Liberty Environmental, Inc.
480 New Holland Ave., Suite 8203, Lancaster, PA 17602 717-517-5000 Fax 717-517-5004 www.libertyenviro.com

February 29, 2016

Ms. Cherie Campbell
PA Department of Environmental Protection
909 Elmerton Avenue
Harrisburg, PA 17110

Re: Site Characterization Report
Diesel Dispenser Area
John F. Martin & Sons, Inc.
PADEP Facility ID No. 36-60491
West Cocalico Township, Lancaster County, Pennsylvania
Liberty Project No. 160003

Dear Ms. Campbell:

Liberty Environmental, Inc. (Liberty) is pleased to provide this summary report of findings for a site investigation recently completed at the above-reference property. A Site Location Map is provided as Figure 1 and a Site Diagram is provided as Figure 2. The site investigation entailed soil and groundwater sampling that was focused on an area of the property where motor fuels are dispensed; especially the area where IPEC discovered a hole in piping inside the diesel dispenser during a September 2015 facility operations inspection. A soil sample that was collected by IPEC at the time of their inspection did not reveal any impacts to site soils, thus there was uncertainty of whether or not leakage from the diesel dispenser had impacted this area of the John F. Martin & Sons property.

EXECUTIVE SUMMARY

Liberty's investigation entailed sampling soil at five locations and groundwater at three locations on the subject property. Samples were analyzed for Pennsylvania Department of Environmental Protection (DEP) target compounds for diesel fuel by EPA Method 8260B. Laboratory analyses of those samples identified diesel fuel impacts to both soil and groundwater. Certain diesel compounds exceed Statewide Health Standards established by DEP's Land Recycling and Environmental Remediation Standards Act of 1995 (Act 2). As such, this area of concern requires corrective actions pursuant to 25 PA Code Chapter 245, as expressed by DEP's letter dated October 22, 2015. Liberty is continuing to conduct investigations to complete requirements for site characterization.

One significant finding of this initial work is that no diesel fuel impacts were detected in the

water supply that is used in John F. Martin & Sons' onsite operations. The hydrogeologic conditions of the property will be assessed in further detail as part of future site investigations to evaluate the potential that the three supply wells are not at risk of future impacts by diesel fuel.

PROJECT BACKGROUND

John F. Martin & Sons contracted IPEC to perform a Facility Operations Inspection, which IPEC conducted on September 31, 2015. At that time, IPEC observed diesel fuel dripping from a connection under the pump. In response, they removed an unspecified quantity of soil from that area prior to collecting a soil sample for analysis. Laboratory analysis of that soil sample did not reveal any diesel fuel impacts. Accordingly, Liberty conducted the work described herein to resolve the uncertainty of whether diesel fuel had substantially impacted site soils or groundwater.

GEOLOGY, SOILS, & SITE SETTING

The site property is underlain by the Triassic-age Hammer Creek Formation, i.e. red sandstone and shale. Soils of the site are Lansdale loam, which tend to be well drained due to their parent materials being relatively coarser-grained sedimentary rocks.

The subject property occurs in a rural area of Lancaster County and is substantially surrounded by agricultural properties dedicated to livestock and crop production. Adjacent properties to the west, north, and east are cultivated fields, while the Pennsylvania Turnpike right-of-way resides directly to the south. Additional cultivated fields occur to the south of the Turnpike.

The subject property is situated on relatively low relief terrain and is situated near the base of a south-sloping topographic high that is north of the site, see Figure 1. Regionally, it is reasonable to conclude that basin drainage is to the south via Indian Run. Based on topographic conditions and an assumption that groundwater flow mirrors topography, groundwater would be expected to flow to the west-southwest, which is consistent with site observations as discussed later.

SOIL BORING INVESTIGATION

Liberty performed a soil boring investigation using a Geoprobe® direct-push apparatus supplied by Benner GeoSciences, Inc. of Sunbury, Pennsylvania. The Geoprobe® was used to mechanically advance six borings at the site, which were targeted at the area of concern.

As depicted in Figure 3, soils borings SB-1 through SB-6 were positioned to investigate soil quality around the dispenser island and to enable soils to be sampled for laboratory analysis of diesel fuel constituents. Boring SB-6 was located immediately at the base of the diesel dispenser, and the other five borings were positioned around the perimeter of that location of concern.

At each boring, a Liberty field scientist performed soil logging and field screening for volatile organic vapors in soil using a photoionization detector (PID). The borings were advanced with the purpose of observing the condition of soils in proximity to the dispenser.

Soils at the subject property consisted primarily of red to reddish-brown silt and sand, which appeared well drained. Saturated soil conditions were encountered at approximately 4 feet below

ground surface (bgs). Three of the six soil borings encountered sufficiently saturated soils, and monitoring wells were constructed therein as detailed later in this report.

Soils generally exhibited variable PID deflections above background levels (1.0 parts per million [ppm], with the highest responses measured at SB-1, SB-2, and SB-6 (1,666, 324.8, and 296.3 ppm, respectively). Petroleum-like odors were also observed in these three borings. No field indications of petroleum impact were noted in SB-3, SB-4, or SB-5. Soils from the interval just above saturation were sampled from boring SB-1 and SB-2. One soil sample was collected from the base of borings SB-3 and SB-4, since no evidence of impacts was observed in these borings. One sample was collected from the interval exhibiting the highest PID deflection from boring SB-6. Boring SB-5 indicated no evidence of impact and no samples were collected from this location. Samples were handled in accordance with standard protocols prior to being submitted for laboratory analysis of PADEP diesel fuel target compounds.

The samples were collected into laboratory-supplied, pre-cleaned bottleware, placed in a cooler with ice, and submitted under completed chain-of-custody to ALS Environmental (ALS) of Middletown, Pennsylvania for analysis. Copies of the analytical laboratory reports are included in Attachment 1 and summarized on Table 1.

SOIL ANALYTICAL RESULTS

Inspection of the data in Table 1 reveals that diesel fuel impacts have occurred to soils sampled from SB-1, SB-2, and SB-6, where PID deflections and field observations indicated petroleum impacts. 1,2,4-trimethylbenzene (TMB) and 1,3,5-TMB at SB-6 were detected in the soil sample from this location at concentrations of 39,800 micrograms per kilogram (µg/kg) and 12,200 µg/kg, respectively, which exceed the soil-to-groundwater, non-residential medium specific concentrations (MSCs) of 35,000 µg/kg and 9,300 µg/kg, respectively. 1,2,4-TMB and 1,3,5-TMB also exceed concentrations for protection of indoor air quality of 29,000 micrograms per cubic meter [$\mu g/m^3$] and 6,400 $\mu g/m^3$, respectively. Therefore, in consideration of diesel fuel constituents in soils, soils of the subject property will require additional characterization and possibly remedial actions to obtain an Act 2 release of liability for the documented conditions.

GROUNDWATER INVESTIGATION

As part of this investigation, Liberty constructed groundwater monitoring wells in three of the six soil borings to document groundwater quality and flow relative to the dispenser. The three wells were constructed with well screen and riser pipe configured to allow groundwater from the underlying aquifer to enter the wells for sampling at these three locations. The wells are designated as MW-1, MW-2, and MW-3 and were constructed in soil borings SB-1, SB-2, and SB-3, respectively. Their locations relative to the diesel dispenser are depicted on Figure 2. Well construction included a sand-pack around the screen and hydrated bentonite around the riser (above the sand) to seal against surface water infiltration. The wells were finished at the surface with protective drive-over manhole lids set in concrete pads.

Liberty developed and purged a minimum of three standing well volumes from each of the wells prior to collecting samples for laboratory analysis of diesel fuel target compounds. The samples were collected using dedicated, disposal polyethylene bailers and placed into laboratory-

supplied, pre-cleaned bottleware, placed in a cooler with ice, and submitted under completed chain-of-custody to ALS for analysis. A copy of the analytical laboratory report is included in Attachment 2 and summarized on Table 2.

A groundwater flow map was also prepared after surveying a reference elevation on the top of the riser pipe in each well. The depths to water were then measured relative to the reference elevations, and the groundwater flow map illustrated on Figure 4 was generated. Based on depths to water in the three wells, groundwater at the subject property, at the time of sampling, flows to the south-southeast. This direction of flow is generally consistent with surface topography, which suggests that flow is controlled by natural topographic gradients as a first order interpretation. The data do not indicate that any of the three groundwater supply wells of the subject property are influencing groundwater migration at the site, but this is a consideration that will be investigated in complete detail and reported in a future Site Characterization Report (SCR).

In addition to sampling the three newly installed monitoring wells, Liberty also collected a sample of groundwater from the water supply used by John F. Martin & Sons for daily potable and production water needs. Liberty understands that there are four water supply wells in use at the property. The water supply system sample was collected from a spigot located on the exterior of the water treatment building and analyzed for diesel fuel target compounds to assess the potential for impact to groundwater used at the property; no impacts were measured. It is currently unclear how pumping from water supply wells at the property influences groundwater flow and whether the water supply is at risk of impacts in the future. This is a condition that will require further evaluation through future investigations.

GROUNDWATER ANALYTICAL RESULTS

As shown in Table 2, each of the eight diesel fuel target compounds that were analyzed were detected in the water sample from MW-2, and six of those eight compounds are also present in water at MW-1; MW-2 being the most impacted of the groundwater samples tested from the area of concern. No diesel fuel target compounds were detected in the groundwater samples from MW-3 or the onsite water supply.

With regard to the compounds detected at well MW-1, benzene, naphthalene, 1,2,4-TMB, and 1,3,5-TMB were detected at concentrations above their respective non-residential Statewide Health Standards in groundwater. Benzene, ethylbenzene, naphthalene, 1,2,4-TMB, and 1,3,5-TMB were detected in MW-2 at concentrations above their respective cleanup standards.

CONCLUSIONS

Prior to conducting this investigation, there was uncertainty whether an observed hole in piping in the diesel dispenser had released a sufficient quantity of diesel fuel to cause a measurable impact to the subsurface. The uncertainty was attributed to the absence of measurable diesel fuel constituents in a soil sample collected from beneath the dispenser at the time IPEC observed the diesel fuel leakage inside of the diesel dispenser in September 2015.

The sampling by Liberty has confirmed that sufficient diesel fuel was released to impact the subsurface, and, in fact, concentrations of diesel fuel compounds in soils and groundwater

exceed generic cleanup standards for non-residential properties. The conditions that have been documented by Liberty's investigation will require full characterization (of soil and groundwater) as part of the corrective action process and those investigations are underway and will be reported to the DEP in a forthcoming SCR.

On behalf of John F. Martin & Sons, Inc., Liberty appreciates your consideration of this project summary information. Should you have any questions regarding this report, please feel free to call us at (717) 517-5000.

Sincerely,
Liberty Environmental, Inc.

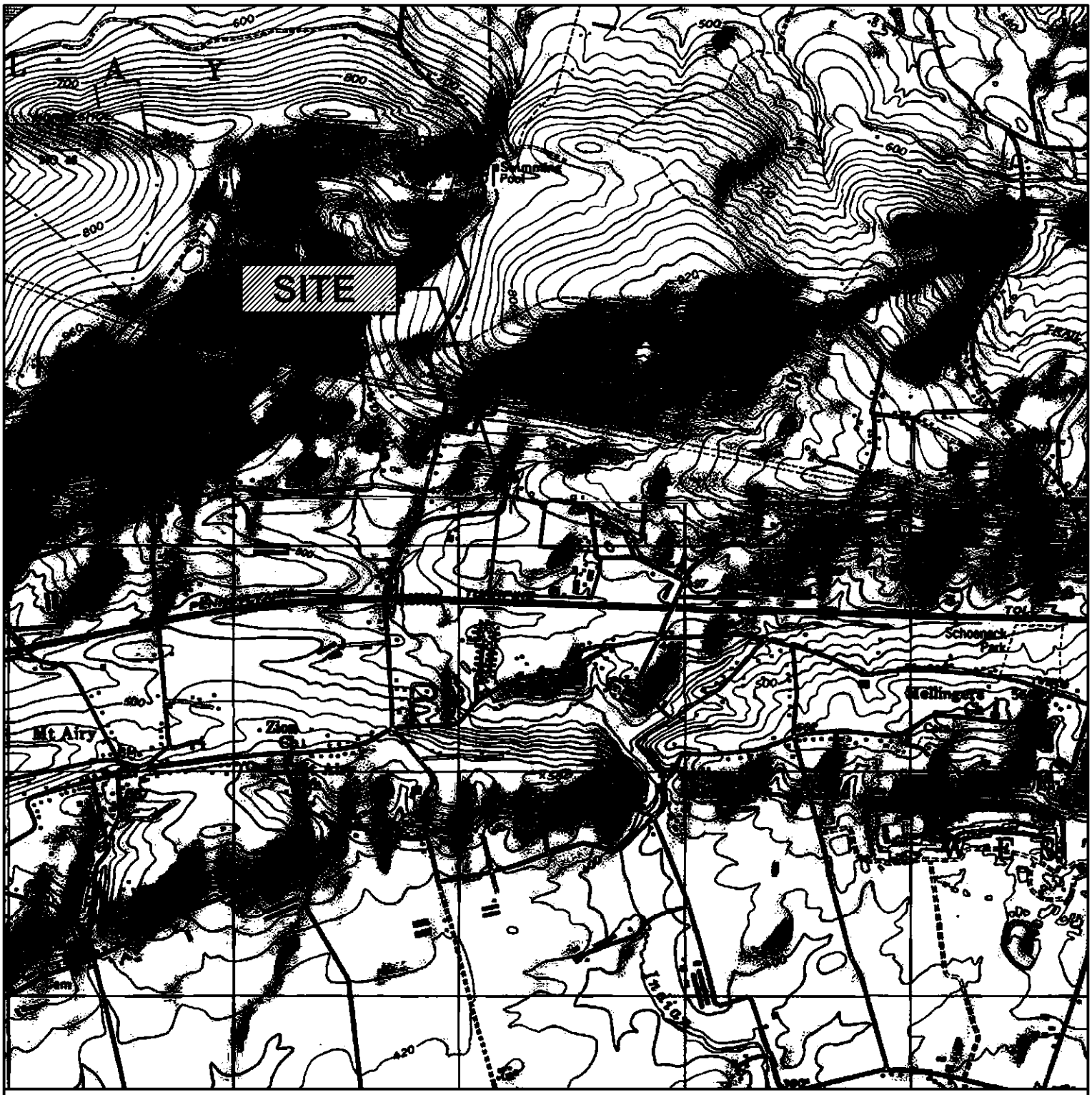
Katlyn Weik
Project Scientist

Paul Nachlas, P.G.
Professional Geologist

Attachments:

Figure 1: Site Location Map
Figure 2: Site Diagram
Figure 3: Soil Boring Locations
Figure 4: Groundwater Flow Map (January 29, 2016)
Table 1: Soil Sampling Analytical Results Summary
Table 2: Groundwater Data Summary
Attachment 1: Soil Laboratory Analytical Reports
Attachment 2: Groundwater Laboratory Analytical Reports

FIGURES



SOURCE: USA TOPO MAPS - COPYRIGHT © 2013 NATIONAL GEOGRAPHIC SOCIETY, I-CUBED. EPHRATA (1999) AND WOMELSDORF (1984), PENNSYLVANIA 7.5-MINUTE QUADRANGLES.

SCALE: 1 " = 2,000 '

0 1,000 2,000 4,000'

N

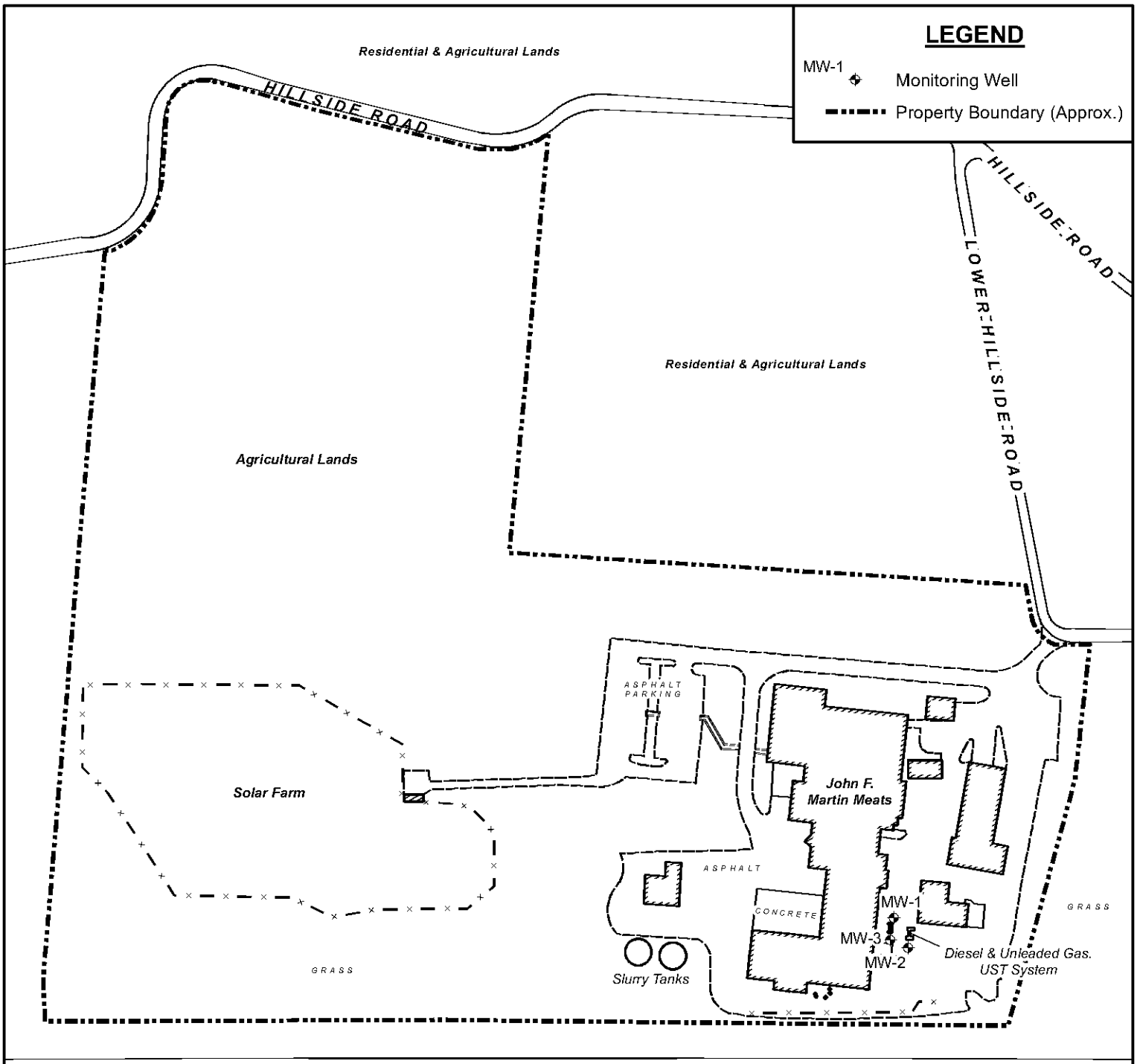
Liberty Environmental, Inc.

480 New Holland Ave. Suite 8203
Lancaster, PA 17602
Phone: 717-517-5000
Fax: 717-517-5004
www.libertyenviro.com

Figure 1 - Site Location Map

John F. Martin Meats
55 Lower Hillside Road
West Cocalico Township, Lancaster County, Pennsylvania

PROJECT NO.: 160003	REV: 0	PREPARED BY: EMC
DATE: FEBRUARY 4, 2016	SCALE: 1" = 2,000'	APPROVED BY: PEN



NOTE: THIS DRAWING INTENDED FOR ILLUSTRATIVE PURPOSES ONLY, AS PART OF A SITE CHARACTERIZATION. NOT TO BE USED AS A BASIS FOR ENGINEERING OR DESIGN.

SCALE: 1 " = 220 '

0 110 220 440'

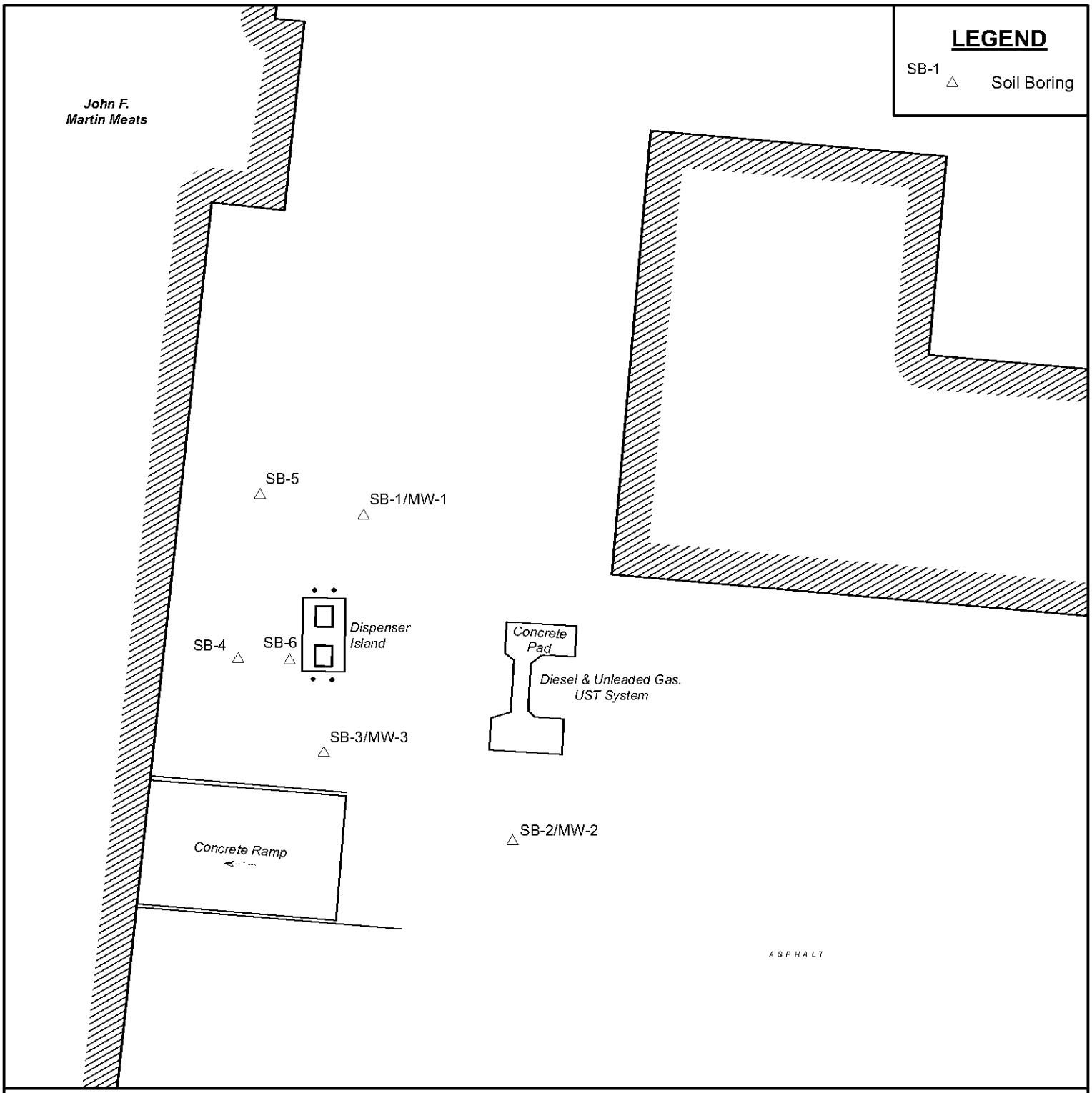
N

Figure 2 - Site Diagram

John F. Martin Meats
55 Lower Hillside Road
West Cocalico Township, Lancaster County, Pennsylvania

Liberty Environmental, Inc.
480 New Holland Ave. Suite 8203
Lancaster, PA 17602
Phone: 717-517-5000
Fax: 717-517-5004
www.libertyenviro.com

PROJECT NO.: 123456	REV: 0	PREPARED BY: EMC
DATE: FEBRUARY 4, 2016	SCALE: 1" = 220'	APPROVED BY: PEN



NOTE: THIS DRAWING INTENDED FOR ILLUSTRATIVE PURPOSES ONLY, AS PART OF A SITE CHARACTERIZATION. NOT TO BE USED AS A BASIS FOR ENGINEERING OR DESIGN.

SCALE: 1 " = 20 '

0 10 20 40'

N

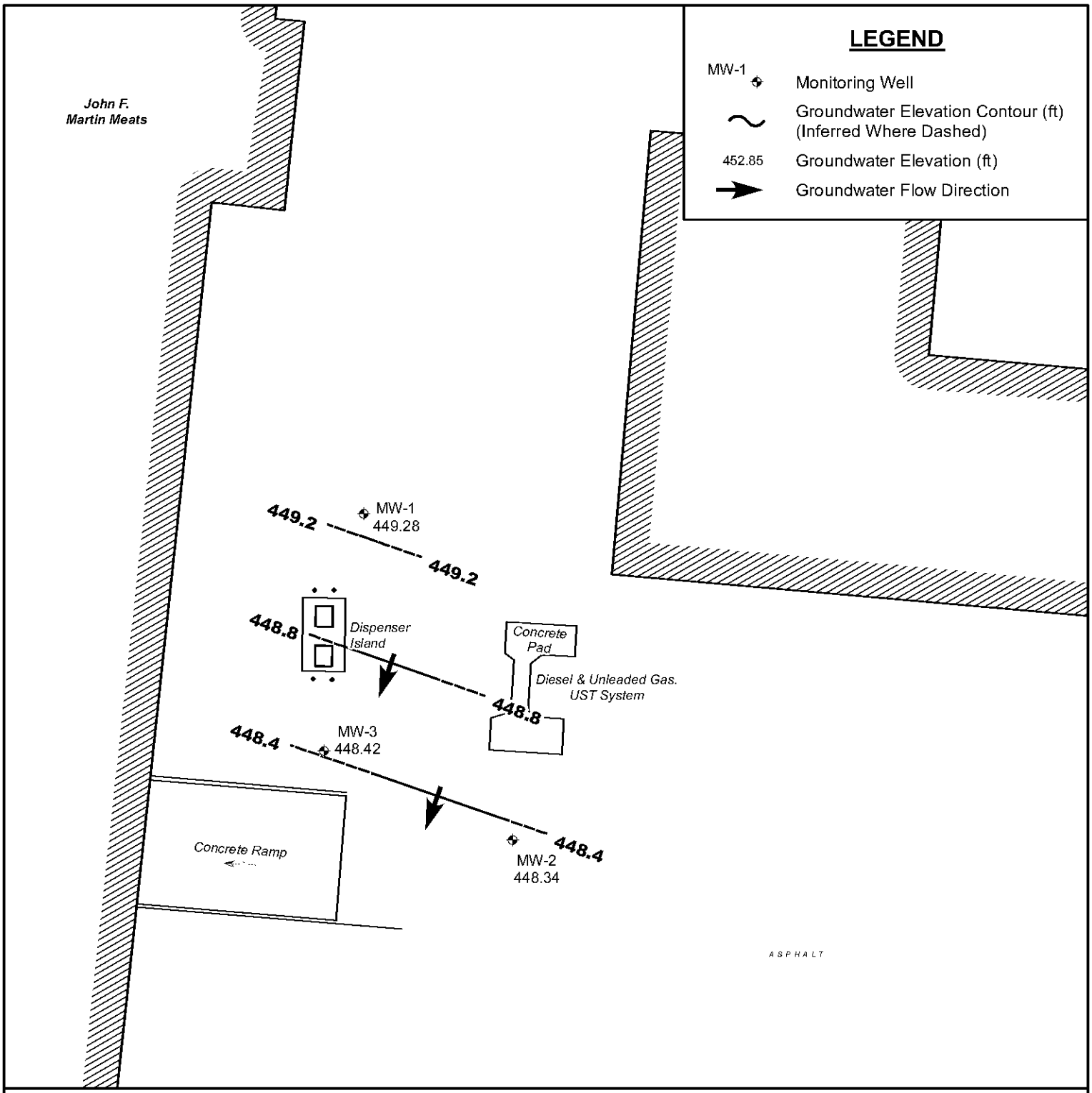
Liberty Environmental, Inc.

480 New Holland Ave. Suite 8203
Lancaster, PA 17602
Phone: 717-517-5000
Fax: 717-517-5004
www.libertyenviro.com

Figure 3 - Soil Boring Locations

John F. Martin Meats
55 Lower Hillside Road
West Cocalico Township, Lancaster County, Pennsylvania

PROJECT NO.: 123456	REV: 0	PREPARED BY: EMC
DATE: FEBRUARY 4, 2016	SCALE: 1" = 20'	APPROVED BY: PEN



NOTE: THIS DRAWING INTENDED FOR ILLUSTRATIVE PURPOSES ONLY, AS PART OF A SITE CHARACTERIZATION. NOT TO BE USED AS A BASIS FOR ENGINEERING OR DESIGN.

SCALE: 1 " = 20 '

0 10 20 40'

N

Figure 4 - Groundwater Flow Map (January 29, 2016)

John F. Martin Meats
55 Lower Hillside Road
West Cocalico Township, Lancaster County, Pennsylvania

Liberty Environmental, Inc.
480 New Holland Ave. Suite 8203
Lancaster, PA 17602
Phone: 717-517-5000
Fax: 717-517-5004
www.libertyenviro.com

PROJECT NO.: 123456	REV: 0	PREPARED BY: EMC
DATE: FEBRUARY 16, 2016	SCALE: 1" = 20'	APPROVED BY: PEN

TABLES

TABLE 1
Soil Sampling Analytical Results Summary
John F. Martin & Sons, Inc., Stevens, Pennsylvania
Liberty Project No. 160003

Location (Depth)	Date	New Diesel Target Compounds							
DEP Medium Specific Concentrations (Non-Residential)		Volatile Organic Compounds (in µg/kg)							
		Benzene	Ethylbenzene	Cumene	MTBE	Naphthalene	Toluene	1,2,4-TMB[1]	1,3,5-TMB[2]
IAQ Default Screening[3]		630	9,500	360,000	86,000	NOC	110,000	29,000	6,400
Direct Contact (0-2 ft)		290,000	10,000,000	10,000,000	3,200,000	56,000,000	10,000,000	560,000	480,000
Direct Contact (2-15 ft)		330,000	10,000,000	10,000,000	3,700,000	190,000,000	10,000,000	640,000	550,000
Soil-to-Groundwater[4]		500	70,000	2,500,000	2,000	25,000	100,000	35,000	9,300
SB-1 (11.9)	1/28/16	<39.7[5]	<39.7	725	<39.7	1,020	<39.7	11,900	1,370
SB-2 (6.9)	1/28/16	<42.2	1,190	360	<42.2	1,320	94.6	7,480	2,430
SB-3 (10.2)	1/28/16	<43.4	<43.4	<43.4	<43.4	<86.8	<43.4	<43.4	<43.4
SB-4 (6.6)	1/28/16	<44.2	<44.2	<44.2	<44.2	<88.4	<44.2	<44.2	<44.2
SB-6 (2.0)	1/28/16	<204	6,230	1,250	<204	3,870	<204	**39,800**	**12,200**

Notes:

1. 1,2,4-TMB - 1,2,4-Trimethylbenzene
2. 1,3,5-TMB - 1,3,5-Trimethylbenzene
3. DEP Soil Screening Values for Protection of Indoor Air.
4. DEP Medium Specific Concentration (MSC) for Used Aquifers, TDS ≤2,500 mg/L.
5. Values preceded by a "<" indicate concentrations below laboratory reporting limits.

Values in bold and yellow shading exceed the applicable Act 2 Statewide Health Standards (lower of direct contact or soil-to-groundwater MSC)

TABLE 2
Groundwater Data Summary
John F. Martin & Sons, Inc., Stevens, PA
Liberty Project No. 160003

Monitoring Well	Date	Top of Casing Elevation (ft amsl)[1]	Depth-to-Water (ft)[2]	Groundwater Elevation (ft amsl)[3]	Diesel Target Compounds							
					Volatile Organic Compounds (in µg/L)							
					Benzene	Ethylbenzene	Isopropyl Benzene	MTBE	Naphthalene	Toluene	1,2,4-TMB[4]	1,3,5 - TMB[5]
Indoor Air Quality Non-Residential Screening Criteria					5,900	45,000	NOC[6]	640,000	NOC	NOC	12,000	10,000
Indoor Air Quality Residential Screening Criteria					3,500	27,000	NOC	380,000	25,000	490,000	8,600	7,200
MSCs for Non-residential Used Aquifer, TDS<= 2,500 MG/L[7]					5	700	3,500	20	100	1,000	62	53
MSCs for Residential Used Aquifer, TDS<= 2,500 MG/L					5	700	840	20	100	1,000	15	13
MW-1	1/29/2016	456.47	7.19	449.28	**11.6**	8.7	50.7	<1.0[8]	**197**	<1.0	**867**	**169**
MW-2	1/29/2016	455.49	7.15	448.34	**16.9**	**1,560**	158	4.9	**1,010**	227	**4,550**	**1,220**
MW-3	1/29/2016	456.10	7.68	448.42	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
Onsite Water Supply Well	1/29/2016	---	---	---	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0

Notes:
1. Surveyed top of casing elevation in feet to a site-specific benchmark (assumed elevation above average mean sea level). The site was surveyed on **January 29, 2016**.
2. Measurement observed from the top of casing.
3. The groundwater elevation was calculated using the following equation: **Top of Casing Elevation - Depth-to-Water = Groundwater Elevation**
4. 1,2,4-TMB - 1,2,4-Trimethylbenzene
5. 1,3,5-TMB - 1,3,5-Trimethylbenzene
6. NOC - Not of Concern
7. MSCs - Medium Specific Concentrations
8. Values preceeded with a "<" indicate the compound was not detected above laboratory reporting limits.
Values in bold and yellow shading exceed the applicable Act 2 Statewide Health Standards (lower of direct contact or soil-to-groundwater MSC)

ATTACHMENT 1
Soil Laboratory Analytical Report

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

February 10, 2016

Mr. Paul Nachlas
Liberty Environmental, Inc.
50 North 5th Street
5th Floor
Reading, PA 19601

Certificate of Analysis

Project Name:	**John F. Martin Meats/160003**	Workorder:	**2121070**
Purchase Order:		Workorder ID:	**John F. Martin Meats/160003**

Dear Mr. Nachlas:

Enclosed are the analytical results for samples received by the laboratory on Thursday, January 28, 2016.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mr. Brad W Kintzer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Katlyn Weik

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Brad W. Kintzer
Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2121070 John F. Martin Meats/160003

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2121070001	SB-1 (11.9)	Solid	1/28/2016 09:02	1/28/2016 16:25	Ms. Katlyn Weik
2121070002	SB-2 (6.9)	Solid	1/28/2016 10:11	1/28/2016 16:25	Ms. Katlyn Weik
2121070003	SB-3 (10.2)	Solid	1/28/2016 10:40	1/28/2016 16:25	Ms. Katlyn Weik
2121070004	SB-4 (6.6)	Solid	1/28/2016 11:20	1/28/2016 16:25	Ms. Katlyn Weik
2121070005	SB-6 (2.0)	Solid	1/28/2016 12:49	1/28/2016 16:25	Ms. Katlyn Weik

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2121070 John F. Martin Meats/160003

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2121070 John F. Martin Meats/160003

Lab ID: **2121070001** Date Collected: 1/28/2016 09:02 Matrix: Solid

Sample ID: **SB-1 (11.9)** Date Received: 1/28/2016 16:25

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Benzene	ND		ug/kg	39.7	SW846 8260C	1/28/16	DD	2/1/16 18:42	DD	A
Ethylbenzene	ND		ug/kg	39.7	SW846 8260C	1/28/16	DD	2/1/16 18:42	DD	A
Isopropylbenzene	725		ug/kg	39.7	SW846 8260C	1/28/16	DD	2/1/16 18:42	DD	A
Methyl t-Butyl Ether	ND		ug/kg	39.7	SW846 8260C	1/28/16	DD	2/1/16 18:42	DD	A
Naphthalene	1020		ug/kg	79.5	SW846 8260C	1/28/16	DD	2/1/16 18:42	DD	A
Toluene	ND		ug/kg	39.7	SW846 8260C	1/28/16	DD	2/1/16 18:42	DD	A
1,2,4-Trimethylbenzene	11900		ug/kg	318	SW846 8260C	1/28/16	JAH	2/2/16 17:02	DD	A
1,3,5-Trimethylbenzene	1370		ug/kg	39.7	SW846 8260C	1/28/16	DD	2/1/16 18:42	DD	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	108		%	71 - 146	SW846 8260C	1/28/16	DD	2/1/16 18:42	DD	A
1,2-Dichloroethane-d4 (S)	41.2	1	%	71 - 146	SW846 8260C	1/28/16	JAH	2/2/16 17:02	DD	A
4-Bromofluorobenzene (S)	123		%	46 - 138	SW846 8260C	1/28/16	DD	2/1/16 18:42	DD	A
4-Bromofluorobenzene (S)	77.9		%	46 - 138	SW846 8260C	1/28/16	JAH	2/2/16 17:02	DD	A
Dibromofluoromethane (S)	51.1		%	42 - 143	SW846 8260C	1/28/16	JAH	2/2/16 17:02	DD	A
Dibromofluoromethane (S)	105		%	42 - 143	SW846 8260C	1/28/16	DD	2/1/16 18:42	DD	A
Toluene-d8 (S)	128		%	54 - 141	SW846 8260C	1/28/16	DD	2/1/16 18:42	DD	A
Toluene-d8 (S)	71.9		%	54 - 141	SW846 8260C	1/28/16	JAH	2/2/16 17:02	DD	A
WET CHEMISTRY										
Moisture	21.3		%	0.1	S2540G-11			2/1/16 00:00	KAM	D
Total Solids	78.7		%	0.1	S2540G-11			2/1/16 00:00	KAM	D

Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2121070 John F. Martin Meats/160003

Lab ID: **2121070002** Date Collected: 1/28/2016 10:11 Matrix: Solid

Sample ID: **SB-2 (6.9)** Date Received: 1/28/2016 16:25

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Benzene	ND		ug/kg	42.2	SW846 8260C	1/28/16	DD	2/1/16 19:05	DD	A
Ethylbenzene	1190		ug/kg	42.2	SW846 8260C	1/28/16	DD	2/1/16 19:05	DD	A
Isopropylbenzene	360		ug/kg	42.2	SW846 8260C	1/28/16	DD	2/1/16 19:05	DD	A
Methyl t-Butyl Ether	ND		ug/kg	42.2	SW846 8260C	1/28/16	DD	2/1/16 19:05	DD	A
Naphthalene	1320		ug/kg	84.4	SW846 8260C	1/28/16	DD	2/1/16 19:05	DD	A
Toluene	94.6		ug/kg	42.2	SW846 8260C	1/28/16	DD	2/1/16 19:05	DD	A
1,2,4-Trimethylbenzene	7480		ug/kg	211	SW846 8260C	1/28/16	CJG	2/4/16 02:01	CJG	A
1,3,5-Trimethylbenzene	2430		ug/kg	42.2	SW846 8260C	1/28/16	DD	2/1/16 19:05	DD	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	99.5		%	71 - 146	SW846 8260C	1/28/16	DD	2/1/16 19:05	DD	A
1,2-Dichloroethane-d4 (S)	77.6		%	71 - 146	SW846 8260C	1/28/16	CJG	2/4/16 02:01	CJG	A
4-Bromofluorobenzene (S)	125		%	46 - 138	SW846 8260C	1/28/16	DD	2/1/16 19:05	DD	A
4-Bromofluorobenzene (S)	83.6		%	46 - 138	SW846 8260C	1/28/16	CJG	2/4/16 02:01	CJG	A
Dibromofluoromethane (S)	107		%	42 - 143	SW846 8260C	1/28/16	DD	2/1/16 19:05	DD	A
Dibromofluoromethane (S)	73.2		%	42 - 143	SW846 8260C	1/28/16	CJG	2/4/16 02:01	CJG	A
Toluene-d8 (S)	124		%	54 - 141	SW846 8260C	1/28/16	DD	2/1/16 19:05	DD	A
Toluene-d8 (S)	81.8		%	54 - 141	SW846 8260C	1/28/16	CJG	2/4/16 02:01	CJG	A
WET CHEMISTRY										
Moisture	19.0		%	0.1	S2540G-11			2/1/16 00:00	KAM	D
Total Solids	81.0		%	0.1	S2540G-11			2/1/16 00:00	KAM	D

Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2121070 John F. Martin Meats/160003

Lab ID: **2121070003** Date Collected: 1/28/2016 10:40 Matrix: Solid

Sample ID: **SB-3 (10.2)** Date Received: 1/28/2016 16:25

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Benzene	ND		ug/kg	43.4	SW846 8260C	1/28/16	DD	2/1/16 18:19	DD	A
Ethylbenzene	ND		ug/kg	43.4	SW846 8260C	1/28/16	DD	2/1/16 18:19	DD	A
Isopropylbenzene	ND		ug/kg	43.4	SW846 8260C	1/28/16	DD	2/1/16 18:19	DD	A
Methyl t-Butyl Ether	ND		ug/kg	43.4	SW846 8260C	1/28/16	DD	2/1/16 18:19	DD	A
Naphthalene	ND		ug/kg	86.8	SW846 8260C	1/28/16	DD	2/1/16 18:19	DD	A
Toluene	ND		ug/kg	43.4	SW846 8260C	1/28/16	DD	2/1/16 18:19	DD	A
1,2,4-Trimethylbenzene	ND		ug/kg	43.4	SW846 8260C	1/28/16	DD	2/1/16 18:19	DD	A
1,3,5-Trimethylbenzene	ND		ug/kg	43.4	SW846 8260C	1/28/16	DD	2/1/16 18:19	DD	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	96.1		%	71 - 146	SW846 8260C	1/28/16	DD	2/1/16 18:19	DD	A
4-Bromofluorobenzene (S)	115		%	46 - 138	SW846 8260C	1/28/16	DD	2/1/16 18:19	DD	A
Dibromofluoromethane (S)	94.1		%	42 - 143	SW846 8260C	1/28/16	DD	2/1/16 18:19	DD	A
Toluene-d8 (S)	122		%	54 - 141	SW846 8260C	1/28/16	DD	2/1/16 18:19	DD	A
WET CHEMISTRY										
Moisture	5.9		%	0.1	S2540G-11			2/1/16 00:00	KAM	D
Total Solids	94.1		%	0.1	S2540G-11			2/1/16 00:00	KAM	D

Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2121070 John F. Martin Meats/160003

Lab ID: **2121070004** Date Collected: 1/28/2016 11:20 Matrix: Solid

Sample ID: **SB-4 (6.6)** Date Received: 1/28/2016 16:25

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Benzene	ND		ug/kg	44.2	SW846 8260C	1/28/16	CJG	2/1/16 23:19	CJG	A
Ethylbenzene	ND		ug/kg	44.2	SW846 8260C	1/28/16	CJG	2/1/16 23:19	CJG	A
Isopropylbenzene	ND		ug/kg	44.2	SW846 8260C	1/28/16	CJG	2/1/16 23:19	CJG	A
Methyl t-Butyl Ether	ND		ug/kg	44.2	SW846 8260C	1/28/16	CJG	2/1/16 23:19	CJG	A
Naphthalene	ND		ug/kg	88.4	SW846 8260C	1/28/16	CJG	2/1/16 23:19	CJG	A
Toluene	ND		ug/kg	44.2	SW846 8260C	1/28/16	CJG	2/1/16 23:19	CJG	A
1,2,4-Trimethylbenzene	ND		ug/kg	44.2	SW846 8260C	1/28/16	CJG	2/1/16 23:19	CJG	A
1,3,5-Trimethylbenzene	ND		ug/kg	44.2	SW846 8260C	1/28/16	CJG	2/1/16 23:19	CJG	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	97.4		%	71 - 146	SW846 8260C	1/28/16	CJG	2/1/16 23:19	CJG	A
4-Bromofluorobenzene (S)	114		%	46 - 138	SW846 8260C	1/28/16	CJG	2/1/16 23:19	CJG	A
Dibromofluoromethane (S)	104		%	42 - 143	SW846 8260C	1/28/16	CJG	2/1/16 23:19	CJG	A
Toluene-d8 (S)	129		%	54 - 141	SW846 8260C	1/28/16	CJG	2/1/16 23:19	CJG	A
WET CHEMISTRY										
Moisture	14.5		%	0.1	S2540G-11			2/5/16 10:59	KAM	D
Total Solids	85.5		%	0.1	S2540G-11			2/5/16 10:59	KAM	D

Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2121070 John F. Martin Meats/160003

Lab ID: **2121070005** Date Collected: 1/28/2016 12:49 Matrix: Solid

Sample ID: **SB-6 (2.0)** Date Received: 1/28/2016 16:25

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Benzene	ND		ug/kg	204	SW846 8260C	1/28/16	CJG	2/1/16 23:42	CJG	A
Ethylbenzene	6230		ug/kg	204	SW846 8260C	1/28/16	CJG	2/1/16 23:42	CJG	A
Isopropylbenzene	1250		ug/kg	204	SW846 8260C	1/28/16	CJG	2/1/16 23:42	CJG	A
Methyl t-Butyl Ether	ND		ug/kg	204	SW846 8260C	1/28/16	CJG	2/1/16 23:42	CJG	A
Naphthalene	3870		ug/kg	407	SW846 8260C	1/28/16	CJG	2/1/16 23:42	CJG	A
Toluene	ND		ug/kg	204	SW846 8260C	1/28/16	CJG	2/1/16 23:42	CJG	A
1,2,4-Trimethylbenzene	39800		ug/kg	814	SW846 8260C	1/28/16	CJG	2/4/16 02:24	CJG	A
1,3,5-Trimethylbenzene	12200		ug/kg	204	SW846 8260C	1/28/16	CJG	2/1/16 23:42	CJG	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	128		%	71 - 146	SW846 8260C	1/28/16	CJG	2/1/16 23:42	CJG	A
1,2-Dichloroethane-d4 (S)	130		%	71 - 146	SW846 8260C	1/28/16	CJG	2/4/16 02:24	CJG	A
4-Bromofluorobenzene (S)	133		%	46 - 138	SW846 8260C	1/28/16	CJG	2/4/16 02:24	CJG	A
4-Bromofluorobenzene (S)	158	2	%	46 - 138	SW846 8260C	1/28/16	CJG	2/1/16 23:42	CJG	A
Dibromofluoromethane (S)	107		%	42 - 143	SW846 8260C	1/28/16	CJG	2/4/16 02:24	CJG	A
Dibromofluoromethane (S)	136		%	42 - 143	SW846 8260C	1/28/16	CJG	2/1/16 23:42	CJG	A
Toluene-d8 (S)	162	1	%	54 - 141	SW846 8260C	1/28/16	CJG	2/1/16 23:42	CJG	A
Toluene-d8 (S)	119		%	54 - 141	SW846 8260C	1/28/16	CJG	2/4/16 02:24	CJG	A
WET CHEMISTRY										
Moisture	14.7		%	0.1	S2540G-11			2/2/16 11:11	SLC	D
Total Solids	85.3		%	0.1	S2540G-11			2/2/16 11:11	SLC	D

Mr. Brad W Kintzer
Project Coordinator

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2121070001	1	SB-1 (11.9)	SW846 8260C	1,2-Dichloroethane-d4

The surrogate 1,2-Dichloroethane-d4 for method SW846 8260C was outside of control limits. The % Recovery was reported as 41.2 and the control limits were 71 to 146. This result was reported at a dilution of 250.

2121070005	1	SB-6 (2.0)	SW846 8260C	Toluene-d8

The surrogate Toluene-d8 for method SW846 8260C was outside of control limits. The % Recovery was reported as 162 and the control limits were 54 to 141. This result was reported at a dilution of 250.

2121070005	2	SB-6 (2.0)	SW846 8260C	4-Bromofluorobenzene

The surrogate 4-Bromofluorobenzene for method SW846 8260C was outside of control limits. The % Recovery was reported as 158 and the control limits were 46 to 138. This result was reported at a dilution of 250.

ALS Environmental
34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/ SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1

Courier:

Tracking #:

2121070

Co. Name: Liberty Environmental

Contact (Report to): K. Weik + P. Nachlas Phone: 717 517 5000

Address: 480 New Holland Ave Suite 8203 Lancaster, PA 17602

Bill to (if different than Report to): Same PO#:

Project Name/#: John F. Martin Meats / 160003 ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges. Date Required: Approved By:

Email? [X] Y kweik & pnachlas@libertyenviro.com

Fax? [ ] Y No:

Sample Description/Location (as it will appear on the lab report)	QC Comments	Sample Date	Military Time	*G or C	**Matrix	Enter Number of Containers Per Analysis								
***Container Type				CG	CG	CG								
***Container Size				40mL	40mL	40z								
***Preservative				MeOH	$NaHCO_3$	—								
1 SB-1 (11.9)		1-28-16	902	G	SO	1	2	1						
2 SB-2 (6.9)			1011											
3 SB-3 (10.2)			1040											
4 SB-4 (16.6)			1120											
5 SB-6 (20)			1249											
6														
7														
8														

Diesel-rev →

Receipt Information (completed by Sample Receipt)

Reference #:

Cooler Temp: 0.1 °C

Therm. ID: 357

No. of Coolers:

Notes:

	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
	Y	Y	Y	Y	
	Y	Y	Y	Y	
	Y	Y	Y	Y	
	Y	Y	Y	Y	
	Y	Y	Y	Y	

Custody seals Present?	(If present) Seals Intact?	Received on Ice?	COC/Labels complete/accurate?	Container in good condition?

SAMPLED BY (Please Print): Kathryn Weik

Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Kathryn Weik / Liberty	1-28-16	1545	2 Paul Waldorf / Liberty	1/29/16	1545
3 Paul Waldorf / Liberty	1-28-16	1625	4	1/28	1625
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] Other

EDDs Required? [ ] If yes, format type:

SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ]

State Samples Collected In? MD [ ] NJ [ ] NY [ ] PA [X] Other

DOD Criteria Required?

ALS FIELD SERVICES: [ ] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* G=Grab; C=Composite

**Matrix: Air=Air; DW=Drinking Water; GW=Groundwater; Oil=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Rev 01-2013

ATTACHMENT 2
Groundwater Laboratory Analytical Report

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

February 4, 2016

Ms. Katlyn Weik
Liberty Environmental, Inc.
50 N. 5th Street
5th floor
Reading, PA 19601

Certificate of Analysis

Project Name:	**John F. Martin Meats/160003**	Workorder:	**2121343**
Purchase Order:		Workorder ID:	**John F. Martin Meats/160003**

Dear Ms. Weik:

Enclosed are the analytical results for samples received by the laboratory on Monday, February 1, 2016.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mr. Brad W Kintzer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Paul Nachlas

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Brad W. Kintzer
Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2121343 John F. Martin Meats/160003

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2121343001	MW-1	Ground Water	1/29/2016 10:32	2/1/2016 16:45	Ms. Katlyn Weik
2121343002	MW-2	Ground Water	1/29/2016 09:58	2/1/2016 16:45	Ms. Katlyn Weik
2121343003	MW-3	Ground Water	1/29/2016 09:55	2/1/2016 16:45	Ms. Katlyn Weik
2121343004	WSW-1	Ground Water	1/29/2016 11:25	2/1/2016 16:45	Ms. Katlyn Weik

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2121343 John F. Martin Meats/160003

Lab ID: **2121343001** Date Collected: 1/29/2016 10:32 Matrix: Ground Water

Sample ID: **MW-1** Date Received: 2/1/2016 16:45

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS									
Benzene	11.6		ug/L	1.0	SW846 8260B		2/2/16 17:14	TMP	A
Ethylbenzene	8.7		ug/L	1.0	SW846 8260B		2/2/16 17:14	TMP	A
Isopropylbenzene	50.7		ug/L	1.0	SW846 8260B		2/2/16 17:14	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	SW846 8260B		2/2/16 17:14	TMP	A
Naphthalene	197		ug/L	20.0	SW846 8260B		2/3/16 23:51	SYB	B
Toluene	ND		ug/L	1.0	SW846 8260B		2/2/16 17:14	TMP	A
1,2,4-Trimethylbenzene	867		ug/L	10.0	SW846 8260B		2/3/16 23:51	SYB	B
1,3,5-Trimethylbenzene	169		ug/L	1.0	SW846 8260B		2/2/16 17:14	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	93.1		%	62 - 133	SW846 8260B		2/2/16 17:14	TMP	A
1,2-Dichloroethane-d4 (S)	85		%	62 - 133	SW846 8260B		2/3/16 23:51	SYB	B
4-Bromofluorobenzene (S)	82.7		%	79 - 114	SW846 8260B		2/3/16 23:51	SYB	B
4-Bromofluorobenzene (S)	79.6		%	79 - 114	SW846 8260B		2/2/16 17:14	TMP	A
Dibromofluoromethane (S)	79.8		%	78 - 116	SW846 8260B		2/3/16 23:51	SYB	B
Dibromofluoromethane (S)	90.6		%	78 - 116	SW846 8260B		2/2/16 17:14	TMP	A
Toluene-d8 (S)	89.9		%	76 - 127	SW846 8260B		2/2/16 17:14	TMP	A
Toluene-d8 (S)	89.3		%	76 - 127	SW846 8260B		2/3/16 23:51	SYB	B

Brad W. Kintzer

Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2121343 John F. Martin Meats/160003

Lab ID: **2121343002** Date Collected: 1/29/2016 09:58 Matrix: Ground Water

Sample ID: **MW-2** Date Received: 2/1/2016 16:45

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS									
Benzene	16.9		ug/L	1.0	SW846 8260B		2/2/16 18:05	TMP	A
Ethylbenzene	1560		ug/L	50.0	SW846 8260B		2/4/16 00:25	SYB	B
Isopropylbenzene	158		ug/L	1.0	SW846 8260B		2/2/16 18:05	TMP	A
Methyl t-Butyl Ether	4.9	1	ug/L	1.0	SW846 8260B		2/2/16 18:05	TMP	A
Naphthalene	1010		ug/L	100	SW846 8260B		2/4/16 00:25	SYB	B
Toluene	227		ug/L	50.0	SW846 8260B		2/4/16 00:25	SYB	B
1,2,4-Trimethylbenzene	4550		ug/L	50.0	SW846 8260B		2/4/16 00:25	SYB	B
1,3,5-Trimethylbenzene	1220		ug/L	50.0	SW846 8260B		2/4/16 00:25	SYB	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	96.7		%	62 - 133	SW846 8260B		2/2/16 18:05	TMP	A
1,2-Dichloroethane-d4 (S)	86.1		%	62 - 133	SW846 8260B		2/4/16 00:25	SYB	B
4-Bromofluorobenzene (S)	83.3		%	79 - 114	SW846 8260B		2/4/16 00:25	SYB	B
4-Bromofluorobenzene (S)	87.3		%	79 - 114	SW846 8260B		2/2/16 18:05	TMP	A
Dibromofluoromethane (S)	80.7		%	78 - 116	SW846 8260B		2/4/16 00:25	SYB	B
Dibromofluoromethane (S)	92.3		%	78 - 116	SW846 8260B		2/2/16 18:05	TMP	A
Toluene-d8 (S)	89		%	76 - 127	SW846 8260B		2/4/16 00:25	SYB	B
Toluene-d8 (S)	81.9		%	76 - 127	SW846 8260B		2/2/16 18:05	TMP	A

Brad W. Kintzer

Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2121343 John F. Martin Meats/160003

Lab ID: **2121343003** Date Collected: 1/29/2016 09:55 Matrix: Ground Water

Sample ID: **MW-3** Date Received: 2/1/2016 16:45

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS									
Benzene	ND		ug/L	1.0	SW846 8260B		2/3/16 22:43	SYB	B
Ethylbenzene	ND		ug/L	1.0	SW846 8260B		2/3/16 22:43	SYB	B
Isopropylbenzene	ND		ug/L	1.0	SW846 8260B		2/3/16 22:43	SYB	B
Methyl t-Butyl Ether	ND		ug/L	1.0	SW846 8260B		2/3/16 22:43	SYB	B
Naphthalene	ND		ug/L	2.0	SW846 8260B		2/3/16 22:43	SYB	B
Toluene	ND		ug/L	1.0	SW846 8260B		2/3/16 22:43	SYB	B
1,2,4-Trimethylbenzene	ND		ug/L	1.0	SW846 8260B		2/3/16 22:43	SYB	B
1,3,5-Trimethylbenzene	ND		ug/L	1.0	SW846 8260B		2/3/16 22:43	SYB	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	86.4		%	62 - 133	SW846 8260B		2/3/16 22:43	SYB	B
4-Bromofluorobenzene (S)	84.7		%	79 - 114	SW846 8260B		2/3/16 22:43	SYB	B
Dibromofluoromethane (S)	78.3		%	78 - 116	SW846 8260B		2/3/16 22:43	SYB	B
Toluene-d8 (S)	87.6		%	76 - 127	SW846 8260B		2/3/16 22:43	SYB	B

Brad W. Kintzer

Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2121343 John F. Martin Meats/160003

Lab ID: **2121343004** Date Collected: 1/29/2016 11:25 Matrix: Ground Water

Sample ID: **WSW-1** Date Received: 2/1/2016 16:45

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS									
Benzene	ND		ug/L	1.0	SW846 8260B		2/3/16 23:00	SYB	B
Ethylbenzene	ND		ug/L	1.0	SW846 8260B		2/3/16 23:00	SYB	B
Isopropylbenzene	ND		ug/L	1.0	SW846 8260B		2/3/16 23:00	SYB	B
Methyl t-Butyl Ether	ND		ug/L	1.0	SW846 8260B		2/3/16 23:00	SYB	B
Naphthalene	ND		ug/L	2.0	SW846 8260B		2/3/16 23:00	SYB	B
Toluene	ND		ug/L	1.0	SW846 8260B		2/3/16 23:00	SYB	B
1,2,4-Trimethylbenzene	ND		ug/L	1.0	SW846 8260B		2/3/16 23:00	SYB	B
1,3,5-Trimethylbenzene	ND		ug/L	1.0	SW846 8260B		2/3/16 23:00	SYB	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	87.4		%	62 - 133	SW846 8260B		2/3/16 23:00	SYB	B
4-Bromofluorobenzene (S)	87		%	79 - 114	SW846 8260B		2/3/16 23:00	SYB	B
Dibromofluoromethane (S)	78.4		%	78 - 116	SW846 8260B		2/3/16 23:00	SYB	B
Toluene-d8 (S)	88.2		%	76 - 127	SW846 8260B		2/3/16 23:00	SYB	B

Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2121343002	1	MW-2	SW846 8260B	Methyl t-Butyl Ether

The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 125 and the control limits were 69 to 115.

ALS Environmental
34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

DWK

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier:
Tracking #:

2121343

Co. Name: Liberty Environmental Inc.
Contact (Report to): Kathyn Weik; Paul Wachlas Phone: 717-517-5200
Address: 480 New Holland Ave.
Suite 8203
Lancaster PA 17602

Bill to (if different than Report to): John F. Martin Meats/
PO#:
Project Name/#: 160003
ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required:
Approved By:

Email? [X] Y kweik@ & prachlas@libertyenviro.com
Fax? [ ] Y No.:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Diesel fuel-new list										Correct containers?	Correct sample volume?	Correct preservation?	Headspace/volatiles?	Circle appropriate Y or N.
	***Container Type						CG														
	***Container Size						40mL														
	Preservative						HCl														
	ANALYSES/METHOD REQUESTED																				
	Enter Number of Containers Per Analysis																				
1	MW-1		1-27-16	1032	G	GW	2										N	N	N	N	N
2	MW-2			958													Y	Y	Y	Y	Y
3	MW-3			955													Y	Y	Y	Y	Y
4	WSW-1			1125													Y	Y	Y	Y	Y
5																	Custody seals Present?	(If present) Seals intact?	Received on Ice?	COC/Labels complete/accurate?	Container in good condition?
6																					
7		2-1-16 1142																			
8																					

Preferred by: WRITE HERE
Cooler Temp:
Therm. ID:
No. of Coolers:
Notes:

SAMPLED BY (Please Print): Kathyn Weik

Project Comments:

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	Kathyn Weik	2-1-16	1415	2	ALS	2/1/16	1415
3		2-1-16	1645	4			
5				6			
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] other
EDDs Required: [ ] If yes, format type:
SDWA Compliance? yes [ ] yes [ ] yes [ ] yes [ ]
State Samples Collected in? MD [ ] NJ [ ] NY [ ] PA [ ] Other
EDD Criteria Required?

ALS FIELD SERVICES: [ ] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* G=Grab; C=Composite
**Matrix: Air=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz, etc. Preservative: HCl, HNO3, NaOH, etc.
Rev 01-2013