3/1/2015 14,000 16,000 Toluene Concentration (µg/L) 12,000 4,000 18,000 9,000 2,000

MW-3 Ethylbenzene Concentrations vs Time



MW-3 Naphthalene Concentrations vs Time

300



4/24/2016 2/24/2016 12/26/2015 1,2,4-TMB Concentrations vs Time 10/27/2015 $R^2 = 0.4639$ Date 8/28/2015 6/29/2015 4/30/2015 0 3/1/2015 1200 1000 800 900 400 200 1,2,4-TMB Concentration (µg/L)

MW-3

4/24/2016 2/24/2016 12/26/2015 $R^2 = 0.2777$ 10/27/2015 Date 8/28/2015 6/29/2015 4/30/2015 0 3/1/2015 1,3,5-TMB Concentration (µg/L) 350 300 250 20 100

MW-3 1,3,5-TMB Concentrations vs Time

4/24/2016 2/24/2016 12/26/2015 10/27/2015 $R^2 = 0.4024$ Date 8/28/2015 6/29/2015 4/30/2015 0 3/1/2015 7,000 10,000 9,000 8,000 9,000 5,000 4,000 3,000 2,000 1,000 Xylenes Concentration (μg/L)

Xylenes Concentrations vs Time

MW-3

4/24/2016 2/24/2016 12/26/2015 **Benzene Concentrations vs Time** 10/27/2015 Date 8/28/2015 6/29/2015 4/30/2015 0 3/1/2015 Benzene Concentration (µg/L) 2000 1800 1600 400 200 1400 900

MW-4

4/24/2016 2/24/2016 12/26/2015 $R^2 = 0.0174$ **Toluene Concentrations vs Time** 10/27/2015 Date 8/28/2015 6/29/2015 4/30/2015 0 3/1/2015 10,000 000'6 8,000 1,000 7,000 6,000 5,000 4,000 3,000 2,000 Toluene Concentration (µg/L)

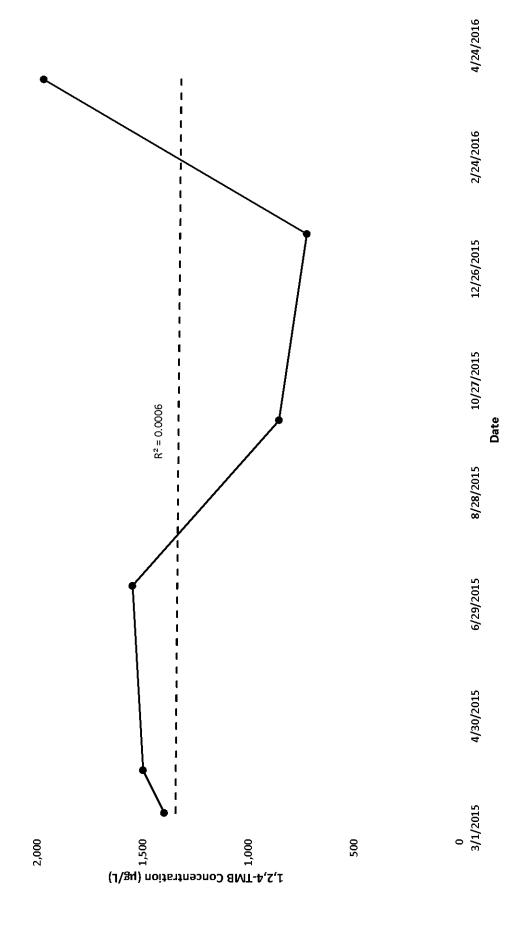
2/24/2016 12/26/2015 **Ethylbenzene Concentrations vs Time** 10/27/2015 $R^2 = 0.0007$ MW-4 8/28/2015 6/29/2015 4/30/2015 0 3/1/2015 200 3,000 2,500

4/24/2016

4/24/2016 2/24/2016 12/26/2015 Naphthalene Concentrations vs Time 10/27/2015 $R^2 = 0.1947$ MW-4 Date 8/28/2015 6/29/2015 4/30/2015 0 3/1/2015 400 350 300 Maphthalene Concentration ($\mu g/L$) $\frac{25}{50}$ 100 20

MW-4 1,2,4-TMB Concentrations vs Time

2,500

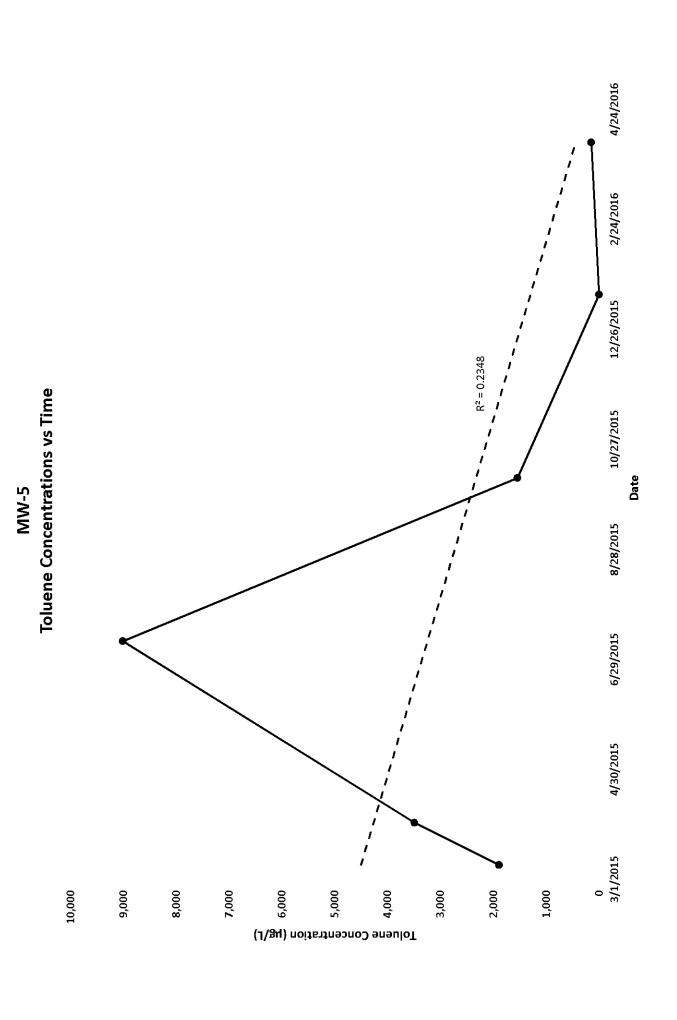


4/24/2016 2/24/2016 12/26/2015 MW-4 1,3,5-TMB Concentrations vs Time 10/27/2015 $R^2 = 0.3436$ Date 8/28/2015 6/29/2015 4/30/2015 0 3/1/2015 1,3,5-TMB Concentration (µg/L) 2500 2000 200

4/24/2016 2/24/2016 12/26/2015 **Xylenes Concentrations vs Time** 10/27/2015 $R^2 = 0.142$ Date 8/28/2015 6/29/2015 4/30/2015 0 3/1/2015 12,000 10,000 8,000 6,000 4,000 2,000

Xylenes Concentration (μg/L)

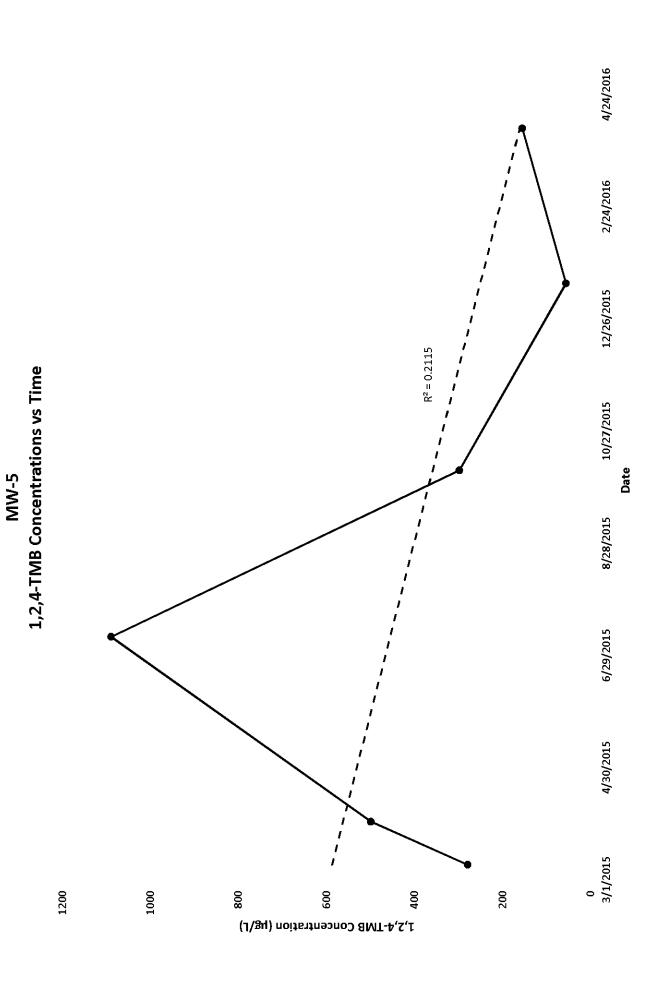
4/24/2016 2/24/2016 12/26/2015 $R^2 = 0.3662$ **Benzene Concentrations vs Time** 10/27/2015 Date 8/28/2015 6/29/2015 4/30/2015 0 3/1/2015 200 3,000 2,500 1,000

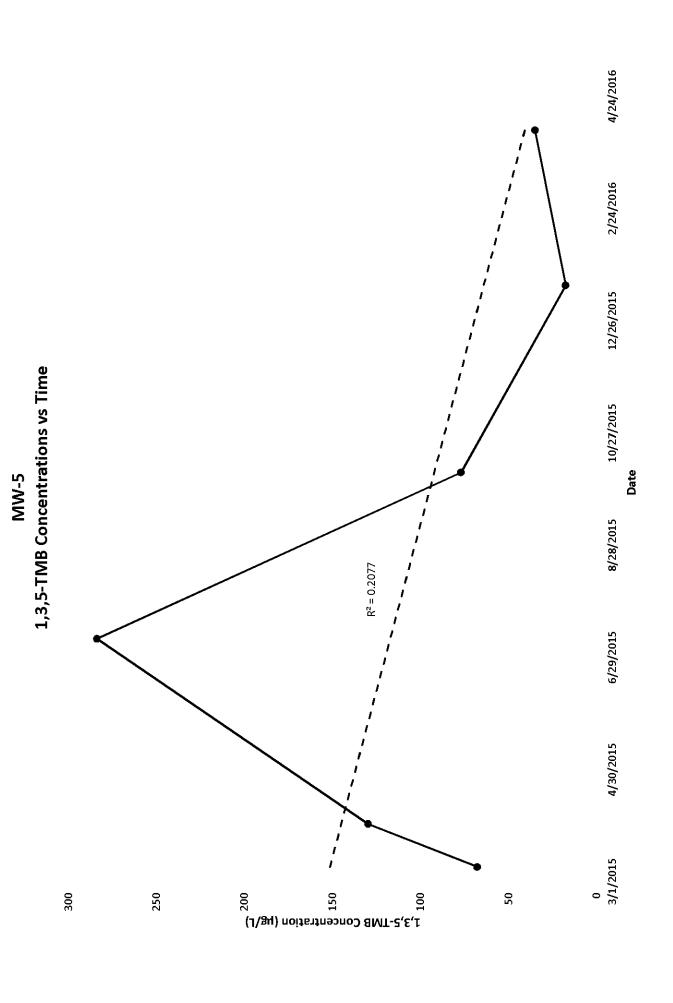


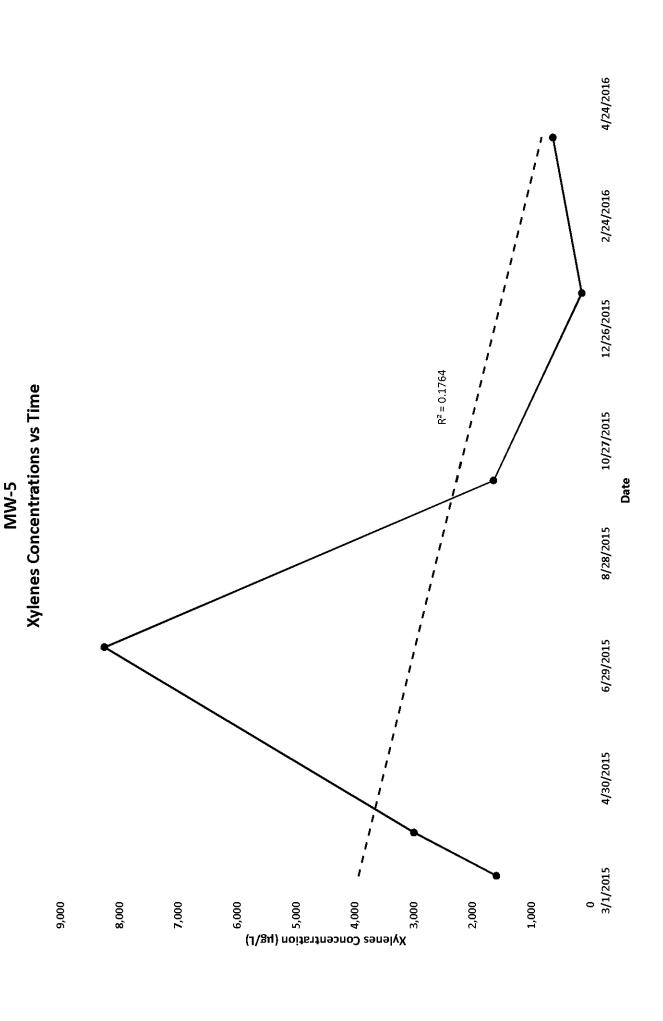
4/24/2016 2/24/2016 12/26/2015 $R^2 = 0.4944$ 10/27/2015 Date 8/28/2015 6/29/2015 4/30/2015 0 3/1/2015 Ethylbenzene Concentration (µg/L) 1800 1600 1400 400 200

Ethylbenzene Concentrations vs Time

4/24/2016 2/24/2016 12/26/2015 $R^2 = 0.3475$ Naphthalene Concentrations vs Time 10/27/2015 Date 8/28/2015 6/29/2015 4/30/2015 0 3/1/2015 Maphthalene Concentration (μ_g/L) S 50 20 350 300 250 100

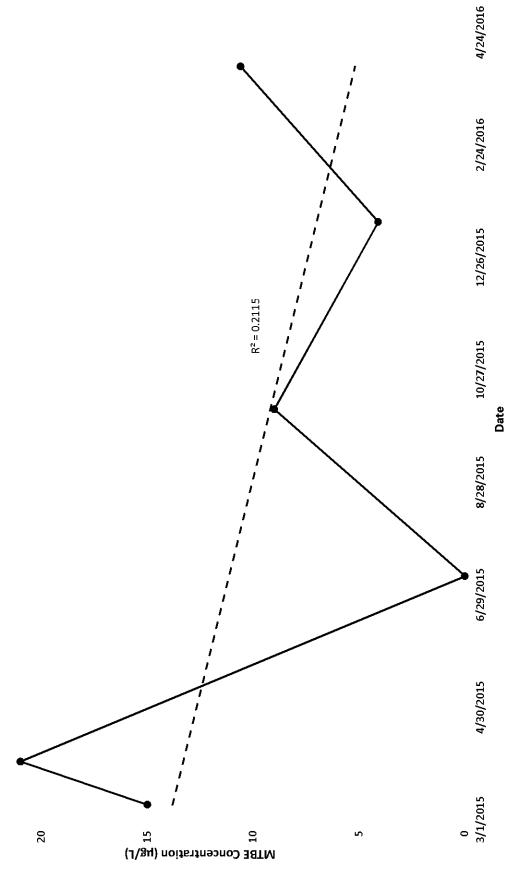






MTBE Concentrations vs Time MW-5

25



3/27/2016 2/26/2016 11/28/2015 12/28/2015 1/27/2016 **Benzene Concentrations vs Time** Date MW-7 $R^2 = 0.1265$ 9/29/2015 10/29/2015 8/30/2015 7/31/2015 7/1/2015 200 3,000 2,500 1,000

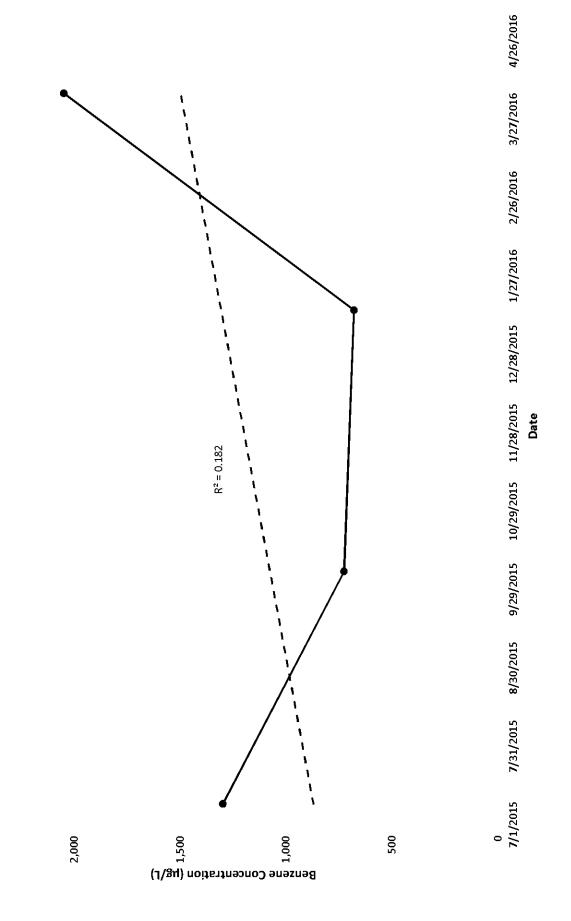
4/26/2016

4/26/2016 3/27/2016 9/29/2015 10/29/2015 11/28/2015 12/28/2015 1/27/2016 2/26/2016 Date 8/30/2015 7/31/2015 0 **7/**1/2015 3,000 2,500 200 3,500 1,000

Toluene Concentrations vs Time

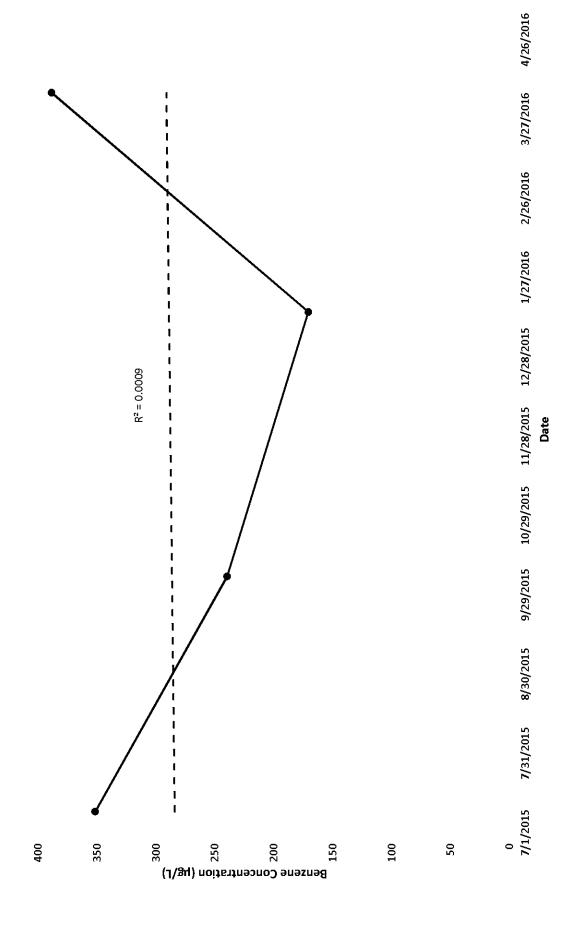
MW-7
Ethylbenzene Concentrations vs Time

2,500



MW-7 Naphthalene Concentrations vs Time

450



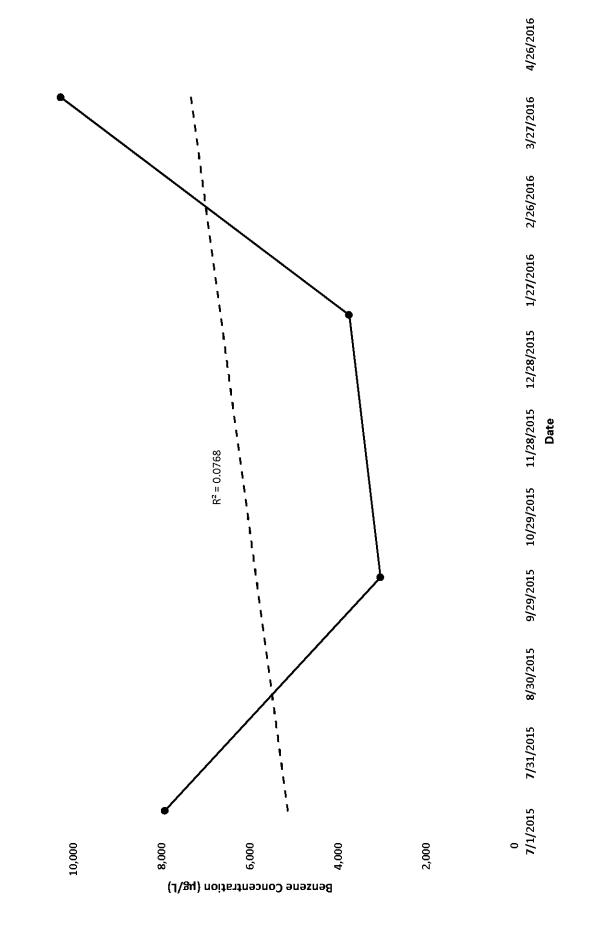
4/26/2016 3/27/2016 11/28/2015 12/28/2015 1/27/2016 2/26/2016 1,2,4-TMB Concentrations vs Time Date $R^2 = 0.2138$ 9/29/2015 10/29/2015 8/30/2015 7/31/2015 7/1/2015 Benzene Concentration (µg/L) 200 1,800 1,600 1,400 900 400

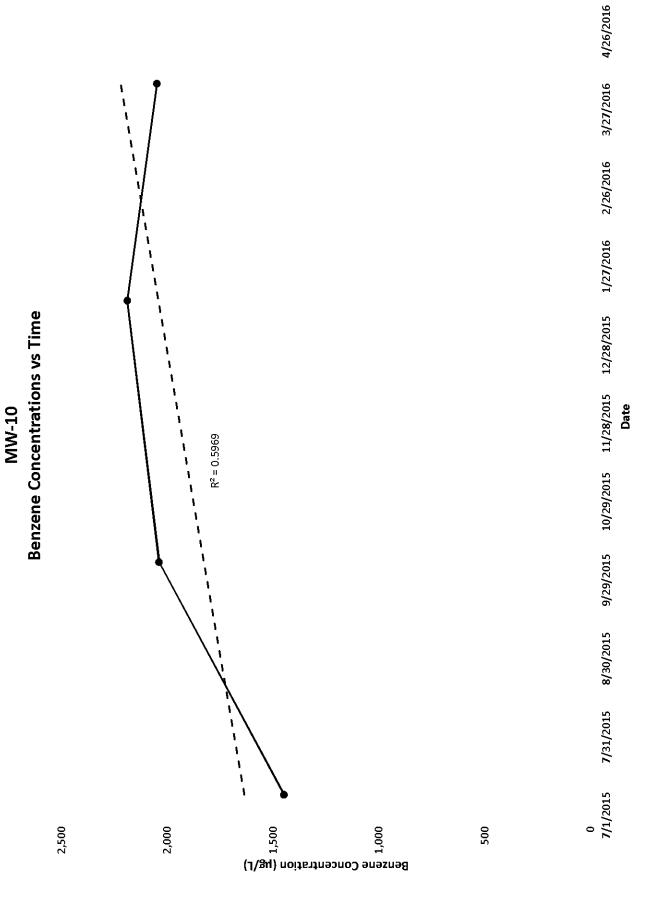
3/27/2016 2/26/2016 10/29/2015 11/28/2015 12/28/2015 1/27/2016 1,3,5-TMB Concentrations vs Time Date $R^2 = 0.133$ 9/29/2015 8/30/2015 7/31/2015 0 **7/**1/2015 400 350 300 100 20

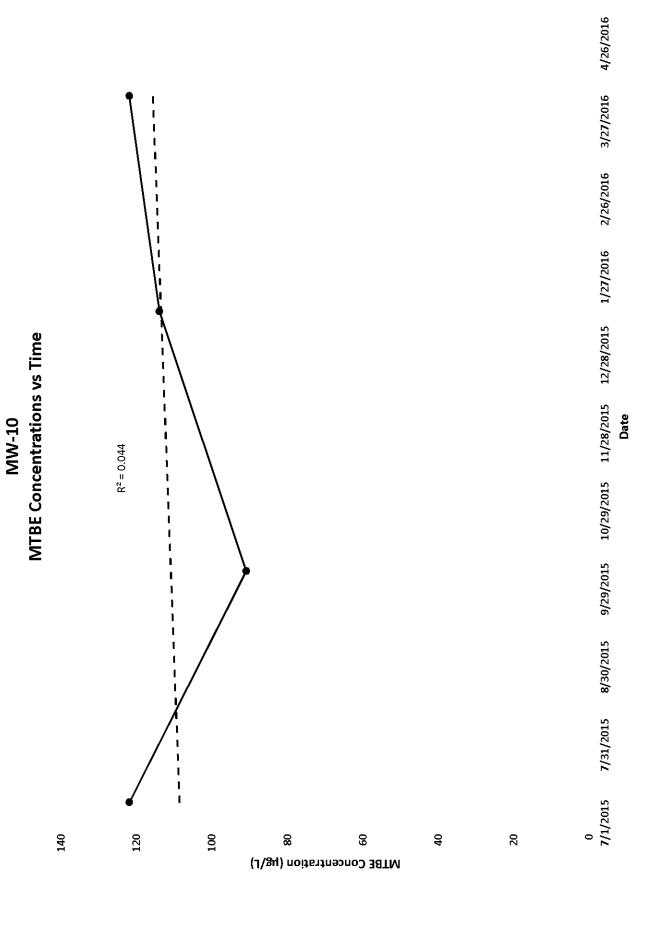
4/26/2016

MW-7 Xylenes Concentrations vs Time

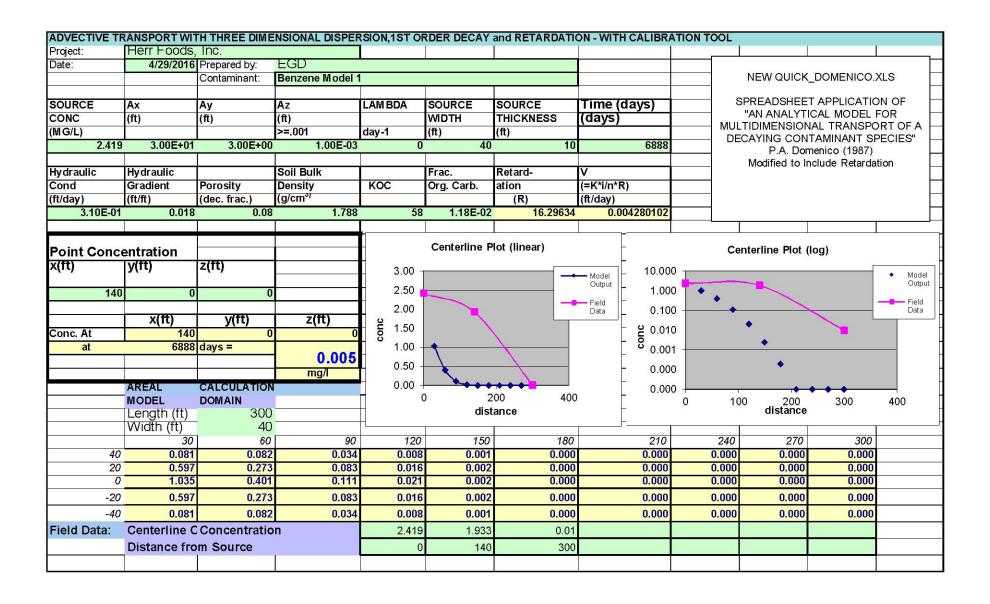
12,000

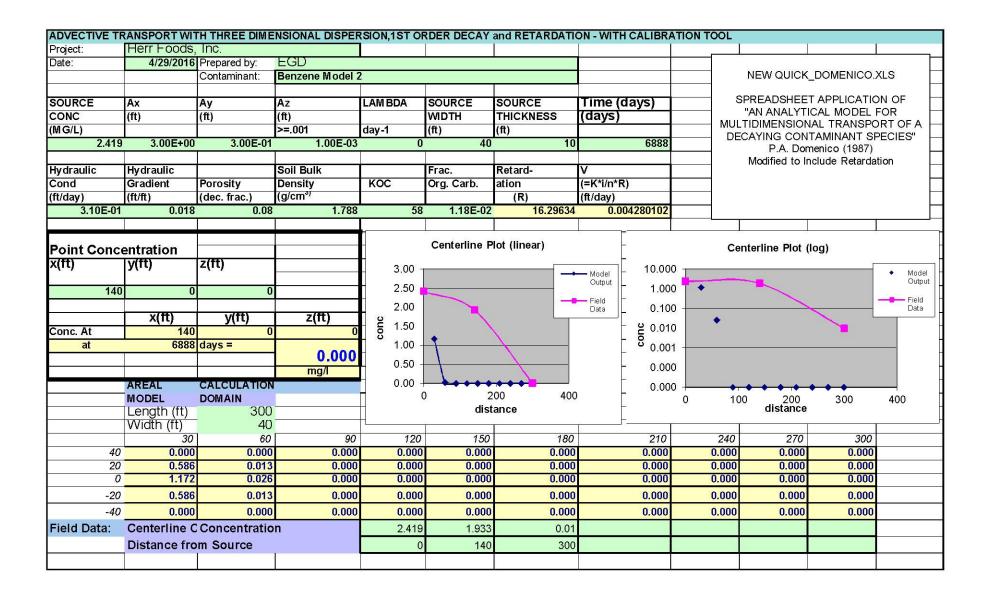


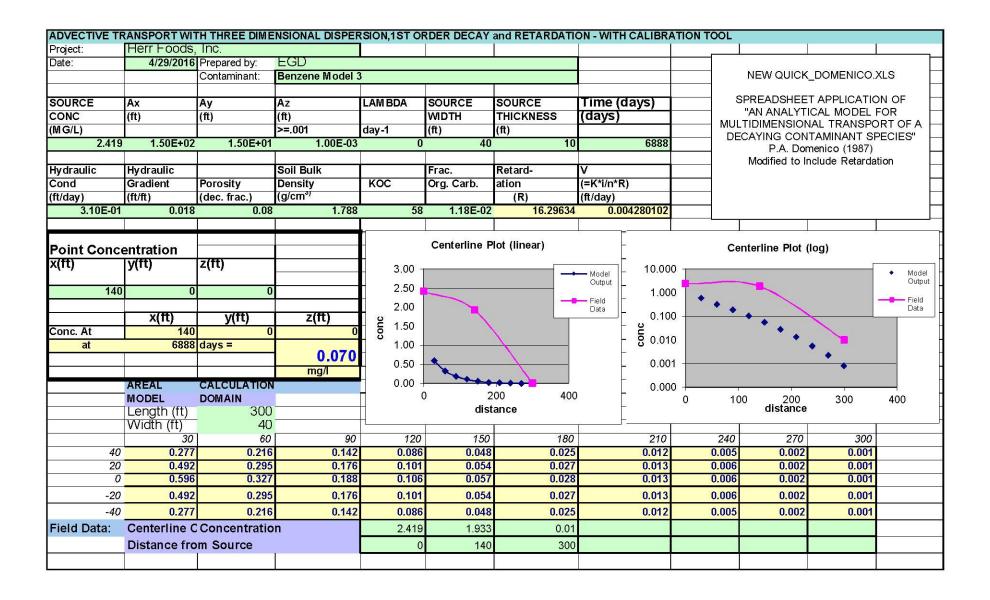


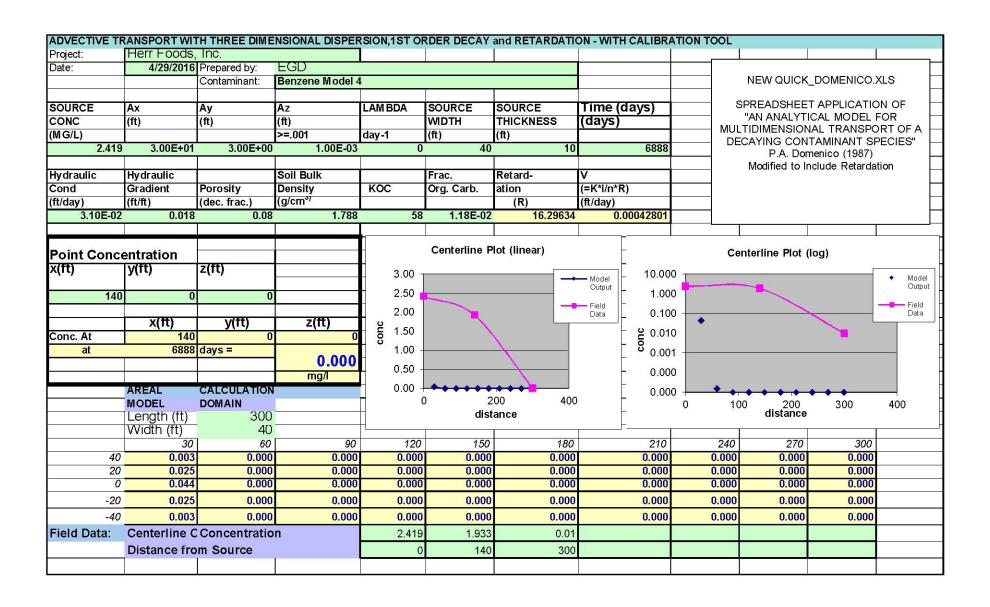


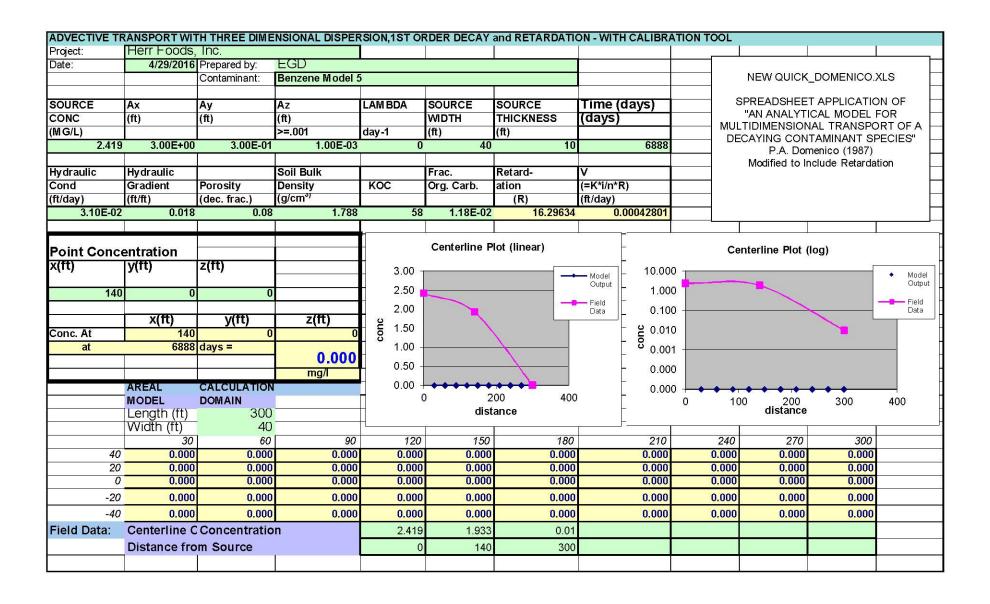
APPENDIX N Quick Domenico Model Output

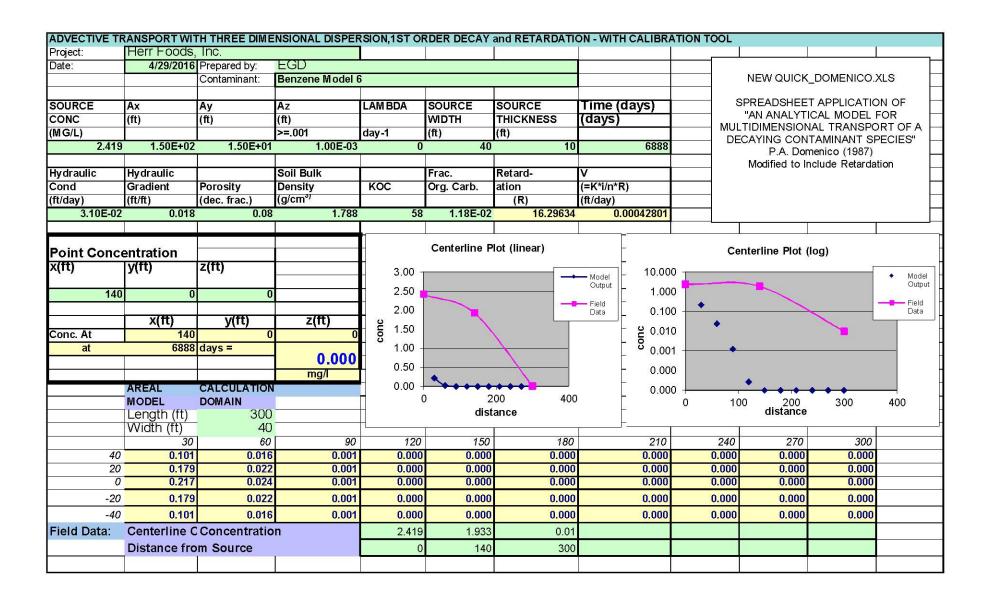


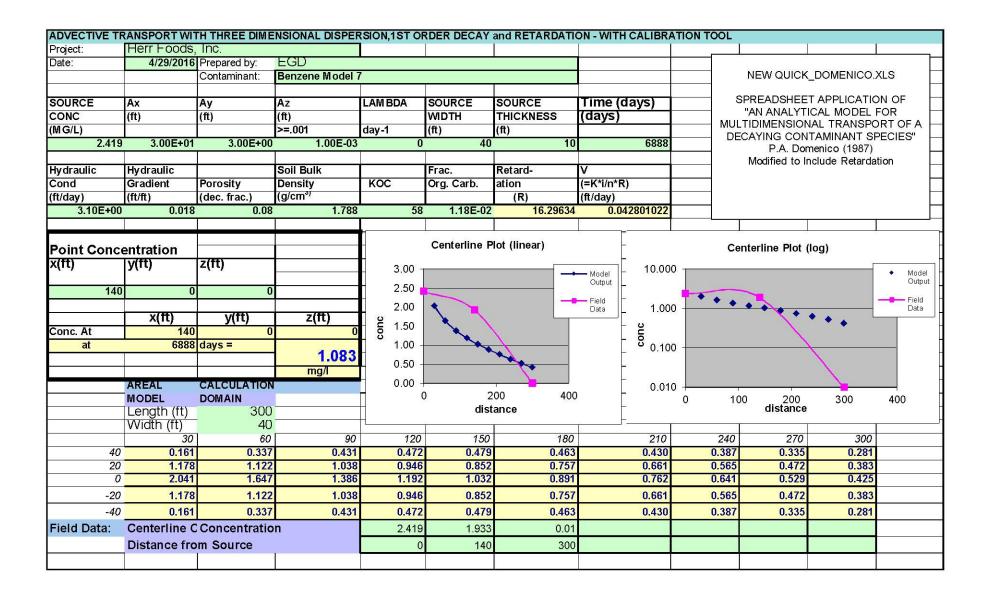


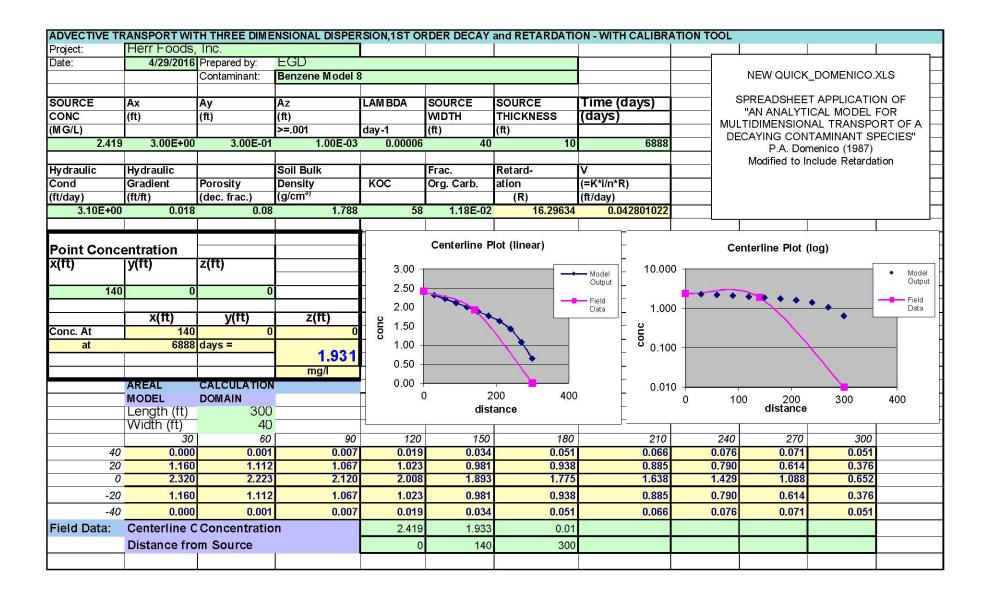


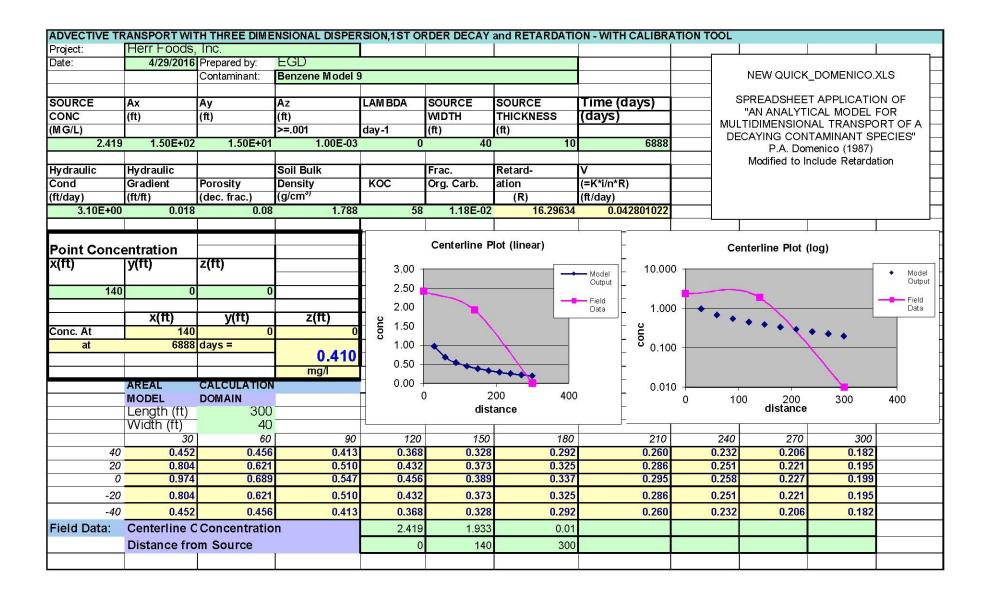


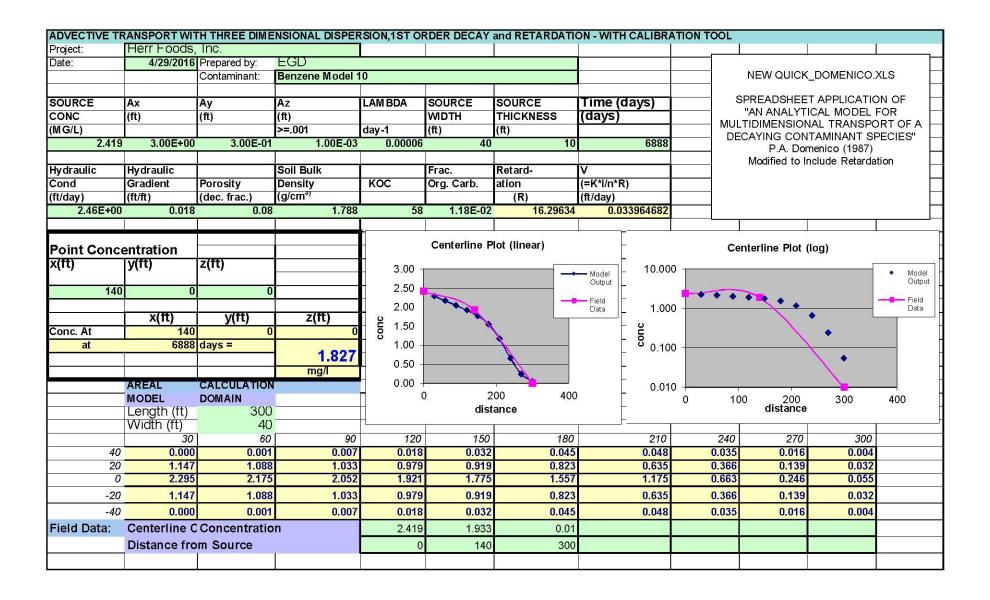


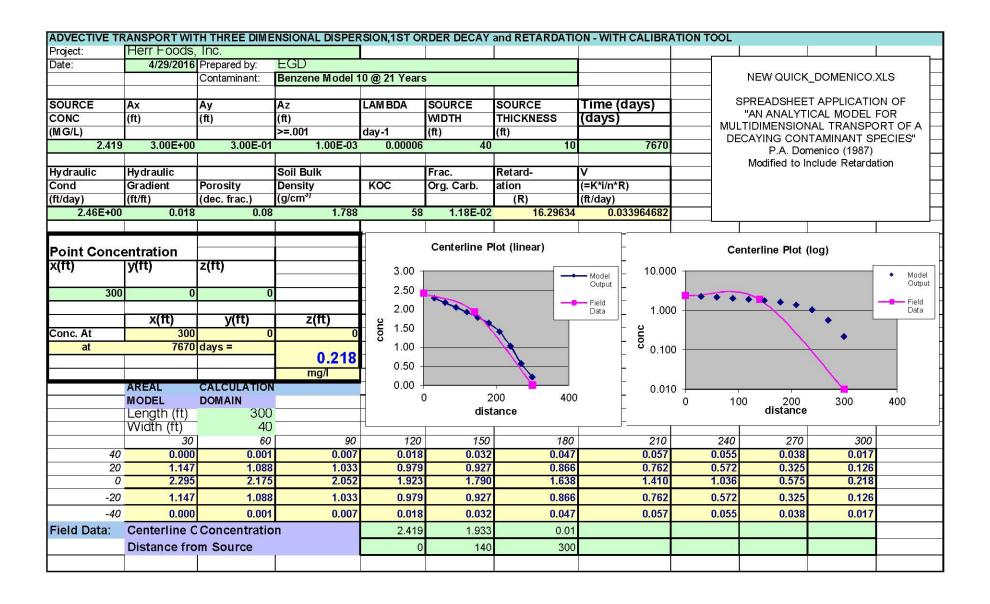


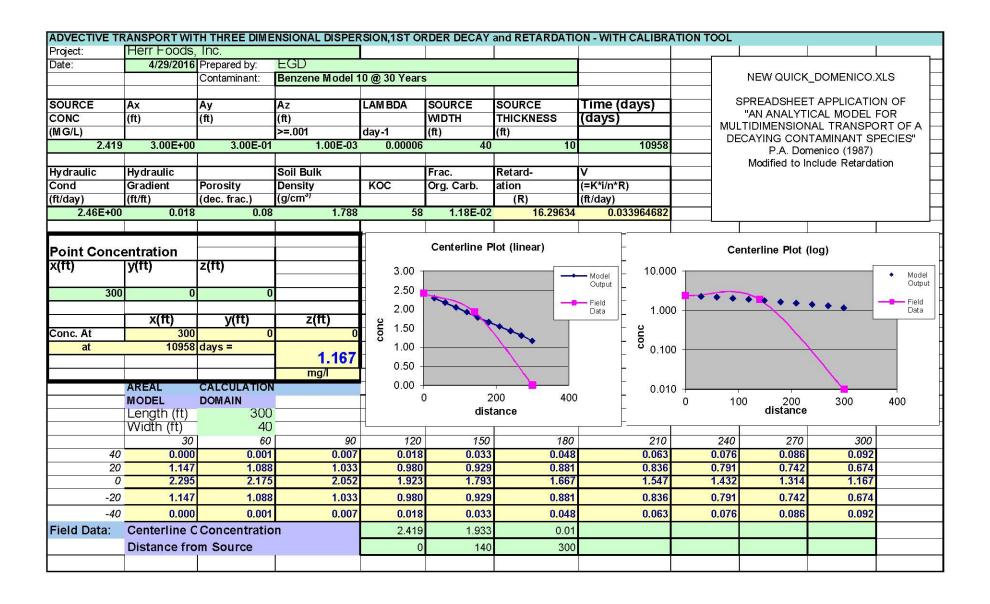


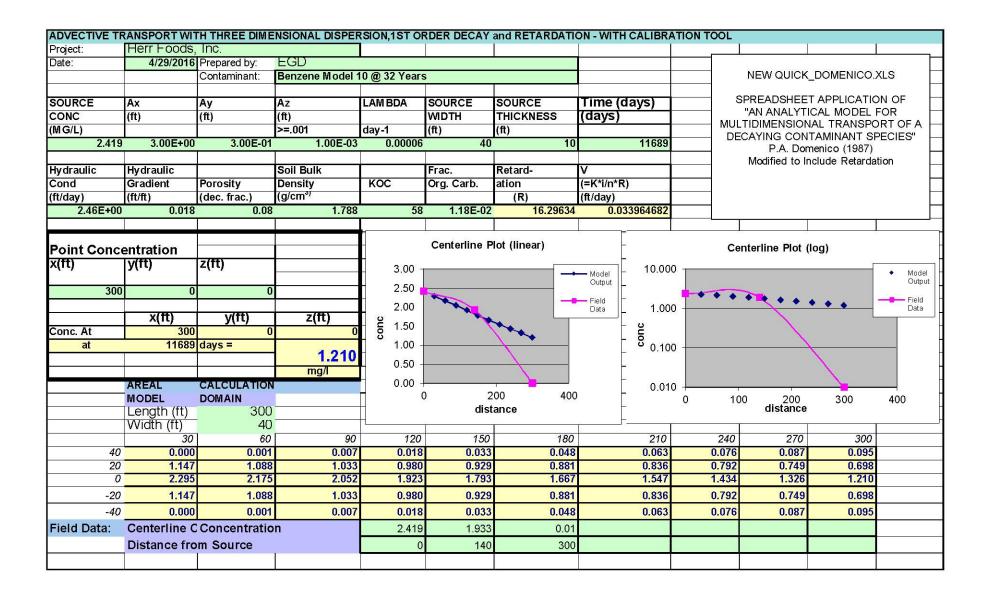


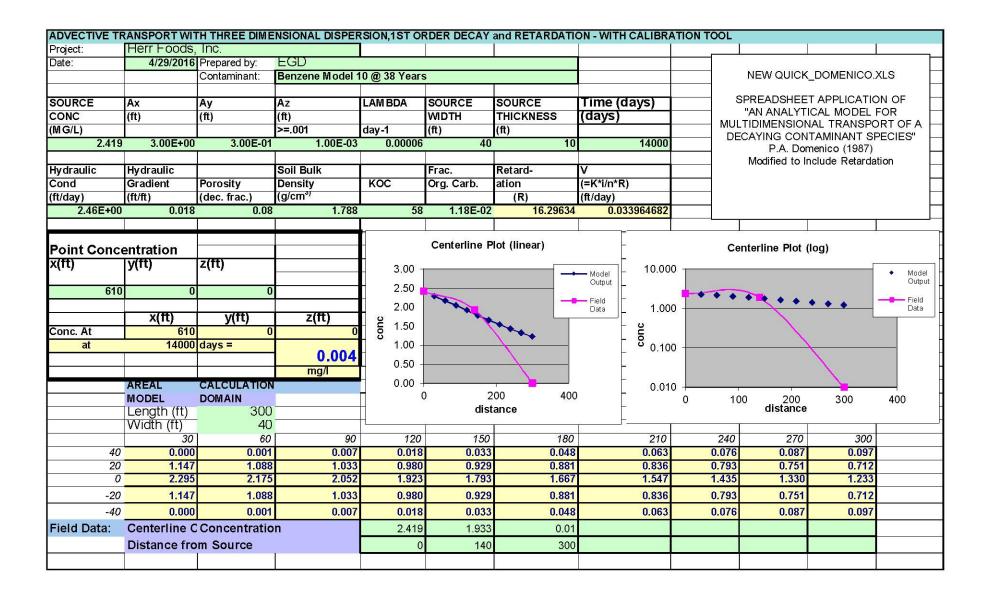


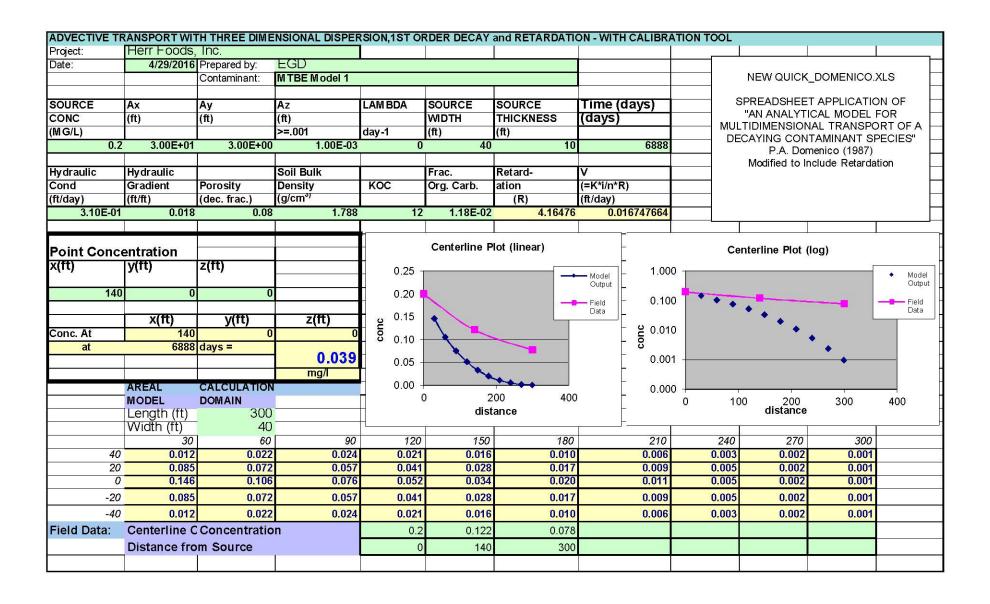


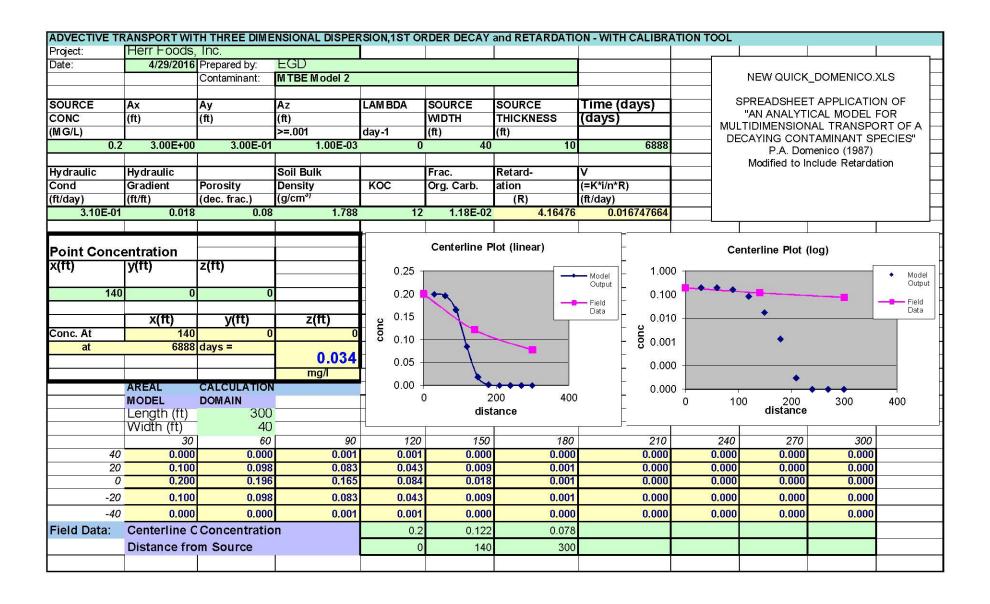


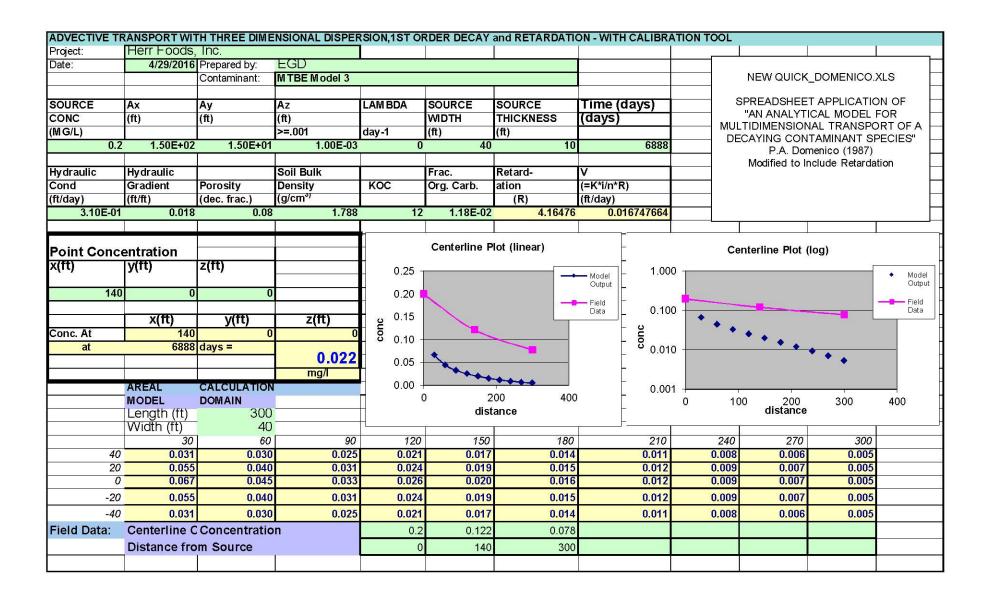


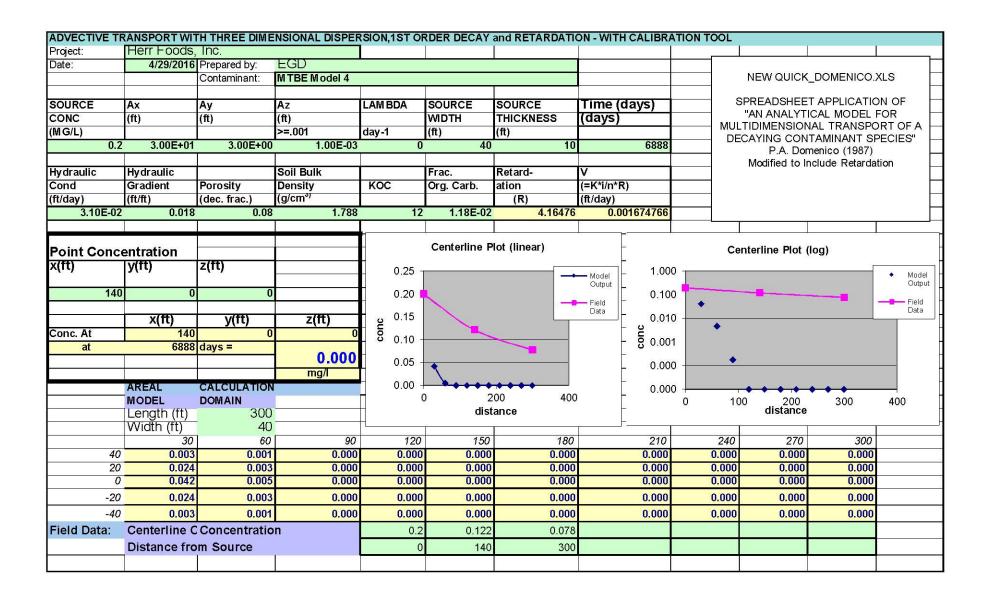


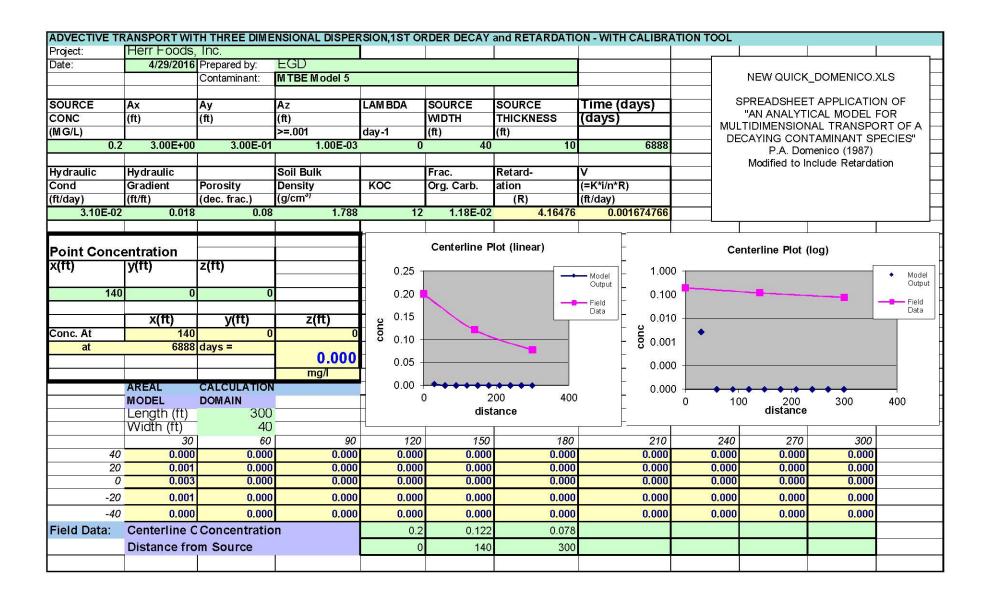


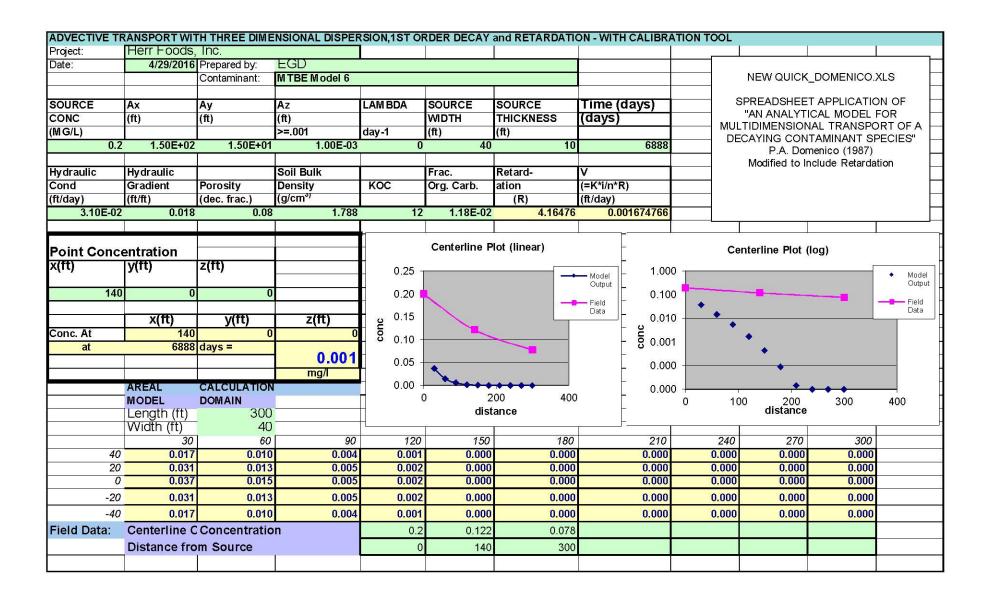


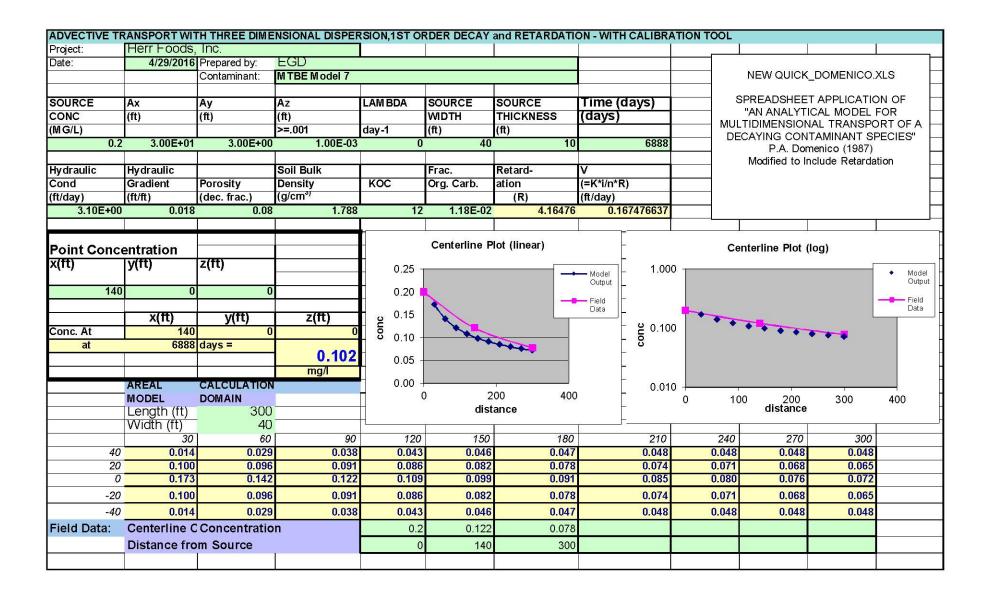


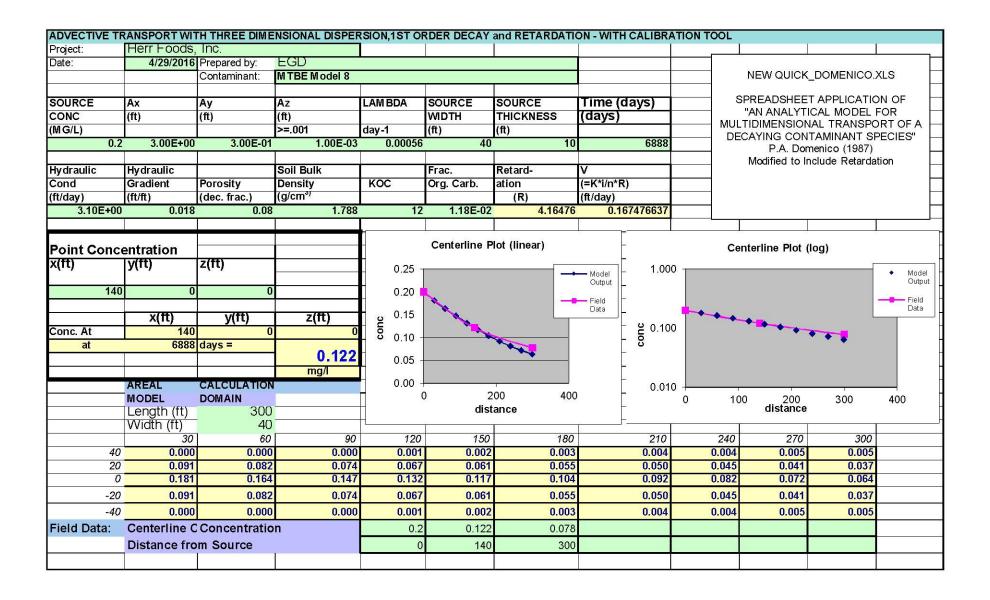


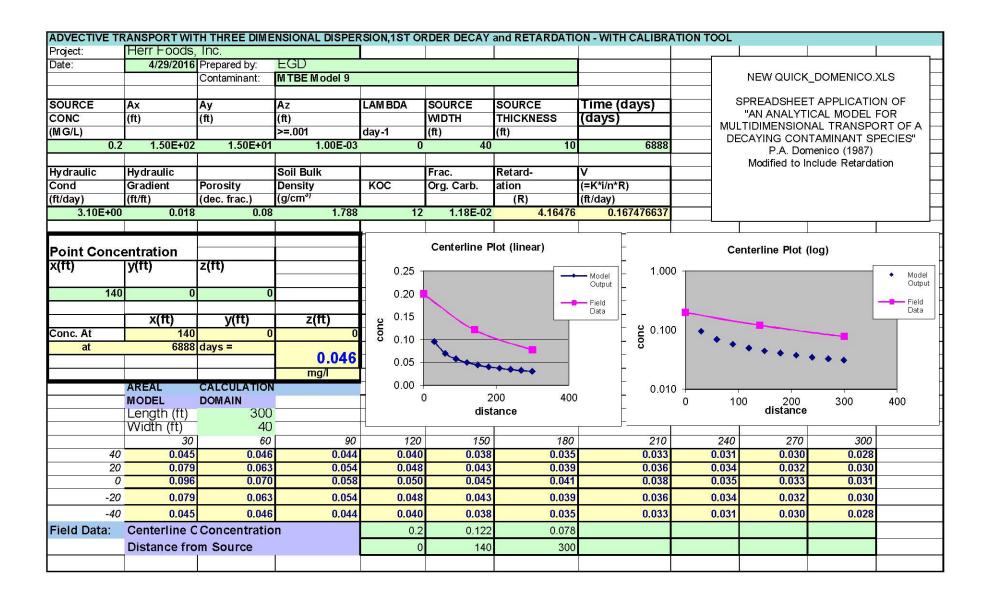


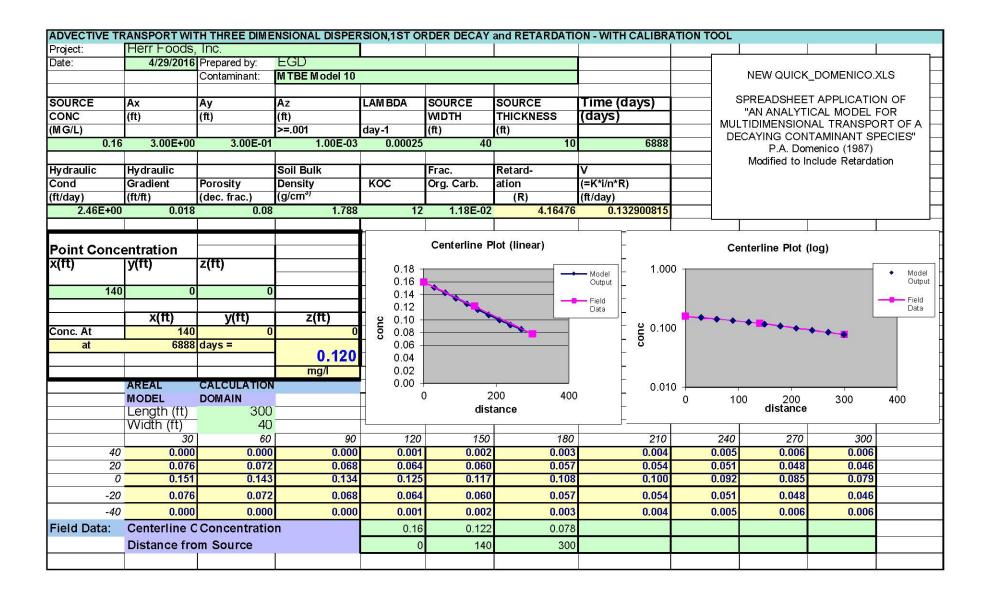


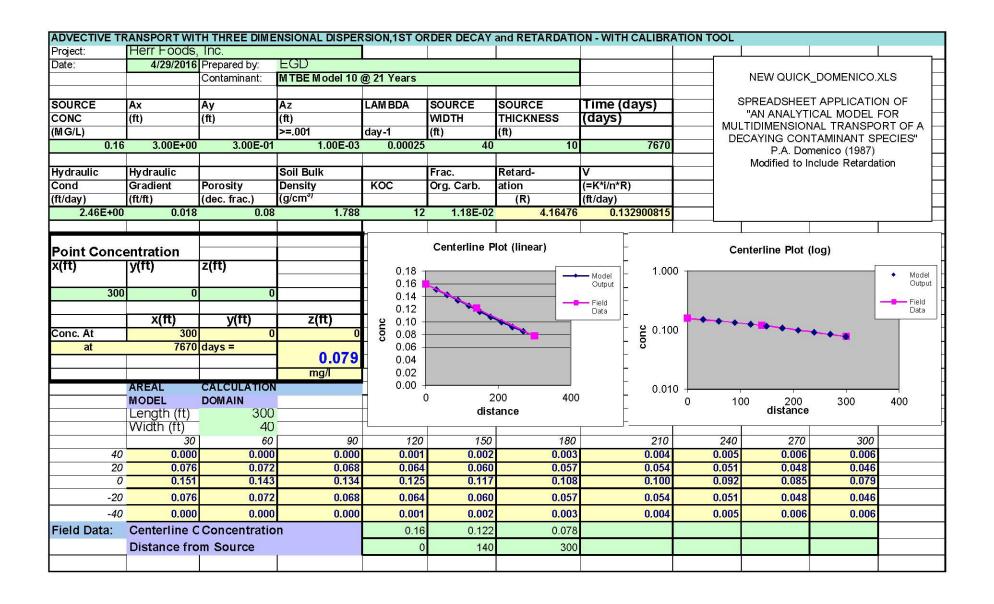


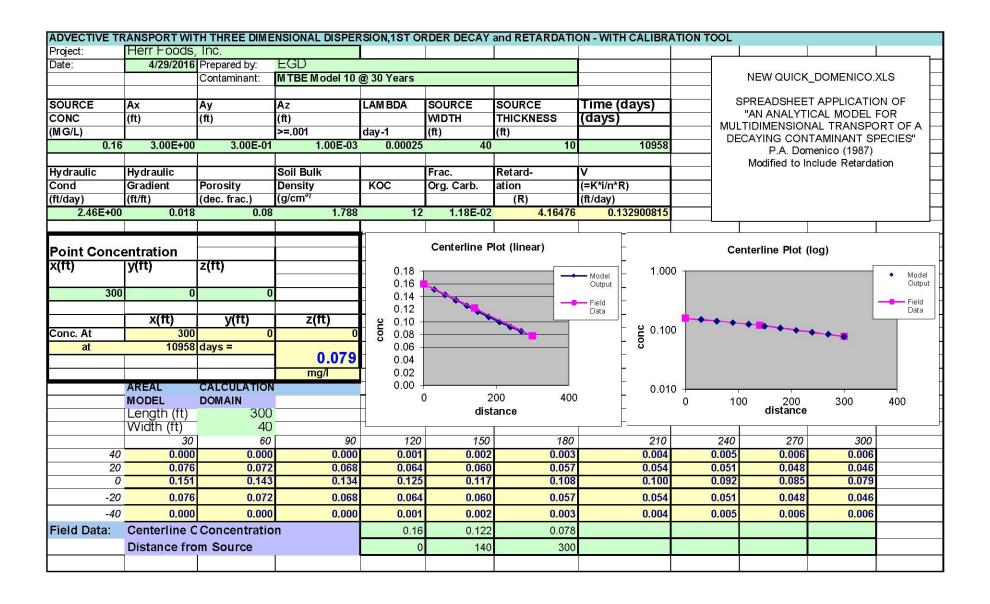


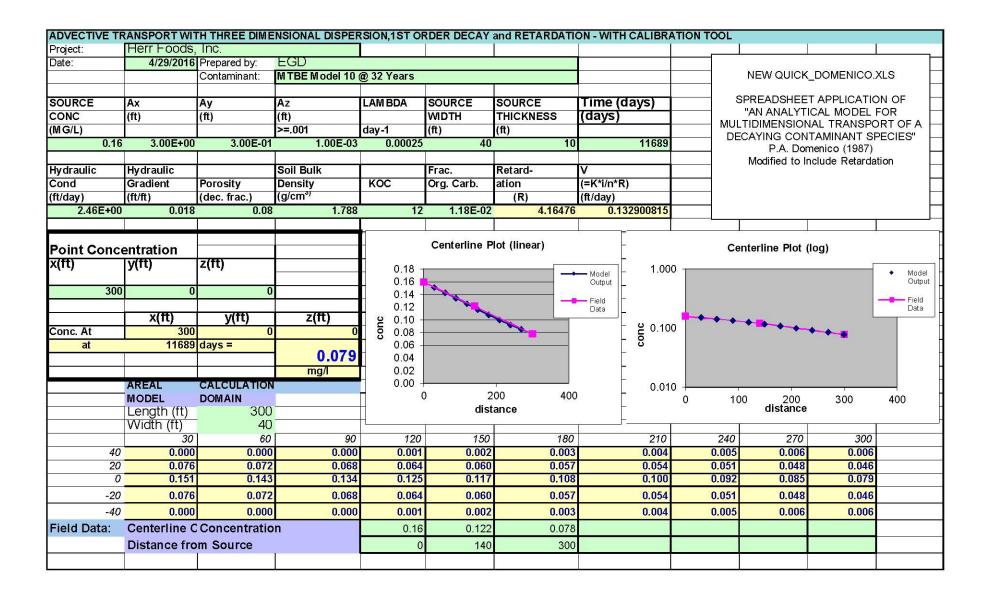


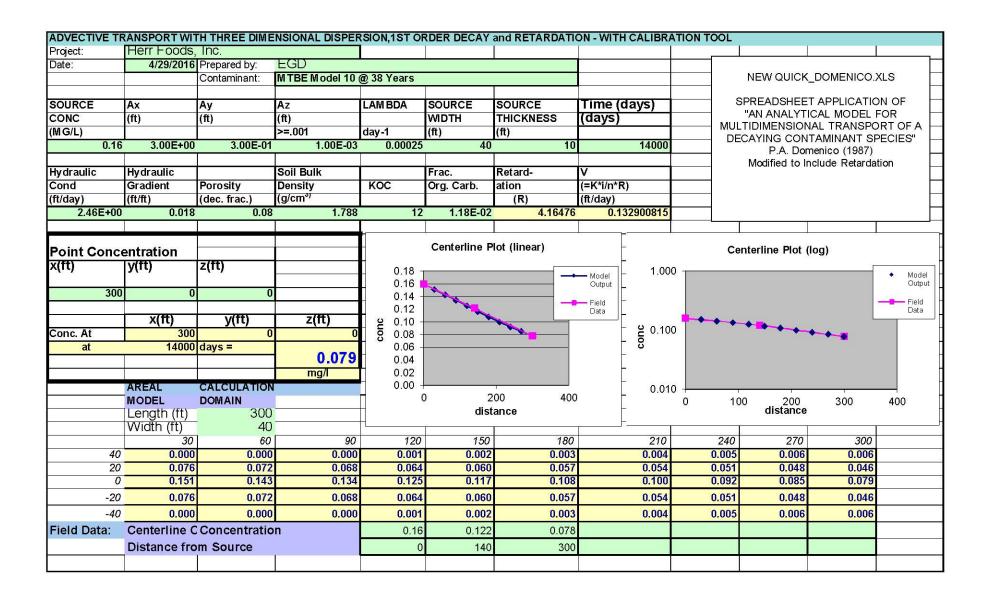












APPENDIX O SWLOAD5 Model Output

METHOD FOI	R ESTIMATNG FL	OW. AVERA	GE CONCE	ENTRATION	ANDMASS	LOADING T	TO SURFAC	E WATER FR	OM GROUND	WATER				1
	Herr Foods, In													
Date:	5/5/2016	10,000									PA DEP	ARTMENT		0
Contaminant:	Benzene	N.		Prepared by	<i>γ</i> .	EGD	No. of the second		In a	OF E	NVIRONMEN	NTAL PROT	ECTION	*
SOURCE				The state of the s		19500 00 V 00 00 X					207-01-02-03-03-03-03-03-03-03-03-03-03-03-03-03-	AD5B.XLS		
CONC	Ax	Ay	Az	LAMBDA	SOURCE	SOURCE			- 3	200000000000000000000000000000000000000	METHOD FO			\$
(units)	(ft)	(ft)	(ft)		WIDTH	THICKNES	Time			— сомти	AMINANT LC		SURFACE	
ug/l	>.0001	>.0001	>=.0001	day-1	(ft)	(ft)	(days)			2		ATER sed on		8
2,419	3	0.3	1.00E-05	0.00006	40	10	1.00E+99				100 0000	enico (1987)		
	***							60	6	⊣ №	Modified to Include Retardation			
Hydraulic	Hydraulic		Soil Bulk		Frac.	Retard-	V				loanica to inc	Diade Netara	ation	
Cond	Gradient	Porosity	Density	кос	Org. Carb.	ation	(=K*i/n*R)							8
(ft/day)	(ft/ft)	(dec. frac.)	(g/cm ^{s)}		_	(R)	(ft/day)							
2.46E+00	0.018	0.08	1.788	58	1.18E-02	16.29634	0.0339647	21		4				, , , , , , , , , , , , , , , , , , ,
				-56.05	-44.84	-33.63	-22.42	-11.21	0	11.21	22.42	33.63	44.84	56.05
Edge Criterio	n (ug/l)	5	0	5.14706	45.763685	221.0339	610.61325	1047.78307	1233.61106	1047.7831	610.61325	221.03385	45.76368	5.14706
Higest mo	deled conc.	1233.61	-1.02	5.14706	45.763685	221.0339	610.61325	1047.78307	1233.61106	1047.7831	610.61325	221.03385	45.76368	5.14706
			-2.04	5.14706	45.763685	221.0339	610.61325	1047.78307	1233.61106	1047.7831	610.61325	221.03385	45.76368	5.14706
SURFACE W	ATER LOADING	RID	-3.06	5.14706	45.763685	221.0339	610.61325	1047.78307	1233.61106	1047.7831	610.61325	221.03385	45.76368	5.14706
Distance to S	tream (ft)	300	-4.08	5.14706	45.763685	221.0339	610.61325	1047.78307	1233.61106	1047.7831	610.61325	221.03385	45.76368	5.14706
Plume View V	Vidth (ft)	112.1	-5.1	5.14706	45.763685	221.0339	610.61325	1047.78307	1233.61106	1047.7831	610.61325	221.03385	45.76368	5.14706
Plume View D	Depth (ft)	10.2	-6.12	5.14706	45.763685	221.0339	610.61325	1047.78307	1233.61106	1047.7831	610.61325	221.03385	45.76368	5.14706
			-7.14	5.14706	45.763685	221.0339	610.61325	1047.78307	1233.61106	1047.7831	610.61325	221.03385	45.76368	5.14706
			-8.16	5.14706	45.763685	221.0339	610.61325	1047.78307	1233.61106	1047.7831	610.61325	221.03385	45.76368	5.14706
PENTOX N	NEEDED		-9.18	5.14706	45.763685	221.0339	610.61325	1047.78307	1233.61106	1047.7831	610.61325	221.03385	45.76368	5.14706
			-10.2	0.02528	0.2247746	1.085638	2.9991108	5.14633035	6.05905005	5.1463303	2.9991108	1.0856381	0.224775	0.02528
				Average	Groundwa	ter Conce	ntration	421.223	ua/l		-	*		
				Avelage	Groundwa	ter Conce	ii alion	721.223	ug/i					,
	-			Plume F	low.			0.00059	cte	0.00038	MCI			
				i lume r	1044			0.00039	UIS	0.00000	IVIOD			
				Mass Lo	ading to	Stream		603974.28	ug/day					
				Mass E0	ading to	ou cum		00007 4.20	agrady		l .			

METHOD FO	R ESTIMATNG FL	OW. AVERA	GE CONCE	ENTRATION	ANDMASS	LOADING T	TO SURFACI	E WATER FR	OM GROUND	WATER				Ī
	Herr Foods, In													
Date:	5/5/2016	20,000									PA DEP	ARTMENT		1
Contaminant:	MTBE	22		Prepared by	r.	EGD	e v			OFE	NVIRONMEN	NTAL PROTE	ECTION	8
SOURCE												AD5B.XLS		1
CONC	Ax	Ау	Az	LAMBDA	SOURCE	SOURCE			· · · · · · · · · · · · · · · · · · ·	Annual Control of Cont		OR ESTIMAT		20
(units)	(ft)	(ft)	(ft)		WIDTH	THICKNES	Time			COMTA		ADING TO	SURFACE	4
ug/l	>.0001	>.0001	>=.0001	day-1	(ft)	(ft)	(days)		9			ATER ed on		9
160	3	0.3	1.00E-05	0.00025	40	10	1.00E+99							1
	***							03		∃ ν	P.A. Domenico (1987) Modified to Include Retardation			
Hydraulic	Hydraulic		Soil Bulk		Frac.	Retard-	V			- '*				
Cond	Gradient	Porosity	Density	кос	Org. Carb.	ation	(=K*i/n*R)		8					3
(ft/day)	(ft/ft)	(dec. frac.)	(g/cm ^{s)}	1100.001.00000		(R)	(ft/day)			i i				1
2.46E+00	0.018	0.08	1.788	12	1.18E-02	4.16476	0.1329008							
				-30	-24	-18	-12	-6	0	6	12	18	24	30
Edge Criterio	n (ug/l)	5	0	20.80683	34.896401	50.84066	65.357818	75.3402492	78.8673206	75.340249	65.357818	50.840656	34.8964	20.80683
Higest mo	deled conc.	78.8673	-1.01	20.80683	34.896401	50.84066	65.357818	75.3402492	78.8673206	75.340249	65.357818	50.840656	34.8964	20.80683
			-2.02	20.80683	34.896401	50.84066	65.357818	75.3402492	78.8673206	75.340249	65.357818	50.840656	34.8964	20.80683
SURFACE WA	ATER LOADING	RID	-3.03	20.80683	34.896401	50.84066	65.357818	75.3402492	78.8673206	75.340249	65.357818	50.840656	34.8964	20.80683
Distance to S	tream (ft)	300	-4.04	20.80683	34.896401	50.84066	65.357818	75.3402492	78.8673206	75.340249	65.357818	50.840656	34.8964	20.80683
Plume View V	Vidth (ft)	60	-5.05	20.80683	34.896401	50.84066	65.357818	75.3402492	78.8673206	75.340249	65.357818	50.840656	34.8964	20.80683
Plume View D	Depth (ft)	10.1	-6.06	20.80683	34.896401	50.84066	65.357818	75.3402492	78.8673206	75.340249	65.357818	50.840656	34.8964	20.80683
		7,000,000	-7.07	20.80683	34.896401	50.84066	65.357818	75.3402492	78.8673206	75.340249	65.357818	50.840656	34.8964	20.80683
			-8.08	20.80683	34.896401	50.84066	65.357818	75.3402492	78.8673206	75.340249	65.357818	50.840656	34.8964	20.80683
PENTOX N	IEEDED		-9.09	20.80683	34.896401	50.84066	65.357818	75.3402492	78.8673206	75.340249	65.357818	50.840656	34.8964	20.80683
			-10.1	2.04641	3.4321588	5.000321	6.4281245	7.40992456	7.7568219	7.4099246	6.4281245	5.0003209	3.432159	2.04641
				Average	ı Groundwa	ter Conco	ntration	47.8504	ua/l					
				Average	Journa	rei Collcei	ilialion	47.0004	ug/i					
	-			Plume F	low.			0.00031	cte	0.0002	MCSD			-
				i idille i	1044			0.00001	UIS	0.0002	IVIOD			
				Mass Lo	ading to	Stream		36362.97	ud/day					
				IVIGOS EO	ading to	oci cui ii		00002.31	agrady					

APPENDIX P PENTOXSD Model Output

PENTOXSD

Modeling Input Data

Stre	eam ode	RMI	Elevat (ft)		rainag Area sq mi)		Slope	PWS (m	With gd)		A	ipply FC	_			
6	8840	1.44	49	5.00	0.	04	0.00000		0.00			V				
									Stream D	ata						
		LFY	Trib Flow	Strean Flow			Rch Width	Rch Depth	Rch Velocity	Rch Trav Time	<u>Tributa</u> Hard	<u>ery</u> pH	<u>Strear</u> Hard	<u>n</u> pH	Analys Hard	<u>is</u> pH
		(cfsm)	(cfs)	(cfs)			(ft)	(ft)	(fps)	(days)	(mg/L)		(mg/L)		(mg/L)	
Q7-10)	0.1	0	0.0011	6	0	1.5	0	0	0	100	7	0	0	0	0
Qh			0	0.008	3	0	3.3	0	0	0	100	7	0	0	0	0
								D	ischarge I	Data						
	Na	ıme	Pern Num	ber	dsting Dísc Flow		rmitted Disc Flow	Design Disc Flow	Reserve Factor		CFC PMF	THH PMF	CRL PMF	Disc Hard	Disc pH	
				(mgd)	(1	mgd)	(mgd)						(mg/L)		
G	W Dis	scharge	01		5E-05		0	0	0	0	0	0	0	100	7	_
								Pa	arameter E	Data						
	Pa	arameter N	lame		Dis Cor	-	Trib Conc	Diso Daily CV	/ Hourl			Fate Coe		Crit Mod	Max Disc Conc	
					(μg/	L)	(µg/L)			(µg/	L)	- constant and the control of the co	·		(μg/L)	
BENZ	ENE				421.	223	0	0.	5 0.5	5 0	0	0	0	1	0	
MTBE	*				47.8	504	0	0.	5 0.5	6 0	0	0	0	1	0	

Strea Cod		Elevat (ft)		Drainag Area (sq mi		Slope		With gd)		ı	Apply FC				
68	140 0.00	39	0.00	0	.98	0.00000)	0.00			✓	_			
•								Stream D	ata						
	LFY	Trib Flow	Stre FI		/D atio	Rch Width	Rch Depth	Rch Velocity	Rch Trav Time	<u>Tribut</u> Hard	<u>ary</u> pH	<u>Strear</u> Hard	m pH	<u>Analys</u> Hard	<u>iis</u> pH
	(cfsm)	(cfs)	(c	fs)		(ft)	(ft)	(fps)	(days)	(mg/L)		(mg/L)		(mg/L)	
Q7-10	0.1	0	0.00	592	0	3	0	0	0	100	7	0	0	0	0
Qh		0	,	0.29	0	6	0	0	0	100	7	0	0	0	0
							Į.	Discharge	Data						
	Name	Pern Num		Existing Disc Flow		ermitted Disc Flow	Design Disc Flow	Reserve Factor		CFC PMF	THH PMF	CRL PMF	Disc Hard	Disc pH	
				(mgd)	(mgd)	(mgd)						(mg/L)		
				0		0	0	0	0	0	0	0	100	7	
							P	arameter [Data						
	Parameter N	lame		Dis Co		Trib Conc	Dis Dail C\	y Hour	ly Con		n Fate Coel		Crit Mod	Max Disc Conc	
				(µд	/L)	(μg/L		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(μg/					(µg/L)	
BENZE					0	0	0.				0	0	1	0	
MTBE*					0	0	0.	.5 0.5	5 0	0	0	0	1	0	

PENTOXSD Analysis Results

Recommended Effluent Limitations

<u>SWP Basir</u> 07K	Stream Code: 6840			<u>Stream</u> NORTHEAS			
RMI	Name		rmit nber	Disc Flow (mgd)			
1.44	GW Discharge	+	01	0.0000	_		
		Effluent Limit			Max. Daily	Most S	Stringent
	Parameter	(μg/L)	Gove Crite		Limit (µg/L)	WQBEL (μg/L)	WQBEL Criterion
BENZENE		185.15	CF	L	288.865	185.15	CRL
MTBE*		47.85	INP	UT	74.654	448.479	THH

PENTOXSD Analysis Results

Hydrodynamics

<u>s</u>	WP Basi i 07K	1		n Code: 840			<u>Strea</u> NORTHE	m Name AST CRI	-		
RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope	Depth (ft)	Width (ft)	WD Ratio	Velocity (fps)	Reach Trav Time (days)	CMT (min)
					Q7	-10 Hyc	drodyna	mics			
1.440	0.0012	0	0.0012	0.00005	0.0138	0.0736	1.5	20.389	0.0110	7.9983	1.2
0.000	0.0059	0	0.0059	NA	0	0	0	0	0	0	NA
					Q	h Hydr	odynan	nics			
1.440	0.0083	0	0.0083	0.00005	0.0138	0.0781	3.3	42.236	0.0324	2.716	5.74
0.000	0.29	0	0.29	NA	0	0	0	0	0	0	NA

PENTOXSD Analysis Results

Wasteload Allocations

RMI	Name	Permit N	lumber						
1.44	GW Discharge	01							
					AFC				
Q7-	-10: CCT (min) 1.2	PMF	1	Analysis	spH 7	Analysis	Hardness	100
	Parameter		Stream Conc (µg/L)	Stream CV	Trib Conc (μg/L)	Fate Coef	WQC (μg/L)	WQ Obj (μg/L)	WLA (μg/L)
	BENZENE		(μg/ε) 0	0	θ9/Ε/	0	640	640	14351.33
	BENZENE		U	U	U	U	640	040	14351.33
	MTBE*		0	0	0	0	NA	NA	NA
				c	FC				
Q7-10:	CCT (min)	1.2	PMF	1	Analysis	pH 7	Analysi	s Hardness	100
	Parameter		Stream Conc.	Stream CV	Trib Conc.	Fate Coef	WQC	WQ Obj	WLA
	BENZENE		(μg/L) 0	0	(μg/L) 0	0	(μg/L) 130	(μg/L)	(μg/L)
	BENZENE		U	U	U	U	130	130	2915.114
	MTBE*		0	0	0	0	NA	NA	NA
				Т	нн				
Q7-10:	CCT (min)	1.2	PMF	NA	Analysis	spH NA	Analysi	s Hardness	NA
	Parameter		Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (μg/L)	WQ Obj (μg/L)	WLA (μg/L)
	BENZENE		0	0	0	0	NA	NA	NA
	MTBE*		0	0	0	0	20	20	448.479
				c	RL				
Qh:	CCT (min)	5.74	1 PMF	1					
	Parameter		Stream Conc	Stream CV	Trib Conc	Fate Coef	WQC	WQ Obj	WLA
			(µg/L)		(μg/L)		(μg/L)	(μg/L)	(μg/L)
	BENZENE		0	0	0	0	1.2	1.2	185.15
	MTBE*		0	0	0	0	NA	NA	NA

StreamState Version 3.0

Flow Statistics Ungaged Site Report

Date: Tues Feb 16, 2016 4:41:11 PM GMT-5

Study Area: Pennsylvania

NAD 1983 Latitude: 39.7449 (39 44 42) NAD 1983 Longitude: -76.0189 (-76 01 08)

Drainage Area: 0.0369 mi2

2001 NLCD Impervious: 11.0 percent

	Low Flow Basin Characteristics		
100% Low Flow Region 1 (0.0369 mi2)			
Parameter	Value	Regression Equa	ation Valid Range
Parameter	value	Min	Max
Drainage Area (square miles)	0.0369 (below min value 4.78)	4.78	1150
Mean Basin Slope degrees (degrees)	2.1	1.7	6.4
Depth to Rock (feet)	5.1	4.13	5.21
Percent Urban (percent)	6.0	0	89

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

Mean/Base-flow Basin Characteristics												
100% Statewide Mean and Base Flow (0.0369 mi2)												
Parameter Value Regression Equation Valid Range												
raiailletei	Value	Min	Max									
Drainage Area (square miles)	0.0369 (below min value 2.26)	2.26	1720									
Mean Basin Elevation (feet)	531.8	130	2700									
Mean Annual Precipitation (inches)	45.0	33.1	50.4									
Percent Carbonate (percent)	0.0	0	99									
Percent Forest (percent)	25.0	5.1	100									
Percent Urban (percent)	6.0	0	89									

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

	Peak Flow Basin Characteristics											
100% Peak Flow Region 2 (0.0369 mi2)												
Parameter Value Regression Equation Valid Range												
Parameter	Value	Min	Max									
Drainage Area (square miles)	0.0369 (below min value 2.02)	2.02	1150									
Mean Basin Elevation (feet)	531.8	113	901									
Percent Carbonate (percent)	0.0	0	67									
Percent Urban (percent)	6.0	0	94									
Percent Storage (percent)	0.0	0	3.6									

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

			Low FI	ow Statistics		
Statistic	Value	Unit	Dradiction Error (norcent)	Equivalent years of record	90-Percent Pro	ediction Interval
Statistic	Value	UIIIL	Prediction Error (percent)	Equivalent years of record	Min	Max
M7D2Y	0.00391	ft3/s				
M30D2Y	0.00604	ft3/s				
M7D10Y	0.00116	ft3/s				
M30D10Y	0.00195	ft3/s				
M90D10Y	0.00464	ft3/s				

http://pubs.usgs.gov/sir/2006/5130/ (http://pubs.usgs.gov/sir/2006/5130/)
Stuckey_M.H._ 2006_Low-flow_ base-flow_ and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130_ 84 p.

			Mean/Bas	se-flow Statistics		
Statistic	Value	Unit	Prediction Error (percent)	Equivalent years of record	90-Percent Pre	ediction Interval
Statistic	value	Oilit	Prediction Error (percent)	Equivalent years of record	Min	Max
QA	0.0486	ft3/s				
QAH	0.0083	ft3/s				
BF10YR	0.0167	ft3/s				
BF25YR	0.0144	ft3/s				
BF50YR	0.0132	ft3/s				

http://pubs.usgs.gov/sir/2006/5130/ (http://pubs.usgs.gov/sir/2006/5130/)

Stuckey_M.H._ 2006_Low-flow_base-flow_and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130_ 84 p.

Peak Flow Statistics										
Statistic	Value		Dradiction Error (norcent)	Equivalent years of record	90-Percent Prediction Interval					
Statistic	Value	Unit	Prediction Error (percent)	Equivalent years of record	Min	Max				
PK2	16.8	ft3/s								
PK5	37.2	ft3/s								
PK10	56.1	ft3/s								
PK50	113	ft3/s								
PK100	145	ft3/s								
PK500	242	ft3/s								

http://pubs.usgs.gov/sir/2008/5102/ (http://pubs.usgs.gov/sir/2008/5102/)

Roland_M.A._ and Stuckey_M.H._ 2008_ Regression equations for estimating flood flows at selected recurrence intervals for ungaged streams in Pennsylvania: U.S. Geological Survey Scientific Investigations Report 2008-5102_57p.

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URL: http://streamstatsags.cr.usgs.gov/v3_beta/FTreport.htm

Page Contact Information: StreamStats Help

Page Last Modified: 11/24/2015 14:32:58 (Web1)

Streamstats Status News



StreamState Version 3.0

Flow Statistics Ungaged Site Report

Date: Tues Feb 16, 2016 4:28:03 PM GMT-5

Study Area: Pennsylvania

NAD 1983 Latitude: 39.7315 (39 43 53) NAD 1983 Longitude: -76.0035 (-76 00 13)

Drainage Area: 0.98 mi2

2001 NLCD Impervious: 4.0 percent

Low Flow Basin Characteristics							
100% Low Flow Region 1 (0.98 mi2)							
Regression Equation Valid Ran							
Parameter	Value	Min	Max				
Drainage Area (square miles)	0.98 (below min value 4.78)	4.78	1150				
Mean Basin Slope degrees (degrees)	2.0	1.7	6.4				
Depth to Rock (feet)	3.7 (below min value 4.13)	4.13	5.21				
Percent Urban (percent)	3.0	0	89				

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

Mean/Base-flow Basin Characteristics								
100% Statewide Mean and Base Flow (0.98 mi2)								
Parameter Value Regression Equation Valid Range								
raiailletei	Value	Min	Max					
Drainage Area (square miles)	0.98 (below min value 2.26)	2.26	1720					
Mean Basin Elevation (feet)	474.2	130	2700					
Mean Annual Precipitation (inches)	45.0	33.1	50.4					
Percent Carbonate (percent)	0.0	0	99					
Percent Forest (percent)	38.0	5.1	100					
Percent Urban (percent)	3.0	0	89					

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

Peak Flow Basin Characteristics								
100% Peak Flow Region 2 (0.98 mi2)								
Parameter Value Regression Equation Valid Range								
Parameter	value	Min	Max					
Drainage Area (square miles)	0.98 (below min value 2.02)	2.02	1150					
Mean Basin Elevation (feet)	474.2	113	901					
Percent Carbonate (percent)	0.0	0	67					
Percent Urban (percent)	3.0	0	94					
Percent Storage (percent)	0.0	0	3.6					

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

Low Flow Statistics									
Statistic	Value	Unit	Prodiction Error (percent)	90-Perc	90-Percent Pro	nt Prediction Interval			
Statistic	Value	Unit	Prediction Error (percent)	Equivalent years of record	Min	Max			
M7D2Y	0.024	ft3/s							
M30D2Y	0.0441	ft3/s							
M7D10Y	0.00592	ft3/s							
M30D10Y	0.012	ft3/s							
M90D10Y	0.0347	ft3/s							

http://pubs.usgs.gov/sir/2006/5130/ (http://pubs.usgs.gov/sir/2006/5130/)
Stuckey_M.H._ 2006_Low-flow_ base-flow_ and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130_ 84 p.

	Mean/Base-flow Statistics									
Statistic	Value	Unit	Equivalent years of record	90-Percent Pro	ediction Interval					
Statistic	Value	Unit	Prediction Error (percent)	Equivalent years of record	Min	Max				
QA	1.34	ft3/s								
QAH	0.29	ft3/s								
BF10YR	0.5	ft3/s								
BF25YR	0.44	ft3/s								
BF50YR	0.4	ft3/s								

http://pubs.usgs.gov/sir/2006/5130/ (http://pubs.usgs.gov/sir/2006/5130/)

Stuckey_M.H._ 2006_Low-flow_base-flow_and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130_ 84 p.

Peak Flow Statistics										
Statistic	Value	Unit	Dradiction Favor (norgant) Faviralent vacus of vaccad	90-Percent Prediction Interval						
Statistic	Value	Oilit	Prediction Error (percent)	Equivalent years of record	Min	Max				
PK2	162	ft3/s								
PK5	323	ft3/s								
PK10	465	ft3/s								
PK50	876	ft3/s								
PK100	1100	ft3/s								
PK500	1760	ft3/s								

Streamstats Status

News

http://pubs.usgs.gov/sir/2008/5102/ (http://pubs.usgs.gov/sir/2008/5102/)

Roland_M.A._ and Stuckey_M.H._ 2008_ Regression equations for estimating flood flows at selected recurrence intervals for ungaged streams in Pennsylvania: U.S. Geological Survey Scientific Investigations Report 2008-5102_57p.

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URL: http://streamstatsags.cr.usgs.gov/v3_beta/FTreport.htm

Page Contact Information: StreamStats Help Page Last Modified: 11/24/2015 14:32:58 (Web1)

APPENDIX Q PaGWIS Well Data

PA DCNR - Records Page 1 of 2



PA STATE AGENCIES

ONLINE SERVICES

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Tom Wolf, Governor Cindy Adams Dunn, Acting Secretary

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PaGWIS Records

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Geologic Hazards

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Radial Search

This retrieval approximates a radial search around a fixed location. the results will include wells in the "corners" of this figure.

Enter the coordinates of the center in decimal-degree format and the radius of the search in miles. All fields must be filled in to perform the search. The longitude must be a negative number.

○ Multiple Criteria ○ Polygon Search ● Radial Search

-76.019284 Longitude: Latitude: 39.744938 Radius in Miles: 0.25

Preview List

Create List

Clear Selections

"Preview List" creates a list which contains links to individual well information. You can choose to create a comma separated list from the preview. "Create List" creates a comma separated list without viewing the selection first. If you choose to open the file it may open in Excel if you have Microsoft Office installed.

Total Records Returned: 13 Records Click on the column headers to sort the Search Results.

PA Well ID	<u>Driller</u>	<u>Driller Ref</u>	Date Drilled	Owner	County	<u>Municipality</u>	Image
<u>479728</u>	BROWN BROS DRILLING INC	200890	11/3/2008	UNION FIRE COMPANY	CHESTER	WEST NOTTINGHAM TWP.	
114278	K.L. MADRON WELL DRILLING, LLC		3/1/1982	CHEN K	CHESTER	WEST NOTTINGHAM TWP.	
114285	R WALTER SLAUCH & SONS		2/8/1979	PORTER W	CHESTER	WEST NOTTINGHAM TWP.	
114284	R WALTER SLAUCH & SONS		9/1/1978	NOTTINGHAM CANNING	CHESTER	WEST NOTTINGHAM TWP.	
114355	BROWN BROS DRILLING INC		1/1/1971	SCARFO DOMONIC	CHESTER	WEST NOTTINGHAM TWP.	
8738	R WALTER SLAUCH & SONS		2/7/1968	HERR'S POTATO CHIPS	CHESTER	WEST NOTTINGHAM TWP.	
114347	R WALTER SLAUCH & SONS		1/1/1968	HERR POTATO INC	CHESTER	WEST NOTTINGHAM TWP.	
8748	R WALTER SLAUCH & SONS		11/30/1967	HERR'S POTATO CHIPS	CHESTER	WEST NOTTINGHAM TWP.	
<u>8746</u>	R WALTER SLAUCH & SONS		10/30/1967	HERR'S POTATO CHIPS	CHESTER	WEST NOTTINGHAM TWP.	
114348	R WALTER SLAUCH & SONS		1/1/1967	HERR POTATO INC	CHESTER	WEST NOTTINGHAM TWP.	
114349	R WALTER SLAUCH & SONS		1/1/1967	HERR POTATO INC	CHESTER	WEST NOTTINGHAM TWP.	
<u>8736</u>	R WALTER SLAUCH & SONS		7/28/1966	BOULDEN, J A	CHESTER	WEST NOTTINGHAM TWP.	
114350	R WALTER SLAUCH & SONS		1/1/1966	BOULDEN JOHN	CHESTER	WEST NOTTINGHAM TWP.	

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DEPARTMENT OF CONSERVATION & NATURAL RESOURCES BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY WATER WELL LICENSING/WATER WELL INVENTORY SECTION

3240 Schoolhouse Rd Middletown, PA 17057 717-702-2017

WATER WELL DETAILS

Well Driller: R WALTER SLAUCH & SONS

PA Well ID: 8738

Driller License: 0176

Driller Well ID:

Type of Activity:

Local Permit #:

Original Well By: UNKNOWN

Date Drilled: 2/7/1968

Drilling Method: CABLE TOOL

Owner: HERR'S POTATO CHIPS

Address of Well:

Zipcode:

County: CHESTER

Municipality: WEST NOTTINGHAM TWP.

Coordinate Method:

Quadrangle: RISING SUN

Latitude: 39.74583

Longitude: -76.01944

Well Depth (ft): **246**

Well Finish: **OPEN HOLE**

Depth to Bedrock (ft):

Did Not Encounter Bedrock:

Well Yield (gpm): 50

Yield Measure Method:

Static Water Level: 0

Water level after yield test: 60

(ft below land surface)

(ft below land surface)

Length of Yield Test: 8

Saltwater Zone (ft):

(minutes)

Use of Well: WITHDRAWAL

Use of Water: INDUSTRIAL

DRILLER'S LOG

UNIT TOP UNIT BOTTOM DESCRIPTION OF UNITS PENETRATED

BOREHOLE

CASING

Casing 1:

Top: **0**

Bottom:

70

Diameter: 6

Material: UNKNOWN

	-					~
Seal(Grout)	1:					
Top:	Bottom:		Type:		A A A A A A A A A A A A A A A A A A A	
SCREEN/SLO	OT					
WELL LINE	K					
PACKER						
WATER BEA	ARING ZONE					
Zone 1:	Top:	220	Bottom:	Yield:		
Zone 2:	Top:	246	Bottom:	Yield:		
					 	. нашистия

DEPARTMENT OF CONSERVATION & NATURAL RESOURCES BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY WATER WELL LICENSING/WATER WELL INVENTORY SECTION 3240 Schoolhouse Rd

3240 Schoolhouse Rd Middletown, PA 17057 717-702-2017

WATER WELL DETAILS

Well Driller: R WALTER SLAUCH & SONS

PA Well ID: 114347

Driller License: 0176

Driller Well ID:

Type of Activity: New Well

Local Permit #:

Original Well By: UNKNOWN

Date Drilled: 1/1/1968

Drilling Method:

Owner: **HERR POTATO INC**

Address of Well:

Zipcode:

County: CHESTER

Municipality: WEST NOTTINGHAM TWP.

Coordinate Method:

Quadrangle: RISING SUN

Latitude: 39.74444

Longitude: -76.02

Well Depth (*ft*): **246**

Well Finish:

Depth to Bedrock (ft): 60

Did Not Encounter Bedrock:

Well Yield (gpm): 50

Yield Measure Method:

Static Water Level:

Water level after yield test:

(ft below land surface)

(ft below land surface)

Length of Yield Test: 8

Saltwater Zone (ft):

(minutes)

Use of Well: WITHDRAWAL

Use of Water: INDUSTRIAL

DRILLER'S LOG

UNIT TOP UNIT BOTTOM DESCRIPTION OF UNITS PENETRATED

BOREHOLE

CASING

Casing 1:

Top:

0

Bottom:

70

Diameter:

6

Material:

Seal(Grout) 1:							
Тор:	Bot	tom:		Гуре:			
SCREEN/SLO	Γ				 		
WELL LINER							
D A CUZED						Marine 1994 (1994)	
PACKER					0.00		
WATER BEAF	UNG ZONE		CONTROL STOLER TO MACROTTAL CONTROL OF THE STATE OF THE S	MOOTHINGS II LIAN L. A. L. BEARDARD J. L. L. L. L. L. L. L. L. L. L. L. L. L.	AND THE RESIDENCE OF THE PARTY	December 1980	
Zone 1:	Top:	10	Bottom:	Yield:			
Zone 2:	Top:	70	Bottom:	Yield:			
Zone 3:	Top:	220	Bottom:	Yield:			

DEPARTMENT OF CONSERVATION & NATURAL RESOURCES BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY WATER WELL LICENSING/WATER WELL INVENTORY SECTION 3240 Schoolhouse Rd

Middletown, PA 17057 717-702-2017

WATER WELL DETAILS

Well Driller: R WALTER SLAUCH & SONS

PA Well ID: 8748

Driller License: 0176

Driller Well ID:

Type of Activity:

Local Permit #:

Original Well By: UNKNOWN

Date Drilled: 11/30/1967

Drilling Method: CABLE TOOL

Owner: HERR'S POTATO CHIPS

Address of Well:

Zipcode:

County: CHESTER

Municipality: WEST NOTTINGHAM TWP.

Coordinate Method:

Quadrangle: RISING SUN

Latitude: 39.74806

Longitude: -76.01861

Well Depth (*ft*): **225**

Well Finish: **OPEN HOLE**

Depth to Bedrock (ft):

Did Not Encounter Bedrock:

Well Yield (*gpm*): 10

Yield Measure Method:

REPORTED, METHOD NOT

KNOWN

Static Water Level: 30

Water level after yield test:

(ft below land surface)

(ft below land surface)

Length of Yield Test:

Saltwater Zone (ft):

(minutes)

Use of Well: WITHDRAWAL

Use of Water: INDUSTRIAL

DRILLER'S LOG

UNIT TOP UNIT BOTTOM DESCRIPTION OF UNITS PENETRATED

BOREHOLE

CASING

Casing 1:

Top: 0

Bottom:

119

Diameter: 6

Material: UNKNOWN

Seal(Grout) 1	l :				
Top:	Bottom:		Type:		
	>TD				
SCREEN/SLO	<i>)</i>				
WELL LINEI	R				·
PACKER					
WATER BEA	RING ZONE	;			
Zone 1:	Тор:	200	Bottom:	Yield:	
Zone 2:	Top:	225	Bottom:	Yield:	

DEPARTMENT OF CONSERVATION & NATURAL RESOURCES BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY WATER WELL LICENSING/WATER WELL INVENTORY SECTION 3240 Schoolhouse Rd Middletown, PA 17057

717-702-2017

WATER WELL DETAILS

Well Driller: R WALTER SLAUCH & SONS

PA Well ID: 8746

Driller License: 0176

Driller Well ID:

Type of Activity:

Local Permit #:

Original Well By: UNKNOWN

Date Drilled: 10/30/1967

Drilling Method: CABLE TOOL

Owner: HERR'S POTATO CHIPS

Address of Well:

Zipcode:

County: CHESTER

Municipality: WEST NOTTINGHAM TWP.

Coordinate Method:

Quadrangle: RISING SUN

Latitude: 39.74778

Longitude: -76.01917

Well Depth (*ft*): **283**

Well Finish: **OPEN HOLE**

Depth to Bedrock (ft):

Did Not Encounter Bedrock:

Well Yield (*gpm*): 8

Yield Measure Method:

Static Water Level: -1

Water level after yield test: 199

(ft below land surface)

(ft below land surface)

Length of Yield Test: 4

Saltwater Zone (ft):

(minutes)

Use of Water: INDUSTRIAL Use of Well: WITHDRAWAL

DRILLER'S LOG

UNIT TOP UNIT BOTTOM DESCRIPTION OF UNITS PENETRATED

BOREHOLE

CASING

Casing 1:

0 Top:

Bottom:

67

Diameter: 6

Material: UNKNOWN

						~
Seal(Grout)	1:					
Тор:	Bottom:		Type:		 untural/www.mee.	
SCREEN/SL	ОТ					
WELL LINE	Ž R					
PACKER						
WATER BEA	ARING ZONE	1	A A A MARKA MADESCANING COMMON DESTRUCTION OF COMMON STREET, COMMO			
Zone 1:	Top:	250	Bottom:	Yield:		
Zone 2:	Top:	283	Bottom:	Yield:		

DEPARTMENT OF CONSERVATION & NATURAL RESOURCES BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY WATER WELL LICENSING/WATER WELL INVENTORY SECTION 3240 Schoolhouse Rd

3240 Schoolhouse Rd Middletown, PA 17057 717-702-2017

WATER WELL DETAILS

Well Driller: R WALTER SLAUCH & SONS

PA Well ID: 114348

Driller License: 0176

Driller Well ID:

Type of Activity: New Well

Local Permit #:

Original Well By: UNKNOWN

Date Drilled: 1/1/1967

Drilling Method:

Owner: HERR POTATO INC

Address of Well:

Zipcode:

County: CHESTER

Municipality: WEST NOTTINGHAM TWP.

Coordinate Method:

Quadrangle: RISING SUN

Latitude: 39.74556

Longitude: -76.02

Well Depth (*ft*): **283**

Well Finish:

Depth to Bedrock (ft): 60

Did Not Encounter Bedrock:

Well Yield (gpm): 8

Yield Measure Method:

Static Water Level: 1

Water level after yield test:

(ft below land surface)

(ft below land surface)

Length of Yield Test: 4

Saltwater Zone (ft):

(minutes)

Use of Well: WITHDRAWAL

Use of Water: INDUSTRIAL

DRILLER'S LOG

<u>UNIT TOP</u> <u>UNIT BOTTOM</u> <u>DESCRIPTION OF UNITS PENETRATED</u>

BOREHOLE

CASING

Casing 1:

Top:

0

Bottom:

67

Diameter:

•

Material:

						· .
Seal(Grout) 1:						
Тор:	Bot	tom:	7	Гуре:		
SCREEN/SLOT	Γ				 	
WELL LINER					 	
		•				
PACKER						
WATER BEAR	ING ZONE	· · · · · · · · · · · · · · · · · · ·				
Zone 1:	Top:	60	Bottom:	Yield:		
Zone 2:	Top:	250	Bottom:	Yield:		

DEPARTMENT OF CONSERVATION & NATURAL RESOURCES BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY WATER WELL LICENSING/WATER WELL INVENTORY SECTION 3240 Schoolhouse Rd

3240 Schoolnouse Rd Middletown, PA 17057 717-702-2017

WATER WELL DETAILS

Well Driller: R WALTER SLAUCH & SONS

PA Well ID: 114349

Driller License: 0176

Driller Well ID:

Type of Activity: New Well

Local Permit #:

Original Well By: UNKNOWN

Date Drilled: 1/1/1967

Drilling Method:

Owner: **HERR POTATO INC**

Address of Well:

Zipcode:

County: CHESTER

Municipality: WEST NOTTINGHAM TWP.

Coordinate Method:

Quadrangle: RISING SUN

Latitude: 39.74778

Longitude: -76.01861

Well Depth (*ft*): **225**

Well Finish:

Depth to Bedrock (ft): 115

Did Not Encounter Bedrock:

Well Yield (gpm): 10

Yield Measure Method:

Static Water Level: 30

Water level after yield test:

(ft below land surface)

(ft below land surface)

Length of Yield Test: 5

Saltwater Zone (ft):

(minutes)

Use of Well: WITHDRAWAL

Use of Water: INDUSTRIAL

DRILLER'S LOG

<u>UNIT TOP</u> <u>UNIT BOTTOM</u> <u>DESCRIPTION OF UNITS PENETRATED</u>

BOREHOLE

CASING

Casing 1:

Top:

0

Bottom:

119

Diameter:

ŧ

Material:

Seal(Grout) 1:	•					-
Тор:	Bott	om:		Туре:		
SCREEN/SLO	Т				E TRANSMINISTERACIONAL INCLUMENTA INCLUMENTA INCLUMENTA INCLUMENTA INCLUMENTA INCLUMENTA INCLUMENTA INCLUMENTA	
WELL LINER						
PACKER						
WATER BEAF	RING ZONE	, , , , , , , , , , , , , , , , , , ,				· ···
Zone 1:	Тор:	70	Bottom:	Yield:		
Zone 2:	Top:	200	Bottom:	Yield:		Ì

APPENDIX R Ecological Risk Assessment

Phone: (717) 394-3721



3020 Columbia Avenue, Lancaster, PA 17603
E-mail: rettew@rettew.com ● Web site: rettew.com

MEMORANDUM

TO: Herr Foods, Inc.

FROM: Thomas R. Eby, RETTEW Associates, Inc.

DATE: June 10, 2016

PROJECT NAME: Herr Foods, Inc. - Ecological Risk Assessment PROJECT NO. 101722001

SUBJECT: Ecological Risk Assessment

INTRODUCTION

This Ecological Risk Assessment was prepared to evaluate the potential effects of a petroleum release on ecological receptors at the Herr Foods, Inc. (Herr's) manufacturing facility, located at 273 Old Baltimore Pike in West Nottingham Township, Chester County, Pennsylvania. The 13.8-acre property is owned and operated by Herr's and appears on the Rising Sun, MD-PA United States Geological Survey (USGS) 7.5-minute quadrangle (Attachment A, Figure 1). The property has been used historically for snack food manufacturing since the 1950s.

The petroleum release occurred at the facility truck garage, located on the southern portion of the property. The truck garage was constructed in 1978 and remains in use for the maintenance and fueling of Herr's fleet vehicles. An underground storage tank (UST) system installed during construction in 1978 was used for the storage of diesel fuel and unleaded gasoline. During UST system closure in 1997, a subsurface release of diesel fuel and unleaded gasoline was discovered that impacted soil and groundwater at the property.

Site characterization was conducted by RETTEW during 2015 and 2016 to delineate the extent of soil and groundwater impacts resulting from the release. Site characterization findings indicated that groundwater discharges to surface water downgradient of the subject property on an adjacent, separate parcel owned by Herr's. Discharging groundwater supports a wetland, which forms the headwater to an unnamed tributary (UNT) to North East Creek. Benzene and MTBE have been detected in surface water and sediment in the northern portion of the wetland area. Benzene is classified as a compound of potential ecological concern (CPEC) by the Pennsylvania Department of Environmental Protection (PADEP).

Fate and transport analysis showed that surface water will continue to be impacted by dissolved benzene and MTBE in groundwater into the future as described in the Revised Site Characterization Report (SCR). Applicable surface water quality standards were developed for benzene and MTBE using the PADEP's PENTOXSD model. The maximum average MTBE concentration at steady state (47.9 μ g/L) is not expected to exceed applicable water quality criteria; however, the maximum average benzene concentration at steady state (421.2 μ g/L) is expected to exceed the calculated Cancer Risk Level (CRL) waste load allocation (WLA, or 185 μ g/L) for the UNT to North East Creek (185 μ g/L). Steady state discharge of benzene is expected to meet the calculated Acute Fish Criteria (AFC) WLA (2,915 μ g/L) and Chronic Fish Criteria (CFC) WLA (14,351 μ g/L) water quality criteria protective of fish and aquatic life that may live in the UNT to North East Creek.

Herr's proposes to remediate the release to meet the Site-Specific Standard for groundwater under Act 2. As a condition of remediation standard attainment, a site-specific ecological risk assessment was performed in accordance with the process outlined in the PADEP Act 2 Technical Guidance Manual (TGM) Section IV.H and the PADEP Statewide Ecological Screening Process to evaluate eco-exposure to groundwater and substances (benzene and MTBE) addressed by Herr's under the Act 2 Site-Specific standard.



Page 2 of 7 Herr Foods, Inc. June 10, 2016 RETTEW Job No. 101722001

INVESTIGATIVE METHODS

The evaluation included field identification of wetlands, habitat types and vegetation present in the area of plume discharge (MW-11) and surrounding areas within a 1,000-foot radius of MW-11, comprising the Ecological Risk Study Area. A search of the Pennsylvania Natural Diversity Inventory (PNDI) was also conducted to identify species and habitats of concern within the study area. The northern portion of the wetland area, where petroleum impacted surface water and sediment were identified, was compared to a reference area on the southern portion of the wetland area to assess whether "substantial impact" has resulted from the release. Substantial impact is defined by the TGM as a difference of greater than 20 percent in the density of species of concern, or greater than 50 percent difference in the diversity or the extent of habitats of concern. The evaluation also included a bog turtle habitat screening, since the property is located in Chester County where bog turtle populations and habitat are known to occur.

An on-site evaluation was conducted on May 11 and May 12, 2016 by qualified wetland biologists. The presence/absence wetland investigation followed the protocols described in the 2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0) and the 1987 Corps of Engineers Wetland Delineation Manual. This methodology is based on a three parameter approach involving indicators of hydrophytic vegetation, hydric soils, and wetland hydrology to identify and delineate wetlands.

INVESTIGATIVE FINDINGS

RETTEW's review of existing documentation and field investigation identified three wetland areas, one pond, and two watercourses among the various upland habitats within the Ecological Risk Study Area. Refer to **Figure 2** located in **Attachment A** for the location of these resources. **Attachment B** contains photo documentation of all the habitats identified in the Ecological Risk Study Area.

Wetlands

Three wetland areas and one pond were identified within the Ecological Risk Study Area. The two wetlands east of the railroad were palustrine emergent (PEM) wetlands, and the wetland west of the railroad was a complex consisting of PEM, palustrine scrub-shrub (PSS), and palustrine unconsolidated bottom (PUB) wetlands. The pond is a manmade farm pond located along the eastern edge of the study area. The PEM wetland located in the cattle pasture east of the railroad was located outside the riparian corridor to the northeast. This wetland's hydrology was primarily fed by groundwater discharging from the base of the railroad grade and the dominant vegetation consisted of *Eleocharis* sp. (spike-rush), *Juncus effusus* (lamp rush), and *Agrostis gigantea* (black bent). The PEM wetland located within the riparian corridor, east of the railroad, drained to the UNT to North East Creek to the south. This wetland's hydrology was primarily fed by groundwater and the dominant vegetation consisted of *Symplocarpus foetidus* (skunk cabbage), *Phalaris arundinacea* (reed canary grass), and *Impatiens capensis* (spotted touch-me-not).

The wetland complex located west of the railroad is where the PEM wetland of potential concern and reference PEM wetland is located, in addition to the PSS and PUB portions. As previously mentioned, the area of plume discharge containing MTBE and benzene is located in the northern, downgradient portion of this wetland complex and is referenced as the PEM wetland of potential concern for the purpose of this report. The reference portion of this wetland is the PEM portion directly south and upgradient of the PEM wetland of potential concern, and is not affected by the contaminated groundwater discharge. This wetland complex is primarily fed by groundwater



Page 3 of 7 Herr Foods, Inc. June 10, 2016 RETTEW Job No. 101722001

and the dominant vegetation consists of *S. foetidus, Impatiens capensis, Carex* sp. (sedge), and *Viburnum dentatum* (southern arrowwood). This wetland complex drains north to the UNT to North East Creek.

Streams

Two regulated stream channels were identified within the Ecological Risk Study Area. Both stream channels are UNT's to North East Creek. The main stem of this UNT starts west of the railroad grade in the center of the Ecological Risk Study Area and is fed by the wetland complex to the south and a culvert from the north, which conveys stormwater runoff. This stream channel flows southeast through the Ecological Risk Study Area. The second stream channel flows south along the eastern border of the study area, eventually flowing into the main stem UNT. These UNT's to North East Creek have an assigned Pennsylvania Code, Title 25, Chapter 93, Water Quality Standard designation of Trout Stocking, Migratory Fishes (TSF, MF). The Pennsylvania Fish and Boat Commission (PFBC) does not list these UNTs to North East Creek as streams known to support naturally reproducing trout.

The main stem of the UNT to North East Creek is a perennial stream with a moderate to low gradient. The water flow during the site investigation was approximately four feet wide and three inches deep. The streambed consisted primarily of gravel and silt with some cobbles and sand present. The streambanks were well vegetated with some areas showing signs of erosion.

Upland Habitats

A variety of upland habitats are located throughout the Ecological Risk Study Area including upland forest, a scrub-shrub/forested riparian corridor, cattle pasture, and maintained lawns. Herr's facilities, including paved parking lots and buildings, and a railroad right-of-way which bisects the site, are also located in the study area.

The upland forest is a mixed hardwood deciduous forest with dominant vegetative species including *Liriodendron tulipifera* (tuliptree), *Acer rubrum* (red maple), *Fagus grandifolia* (American beech), and *Quercus alba* (northern white oak) in the tree stratum, *Lindera benzoin* (northern spicebush) and *Viburnum* sp. in the shrub stratum, and *Dennstaedtia punctilobula* (hay-scented fern) in the herbaceous stratum.

The scrub-shrub/forested riparian corridor did contain some small fringe PEM wetlands along the banks of the UNT to North East Creek, but mainly consisted of upland habitat. A variety of vegetation species were present in this habitat type, and the dominant vegetative species included *Salix nigra* (black willow), *Juglans nigra* (black walnut), and *Quercus palustris* (pin oak) in the tree stratum, *Rosa multiflora* (rambler rose) and *Rubus allegheniensis* (common blackberry) in the shrub stratum, and *P. arundinacea* and *Alliaria petiolata* (garlic mustard) in the herbaceous stratum.

The cattle pastures are located in the southeastern portion of the study area and the dominant vegetative species included *Lolium perenne* (perennial rye grass) and *Festuca* sp. (fescue grass). The maintained lawn areas dominant vegetative species included *Poa pratensis* (Kentucky blue grass). The location of these habitats throughout the Ecological Risk Study Area are depicted on the aerial basemap (**Attachement A, Figure 2**).

PNDI Results

In order to identify species and habitats of potential concern within the Ecological Risk Study Area, a PNDI online search was completed by RETTEW on May 16, 2016 (Project Search ID: PNDI-603772). The PNDI Review Receipt indicated further review was necessary to determine potential impacts to a variety of special concern species



Page 4 of 7 Herr Foods, Inc. June 10, 2016 RETTEW Job No. 101722001

under the jurisdiction of the PA Department of Conservation and Natural Resources (DCNR) and an endangered species under the jurisdiction of the PA Fish and Boat Commission (PFBC). Shortly after the PNDI online search was completed, DCNR sent RETTEW a clearance letter with a conclusion of "no impact anticipated" regarding this project, dated May 16, 2016.

Additional information regarding the project was submitted to the PFBC for review and comment regarding the endangered species under their jurisdiction, which could potentially include fish, amphibians, and aquatic life. As previously stated, surface water is expected to meet the calculated AFC WLA and CFC WLA water quality criteria protective of fish and aquatic life. The PFBC response can be provided under separate cover upon receipt.

The PNDI results indicate that no species or habitats of concern were identified in the Ecological Risk Study Area. The PNDI receipt and agency clearance letters are provided in **Attachment C**.

Although no potential impacts were identified on the PNDI search reciept for species under the jurisdiction of the U.S. Fish and Wildlife Service (USFWS), Chester County is known to host the threatened bog turtle (Glyptemys muhlenbergii) and its habitat. As part of the Ecological Risk Assessment, Jeremy Hite, a RETTEW qualified bog turtle surveyor, investigated the Ecological Risk Study Area for bog turtle habitat on May 12, 2016. All three wetland areas within the study area contain the perameters necessary for bog turtle habitat (hydrology, mucky soils, and vegetation) and were considered suitable habitat for bog turtles. However, no bog tutles were found during the investigation.

Wetland of Potential Concern

The PEM wetland where the groundwater plume discharge containing MTBE and benzene is located is depicted on **Figure 2** in **Attachment A** as the "PEM Wetland of Potential Concern". This wetland did experience recent disturbance during the installation of groundwater monitoring wells. Disrupted sediment and vegetation from the drill rig were still present during the time of the investigation. It was noted that this ecological disturbance was not a result of the contaminated groundwater discharge into the wetland and was disregarded during the investigation.

The vegetation within the wetland of potential concern did not show signs of stress, discoloration, stunted growth, deformities, or death. The vegetation appeared to be in a similar growth stage when compared to the vegetation in the PEM reference wetland, directly south and upgradient of the contaminated groundwater discharge. The only non-native soil and sediment materials observed were a result of the recent drill rig disturbance. *Typha angustifolia* (narrow leaf cattail) is the only invasive species observed during the investigation. It was present in the wetland of potential concern and not the reference wetland; however, it did not appear to be crowding out the other vegetation at the time of the investigation. The aerial vegetative percent cover between the wetlands were very similar. However, the wetland of potential concern had a greater abundance of different species when compared to the reference wetland. Seven different species had a significant presence in the wetland of potential concern, compared to only four species observed in the reference wetland.

The ecological value of the wetland of potential concern is similar to the reference wetland. The only observed ecological benefit that the reference wetland contained over the wetland of potential concern was through its surrounding habitat. Since the reference wetland is surrounded by forest, the tree canopy provides additional cover and shade to the wetland resulting in cooler surface water and sediment temperatures, which could be a benefit for fauna activity. Since the wetland of potential concern is located closer to the Herr's facilities and directly adjacent to developed maintained lawn and parking areas, it is not surrounded by forest and doesn't receive this ecological benefit.



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CONTAMINANT FATE AND TRANSPORT

As described in the Revised SCR, surface water and sediment is affected by the diffuse flow of groundwater to offsite wetland areas. Because benzene and MTBE have relatively low partitioning coefficients, they tend to partition into water easily and have a low affinity to sorb to soil. This suggests that the benzene and MTBE detected in sediment are more indicative of impacts to pore water. In addition, the source area is covered by buildings (the truck garage) and impervious paving as described in the Revised SCR; therefore, the sediment impacts are not likely the result of source erosion. It appears that the primary ecological risk associated with the release is exposure to discharging groundwater at the surface water interface, and surface water.

Benzene does not undergo significant partitioning or accumulate in sediment, nor does it bioaccumulate in plants or animals¹. Benzene is known to biodegrade in the environment. Once in groundwater, MTBE resists degradation compared to other gasoline components like benzene. In surface water, MTBE is not expected to bioaccumulate in aquatic organisms². Because benzene and MTBE do not bioaccumulate, they are not known to have an adverse effect on the food chain or present a food-chain exposure hazard. A list of compounds that EPA Region 3 considers to be bioaccumulative is presented on Table 4-2 in the guidance document *Bioaccumulative Testing and Interpretation for the Purpose of Sediment Quality Assessment, Status and Needs*, EPA-823-R-00-001, February 2000. Benzene and MTBE are not listed as bioaccumulative in this document.

PRELIMINARY EXPOSURE PATHWAY ANALYSIS

Present and future exposure pathways to surface water and sediment were evaluated for ecological receptors. Currently, there are no proposed plans to modify or redevelop the Herr's property. Land use is not expected to change in the future; therefore, current ecological exposure pathways are anticipated to remain unchanged into the near furture.

The ecological exposure pathway is characterized by diffuse groundwater discharge at the surface water interface with associated loading of dissolved benzene and MTBE to surface water. Dissolved benzene and MTBE are migrating with groundwater flow from the source area (the area of the petroleum release) to the final exposure pathway (groundwater-surface water interface and surface water) and to the receptors (terrestrial and aquatic ecological receptors).

Surface water impacts resulting from groundwater discharge were evaluated in the Revised SCR using PENTOXSD. Steady state discharge of benzene is expected to meet the calculated AFC WLA (2,915 μ g/L) and CFC WLA (14,351 μ g/L) water quality criteria for fish and aquatic life in the UNT to North East Creek. The water quality standards calcuated for benzene and MTBE using PENTOXSD for aquatic life and aquatic habitat (AFC and CFC) are met, which are protective of fish. Because the AFC and CFC are met under steady state conditions, the exposure pathway for aquatic ecological receptors is acceptable.

The exposure pathway is complete for terrestrial ecological receptors. Terrestrial receptors are potentially exposed to the release via dermal contact, ingestion and root uptake. Ecotoxicity for terrestrial receptors is evaluated in the following section.

² Occurrence of the Gasoline Additive MTBE in Shallow Ground Water in Urban and Agricultural Areas, USGS Fact Sheet, Available online at http://sd.water.usgs.gov/nawqa/pubs/factsheet/fs114.95/fact.html, Accessed May 17, 2016.



¹ 2009, <u>Benzene TEACH Chemical Summary</u>, U.S. EPA Toxicity and Exposure Assessments for Children's Health, TEACH Database Archive Document.

Page 6 of 7 Herr Foods, Inc. June 10, 2016 RETTEW Job No. 101722001

PRELIMINARY ECOTOXICITY EVALUATION

As noted in the previous section, the AFC and CFC are met under steady state conditions for benzene and MTBE; therefore, the exposure pathway for aquatic ecological receptors is acceptable, and the ecological risk assessment for aquatic ecological receptors is satisfied. Terrestrial ecological receptors are the primary focus for further evaluation.

EPA Region 3 freshwater sediment screening ecotoxicological benchmarks were reviewed to assess ecological risk to terrestrial ecological receptors. Currently, EPA Region 3 does not have sediment screening benchmarks for benzene and MTBE. EPA Region 3 selected equilibrium partitioning values for contaminants with oil-water partitioning coefficients (K_{ow}) that fall into a specific range (2.0< log K_{ow} <6.0). Benzene and MTBE generally fall outside of this range with low log K_{ow} values of 2.13 and 1.20, respectively. Substances that have low partitioning coefficients generally prefer to remain in solution and have a low affinity to sorb to soil and sediment particles. As an alternative, the National Oceanic and Atmospheric Administration (NOAA) Screening Quick Reference Tables (SQuiRTs) sediment screening values were reviewed for organic substances in sediment and compared to detected benzene and MTBE concentrations in sediment as summarized in the following table.

Substance	Max. Detected Conc. in Sediment	Dutch Target Conc.	Dutch Intervention Conc.	EPA EcoTox Conc.
Benzene	38 μg/kg	10 μg/kg	1,000 μg/kg	57 μg/kg
MTBE	160 μg/kg	NA	100,000 μg/kg	NA

Notes:

- 1. Dutch Target and Intervention Values set forth in Ministry of Housing, Spatial Planning and the Environment (VROM), Lower House of Parliament, parliamentary proceedings 1988-1989, 21 137, No. 5.
- 2. EPA EcoUpdate EcoTox Thresholds.
- 3. NA = Not applicable.

The maximum detected benzene concentration in sediment is below the screening values for intervention and ecological toxicity, and is slightly above the target concentration (1/100 of the intervention value or risk limit). The maximum detected MTBE concentration in sediment is below the only applicable screening value. The EPA EcoTox Thresholds have been set at concentrations above which there is sufficient concern regarding adverse ecological effects to warrant further site investigation. As previously stated, benzene and MTBE detected in sediment are more indicative of impacts to pore water and are not the result of source erosion. Based on the above comparison, the ecological risk associated with the maximum detected concentrations of benzene and MTBE in sediment (i.e., pore water) is characterized as low. It is noted that the benzene plume has not reached steady state and that benzene concentrations in discharging groundwater (and sediment) are expected to increase; however, the source will be remediated to meet the most stringent surface water quality standard (CRL WLA), thereby protecting terrestrial ecological receptors.

CONCLUSIONS

The findings of the Ecological Risk Assessment indicate that there is no substantial ecological risk associated with the release. The findings are summarized as follows:

- No species of concern were identified.
- No evidence of stressed, discolored or deformed vegetation was observed.
- Benzene and MTBE are not known to bioaccumulate and are not known to have a adverse effect on the food chain or present a food-chain exposure hazard.



Page 7 of 7 Herr Foods, Inc. June 10, 2016 RETTEW Job No. 101722001

- The wetland of potential concern compared closely to the reference wetland with respect to the abundance and diversity of species present. No substantial ecological impacts were identified.
- The surface water quality standards presented in the Revised SCR are met and are protective of aquatic ecological receptors.
- Published sediment screening values indicate that the potential adverse effect of the release on terrestrial ecological receptors is low.
- No additional ecological risk assessment is warranted.

The results of the field investigation identified three wetland areas that contain suitable bog turtle habitat within the Ecological Risk Study Area. It is noted that bog turtles were not observed during the field investigation. Potential impacts of remediation on bog turtle habitat will be considered during the development of a Remedial Action Plan.

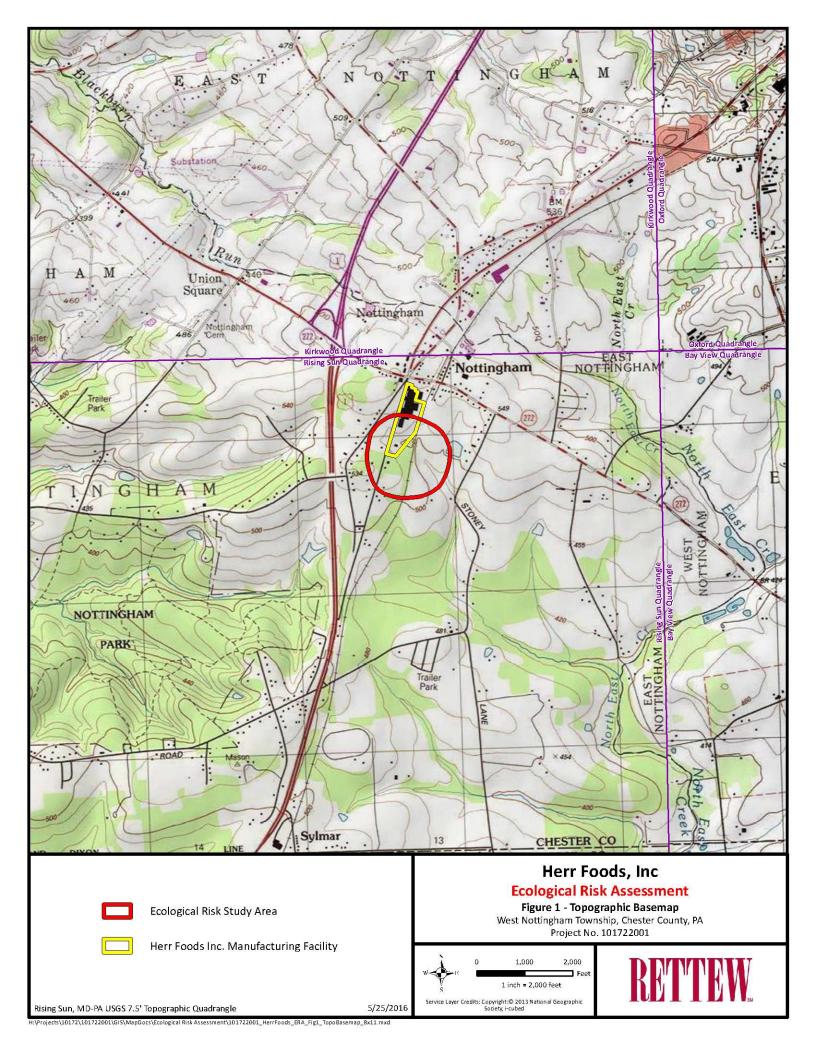
Prepared by: Thum R. Eley
Thomas R. Eby, Senior Environmental Scientist

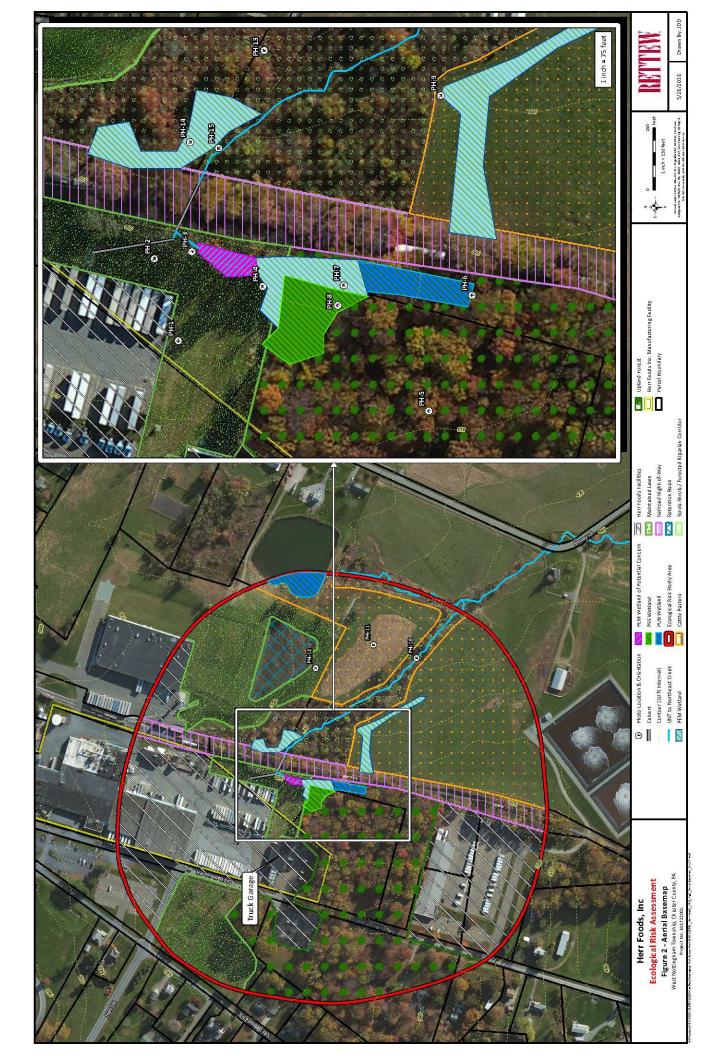
Reviewed by: 7/100001 9. Such
Thomas J. Stich, Senior Environmental Scientist

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ATTACHMENT A SITE MAPPING





ATTACHMENT B

SITE PHOTOGRAPHS

Client: Herr Foods, Inc.

Project Name: Ecological Risk

Assessment

Site Location: West Nottingham Township, Chester County, PA **Project Number:** 101722001

Photo 1

Date Taken: May 11, 2016

Photo Direction: West

Comments:

View of truck garage on the Herr Foods, Inc. manufacturing facility and source of the underground storage tank petroleum release.



Photo 2

Date Taken: May 11, 2016

Photo Direction: Southeast

Comments:

View of stream flowing out of the PEM wetland of potential concern and culvert under the railroad grade.



Client: Herr Foods, Inc.

Project Name: Ecological Risk

Assessment

Site Location: West Nottingham Township, Chester County, PA Project Number: 101722001

Photo 3

Date Taken: May 11, 2016

Photo Direction: South

Comments:
View of PEM wetland
of potential concern.
This is the area
where the
groundwater
discharges to surface
water and feeds the
PEM wetland.



Photo 4

Date Taken: May 11, 2016

Photo Direction: Northeast

Comments: Another view of the PEM wetland of potential concern.



Client: Herr Foods, Inc.

Project Name: Ecological Risk

Assessment

Site Location: West Nottingham Township, Chester County, PA **Project Number:** 101722001

Photo 5

Date Taken: May 11, 2016

Photo Direction: North

Comments: View of the upland forested habitat, south of the truck garage.



Photo 6

Date Taken: May 11, 2016

Photo Direction: North

Comments:
View of the PUB
wetland adjacent to
the railroad grade
and surrounded by
upland forest.



Client: Herr Foods, Inc.

Project Name: Ecological Risk Assessment

Site Location: West Nottingham Township, Chester County, PA Project Number: 101722001

Photo 7

Date Taken: May 11, 2016

Photo Direction: Northeast

Comments:

View of the reference PEM wetland that is upgradient and directly south of the PEM wetland of potential concern. This wetland does not receive the contaminated groundwater discharge.



Photo 8

Date Taken: May 11, 2016

Photo Direction: North

Comments:

View of the PSS wetland adjacent to the reference PEM wetland and surrounded by upland forest.



Client: Herr Foods, Inc.

Project Name: Ecological Risk Assessment

Site Location: West Nottingham Township, Chester County, PA Project Number: 101722001

Photo 9

Date Taken: May 11, 2016

Photo Direction: Southeast

Comments:

View of the PEM wetland within a cattle pasture, just east of the railroad and south of the UNT to Northeast Creek.



Photo 10

Date Taken: May 11, 2016

Photo Direction: Northwest

Comments:

Upstream view of the UNT to Northeast Creek and the scrubshrub riparian corridor in the southeastern portion of the study area.



Client: Herr Foods, Inc.

Project Name: Ecological Risk Assessment

Site Location: West Nottingham Township, Chester County, PA **Project Number:** 101722001

Photo 11

Date Taken: May 11, 2016

Photo Direction: Northwest

Comments:
View of the cattle
pasture north of the
UNT to Northeast
Creek.



Photo 12

Date Taken: May 11, 2016

Photo Direction: Northeast

Comments: View of the retention basin in the eastern portion of the study area.



Client: Herr Foods, Inc.

Project Name: Ecological Risk Assessment

Site Location: West Nottingham Township, Chester County, PA **Project Number:** 101722001

Photo 13

Date Taken: May 11, 2016

Photo Direction: Southwest

Comments:

View of the scrubshrub/forested riparian corridor east of the UNT to Northeast Creek.



Photo 14

Date Taken: May 11, 2016

Photo Direction: Southeast

Comments:

View of PEM wetland east of the railroad grade and northeast of the UNT to Northeast Creek.



Client: Herr Foods, Inc.

Project Name: Ecological Risk Assessment

Site Location: West Nottingham Township,

Project Number: 101722001

Photo 15

Date Taken: May 11, 2016

Photo Direction: Northwest

Comments:

Upstream view of the UNT to Northeast Creek, just downstream of the culvert and railroad grade.



ATTACHMENT C PNDI SEARCH RECIEPT AND AGENCY RESPONSES

1. PROJECT INFORMATION

Project Name: Herr Foods

Date of Review: 5/16/2016 10:06:43 AM

Project Category: Hazardous Waste Clean-up, Site Remediation, and Reclamation, Other

Project Area: 73.22 acres

County(s): Chester

Township/Municipality(s): WEST NOTTINGHAM

ZIP Code: 19362

Quadrangle Name(s): RISING SUN

Watersheds HUC 8: Chester-Sassafras; Lower Susquehanna

Watersheds HUC 12: North East Creek; Tweed Creek-Octoraro Creek

Decimal Degrees: **39.744832**, **-76.019582**

Degrees Minutes Seconds: 39° 44' 41.3955" N, 76° 1' 10.4943" W

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	Potential Impact	FURTHER REVIEW IS REQUIRED, See Agency Response
PA Fish and Boat Commission	Potential Impact	FURTHER REVIEW IS REQUIRED, See Agency Response
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

Note that regardless of PNDI search results, projects requiring a Chapter 105 DEP individual permit or GP 5, 6, 7, 8, 9 or 11 in certain counties (Adams, Berks, Bucks, Carbon, Chester, Cumberland, Delaware, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill and York) must comply with the bog turtle habitat screening requirements of the PASPGP.

Herr Foods

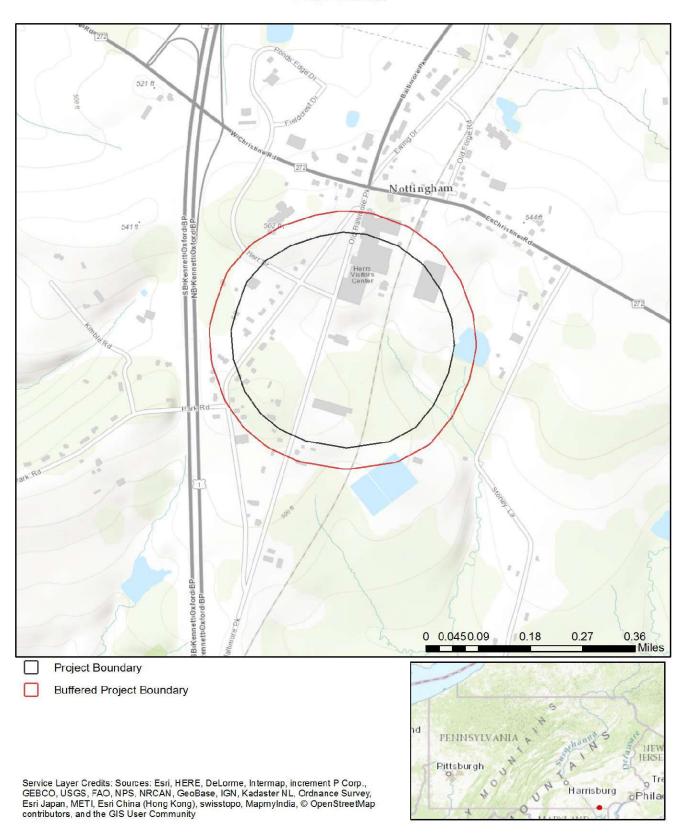


Project Boundary

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
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA,

Herr Foods



RESPONSE TO QUESTION(S) ASKED

Q1: Will the entire project occur within an existing building, parking lot, driveway, road, street, or maintained (periodically mowed) lawn?

Your answer is: Unknown

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 jurisdictional 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:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

DCNR Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below. After desktop review, if a botanical survey is required by DCNR, we recommend the DCNR Botanical Survey Protocols, available here: http://www.gis.dcnr.state.pa.us/hgis-er/PNDI_DCNR.aspx.)

Scientific Name	Common Name	Current Status	Proposed Status	Survey Window
Amblyscirtes vialis	Common Roadside Skipper	Special Concern Species*	Special Concern Species*	One brood from March-July; a partial second brood up to September in the south.
Apodrepanulatrix liberaria	a geometrid moth	Special Concern Species*	Special Concern Species*	
Artace cribraria	Dot-lined White Moth	Special Concern Species*	Special Concern Species*	
Atrytonopsis hianna	Dusted Skipper	Special Concern Species*	Special Concern Species*	adults in flight May to early June
Caripeta aretaria	Southern Pine Looper Moth	Special Concern Species*	Special Concern Species*	

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Scientific Name	Common Name	Current Status	Proposed Status	Survey Window
Catocala umbrosa		Special Concern Species*	Special Concern Species*	Catocala umbrosa flies as a single generation with moths on the wing from early April in the southern portions (peak flight in June) of its range through to August in the North (peak flight mid to late July).
Erastria coloraria	Broad-lined Erastria Moth	Special Concern Species*	Special Concern Species*	
Hemileuca maia	Barrens Buckmoth	Special Concern Species*	Special Concern Species*	One brood from September- December
Hypagyrtis esther	Esther Moth	Special Concern Species*	Special Concern Species*	_
Lagoa crispata	Black-waved Flannel Moth	Special Concern Species*	Special Concern Species*	May-October
Xestia elimata	Southern Variable Dart Moth	Special Concern Species*	Special Concern Species*	Fall?
Zale curema	A Zale Moth	Special Concern Species*	Special Concern Species*	
Zale submediana	A Zale Moth	Special Concern Species*	Special Concern Species*	May to August

PA Fish and Boat Commission RESPONSE:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

PFBC Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below.)

Scientific Name	Common Name	Current Status
Sensitive Species**		Endangered

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.

^{*} Special Concern Species or Resource - Plant or animal species classified as rare, tentatively undetermined or candidate as well as other taxa of conservation concern, significant natural communities, special concern populations (plants or animals) and unique geologic features.

^{**} Sensitive Species - Species identified by the jurisdictional agency as collectible, having economic value, or being susceptible to decline as a result of visitation.

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, upload* or email* the following information to the agency(s). Instructions for uploading project materials can be found here. This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies. Alternatively, applicants may email or mail their project materials (see AGENCY CONTACT INFORMATION).

*Note: U.S. Fish and Wildlife Service requires applicants to mail project materials to the USFWS PA field office (see AGENCY CONTACT INFORMATION). USFWS will not accept project materials submitted electronically (by upload or email).

Check-list of Minimum Materials to be submitted:

Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.

A map with the project boundary and/or a basic site plan(particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)

In addition to the materials listed above, USFWS REQUIRES the following

SIGNED copy of a Final Project Environmental Review Receipt

The inclusion of the following information may expedite the review process.

Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)

Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

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.

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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.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section 400 Market Street, PO Box 8552 Harrisburg, PA 17105-8552

Email: RA-HeritageReview@pa.gov

Fax:(717) 772-0271

Name: Thomas Eby

PA Fish and Boat Commission

Division of Environmental Services 450 Robinson Lane, Bellefonte, PA 16823 Email: RA-FBPACENOTIFY@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office Endangered Species Section 110 Radnor Rd; Suite 101 State College, PA 16801 NO Faxes Please

PA Game Commission

Bureau of Wildlife Habitat Management Division of Environmental Planning and Habitat Protection

2001 Elmerton Avenue, Harrisburg, PA 17110-9797

Email: RA-PGC PNDI@pa.gov

NO Faxes Please

7. PROJECT CONTACT INFORMATION

100 100 180 DESP
ding project location, project
nd complete. In addition, if the project type,
s that were asked during this online review
5/16/2016
date



BUREAU OF FORESTRY

May 16, 2016 **PNDI Number: PNDI-603772**

Thomas Eby Rettew, Inc.3020 Columbia Avenue
Lancaster, PA 37212

Email: teby@rettew.com (hard copy not to follow)

Re: Herr Foods

West Nottingham Township, Chester County, PA

Dear Mr. Eby,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Environmental Review Receipt Number PNDI-603772 for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources of concern under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

No Impact Anticipated

PNDI records indicate species or resources under DCNR's jurisdiction located in the vicinity of the project. However, based on the photos that you have submitted, the information you submitted concerning the nature of the project, the immediate location, and our detailed resource information, DCNR has determined that no impact is likely. No further coordination with our agency is needed for this project.

DCNR also recommends the following steps to help prevent the spread of invasive plant species and to encourage the use of native plants:

- Avoid using seed mixes that include invasive plant species if the project requires re-vegetating the area
 (http://www.ernstseed.com/seed-mixes/). Please also attempt to use weed-free straw or hay mixes when possible. A
 complete list of all Pennsylvania invasive plant species can be found here:
 <a href="http://www.dcnr.state.pa.us/cs/groups/public/documents/d
- The area of disturbance should be minimized to the fullest extent that would allow for this project; this will help to lessen the area of indirect disturbance to nearby natural areas.

This response represents the most up-to-date review of the PNDI data files and is valid for two (2) years only. If project plans change or more information on listed or proposed species becomes available, our determination may be reconsidered. Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). As a reminder, this finding applies to potential impacts under DCNR's jurisdiction only. Visit the PNHP website for directions on contacting the Commonwealth's other resource agencies for environmental review.

Should you have any questions or concerns, please contact Frederick Sechler, Jr., Ecological Information Specialist, by phone (717-705-2819) or via email (c-freechle@pa.gov).

Sincerely,

Greg Podniesinski, Section Chief

Natural Heritage Section, DCNR Bureau of Forestry

Bry Podnisinski

 conserve
 sustain
 enjoy

 P.O. Box 8552, Harrisburg, PA
 17015-8552 717-787-3444 (fax) 717-772-0271

ATTACHMENT E PROFESSIONAL QUALIFICATIONS

Jeremy T. Hite – Mr. Hite has a bachelor's degree in Wildlife and Fisheries Science from the Pennsylvania State University. He is currently involved in developing a Bog Turtle (*Glyptemys muhlenbergii*) Habitat Conservation Plan in Lancaster County, PA and New Castle County, DE. He is a qualified bog turtle surveyor for the state of PA and has six years of experience in searching and assessing different wetland environments for bog turtles as a technician for the Penn State University and as an environmental consultant. Through his employment as Research Technician at the Penn State Cooperative Wetlands Center he has been trained in and has helped development various protocols in assessing stream, wetlands, and riparian areas across the Mid-Atlantic Region. This research also included the sampling of streams and wetlands for macroinvertebrates and other herpetofauna. Some of these projects include Bog Turtle (*Gleptemys muhlenbergii*), Wood Turtle (*Gleptemys insculpta*), Eastern Massassauga (*Sistrurus catenatus catenatus*), Stream-sided salamanders (*Plethodon spp.*), benthic macroinvertebrates, and River Otter (*Lutra canadensis*) surveys. His responsibilities include leading field crews, field data collection, data management, filling out permits, meeting coordination, and landowner contacts.

Thomas R. Eby, Senior Environmental Scientist – Mr. Eby has a bachelor's degree in biology from York College of Pennsylvania and has over eight years of experience in field ecology and wetland biology. He has completed several vegetation and wetland certification courses at Rutgers University. He has received training to delineate wetlands with the procedures described in the 1987 *Corps of Engineers Wetland Delineation Manual* and the regional supplements. Since with RETTEW, Mr. Eby's primary role has been to manage phases within the Natural Sciences service area for various natural gas clients in both the Marcellus and Utica Shale regions. Some of his experience includes midstream pipeline projects, water sourcing projects, managing field crews, PADEP Ch. 105 compliance, USACE Nationwide Permit compliance, agency coordination, threatened and endangered species coordination/surveys, wetland delineation, and aquatic resources reporting.

Thomas J. Stich — Mr. Stich has a bachelor's degree in biology from Mansfield University and a master's degree in applied ecology and conservation biology from Frostburg State University. He has received training to delineate wetlands utilizing the *U.S. Army Corps of Engineers Wetland Delineation Manual* and the *2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual*: Northcentral and Northeast Region. Mr. Stich has over 15 years of experience delineating tidal and non-tidal wetlands in Pennsylvania, Maryland, and Virginia, and has certification as a forest stand delineator and forest conservation planner in Maryland.