City Clerk

From: Shelby County Highway <shelbycohwy@consolidated.net>
Sent: Friday, May 1, 2020 7:33 AM
To: Rachel City Clerk
Subject: Fw: PSI Report Final
Attachments: Morgan Street PSI Report_Apriil 2020_FINAL.pdf

Rachel,

Attached is final environmental report for project 15-00059-00 RS for your records.

thanks

alan

From: Bob Rogers
Sent: Thursday, April 30, 2020 3:32 PM
To: Shelby County Highway
Subject: PSI Report Final

Alan,

The final report is attached. If you need any revisions or additions, please let me know. If you need a cover letter from Bodine, please advise.

Thank you.

Bob R.

PRELIMINARY SITE INVESTIGATION REPORT

of the

South Morgan Street, South 1st Street, & South Washington Street RECs Shelbyville, Shelby County, Illinois 62565

prepared for:

City of Shelbyville
c/o Shelby Engineering
1010 East Northland Drive
Shelbyville Illinois 62565

prepared by:

Bodine Environmental Services, Inc.
2509 West Iles Ave, Suite 103
Springfield, Illinois 62704
(217) 698-0700

Bodine Project No. 127051

April 30, 2020

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1.0 EXECUTIVE SUMMARY

This Preliminary Site Investigation Report (PSI Report) for the South Morgan Street right-of-way (80 feet in width) from station 33+35 to station 37+00 south of the intersection with Illinois State Route 16 (Main Street) and the South 1st Street right-of-way (variable width) from station 100+00 to station 104+00 between South Morgan and South Washington Streets (herein referenced as "Subject Corridor") is completed at the request of the City of Shelbyville and Shelby Engineering.

Bodine Environmental Services, Inc. (Bodine) conducted a Preliminary Environmental Site Assessment (PESA) of the Subject Corridor including two other city streets all located in Shelbyville, Illinois. Forty-six properties were included in the historical records searches for the PESA. The PESA identified six properties as Recognized Environmental Conditions (RECs) within the location of a proposed storm sewer construction project. The six RECs are the focus of a Preliminary Site Investigation (PSI) to determine if the soil that will be disturbed during construction activities is environmentally impacted from the activities at the REC properties. The PSI Work Plan (PSI WP) proposed eleven soil borings and twenty-two soil samples within the Subject Corridor. Prior to conducting the investigation, two borings were omitted due to utility conflicts and a storm sewer design change.

Proposed analytical parameters comprised Target Compound List (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), eight Resource Conservation and Recovery Act (RCRA) metals, polynuclear aromatics (PNAs), and pH. Contaminants of concern (COCs) varied at each REC and are listed in Section 3.1. The results are compared to the maximum allowable concentration (MAC) in 35 Illinois Administrative Code (IAC) Part 1100. Part 1100 uses the soil remediation objectives in 35 IAC Part 742 - Tiered Approach to Corrective Action Objectives "TACO" to define the MAC for each contaminant.

Apparent petroleum impacted soil was discovered in the soil from the soil boring targeting four RECs where former service stations were identified in historical documents during the PESA process. Detectable concentrations of two inorganics in soil samples collected during the PSI failed to meet their applicable MAC in three soil borings targeting a REC where chemical use was suspected. A non-special waste determination is made for the soil from the three borings. Refer to Section 5.0 of this report for additional information and soil use recommendations.

2.0 SITE CHARACTERIZATION

2.1. Sources Consulted or Reviewed

The following list of documents were consulted or reviewed during the characterization of the Subject Corridor:

- Bodine Environmental Services, Inc., October 2, 2019, Preliminary Environmental Site Assessment, Bodine Environmental Services, Inc., Decatur, Illinois.

- Bodine Environmental Services, Inc., January 9, 2020, Preliminary Site Investigation Work Plan, Bodine Environmental Services, Inc., Decatur, Illinois.

2.2. Site History

Bodine completed a PESA in accordance with OFS 2012-1 "A Manual for Conducting Preliminary Environmental Site Assessments for Illinois Department of Transportation Infrastructure Projects" Second Edition and in general conformance with American Society of Testing Materials International Practice E1527-13. Four city street rights-of-way and the forty-six adjacent properties were included in the PESA historical records research. South Morgan Street south of South 1st Street and South 2nd Street rights-of-way were not included in the PSI. The PESA identified, to the extent feasible, six RECs in connection with the PSI Subject Corridor. These RECs are described in further detail in Section 3.1 of this report.

2.3. Project Description

In order to reduce combined sanitary and stormwater flow, a new storm sewer is proposed along the eastern portion South Morgan Street from the southern Main Street right-of-way to South 1st Street. The proposed storm sewer turns eastward and is located in the northern portion of South 1st Street from South Morgan Street to South Washington Street. The proposed storm sewer then travels southward along South Washington Street to a discharge point.

The PSI WP originally included the South Morgan Street, South 1st Street, and South Washington Street rights-of-way where adjacent properties were identified as RECs.in the PESA. The borings targeting the South Washington Street REC were omitted from the PSI Subject Corridor due to an untraceable force main location and a storm sewer design change.

PSI borings were installed to the depths of the proposed storm sewer which ranges from 16 to 20 feet below the ground (bgs) surface.

2.4. Regional Location and Pertinent Boundary Features

The Subject Corridor consists of approximately 765 feet of city street right-of-way along South Morgan Street and South 1st Street. The area comprises industrial/commercial properties located in Shelbyville, Shelby County, Illinois. Nineteen properties owned by different individuals and corporations are located along the Subject Corridor. The Subject Corridor is currently improved with asphalt pavement, industrial and commercial structures, and street/commercial business utilities. The project scope is to improve the existing roadway

and sidewalks, and install new storm sewer. Site maps are provided in Appendix A.

The Subject Corridor is located in Sections 7 and 18, Township 11 North, Range 4 East. The coordinates are Latitude 39° 24' 23" N, Longitude -88° 47' 32" W.

2.5. Stratigraphy and Geology

Surficial geology observed during soil core logging appeared to be silts and clays at various depths and in various thicknesses. A six-inch sand and gravel lens appeared in several borings between six to ten feet bgs. This lens never appeared saturated. Significant amounts of fill material including brick, cinders, glass, and wood was observed in borings B4 through B7. Boring B9 contained sand from nine and a half feet to twenty feet bgs. Saturated conditions were only observed in boring B7. Groundwater appeared in boring B9, but the sand in the boring collapsed before a groundwater sample was collected.

Bedrock geology is the Mattoon Formation of the McLeansboro Group formed during the Pennsylvanian Period which is the youngest Pennsylvanian formation in Illinois. It consists of a complex unit of thin limestones, coals, black fissile shales, underclays, thick gray shales, and several well-developed sandstones. Outcropping is widely scattered. The formation is named from the prevalent outcropping near Mattoon, Coles County, Illinois.

Review of the United States Department of Agriculture "Web Soil Survey" classifies the soil as 291B – Xenia silt loam, Bloomington Ridged Plain, 2 to 5 percent slopes. Soil boring logs are provided in Appendix C.

2.6. Migratory Pathways and Exposure Routes

The applicable exposure routes considered as part of this PSI Report are as follows:

- Residential Soil Ingestion;
- Residential Soil Inhalation;
- Industrial/Commercial Soil Ingestion;
- Industrial/Commercial Soil Inhalation;
- Construction Worker Soil Ingestion;
- Construction Worker Soil Inhalation; and
- Soil Component of Groundwater Ingestion for Class I groundwater.

2.7. Post-Remediation Use

The future use of the Subject Corridor is parking, a roadway or a road right-of-way.

2.8. Site Base Maps

Site maps are provided in Appendix A.

2.9. Sources/Potential Sources of Contamination

The PESA identified six properties within the Subject Corridor as RECs. Fifteen soil samples were collected from the rights-of-way adjacent to these properties except for Parcel #41. Two borings targeting Parcel #41 were omitted. COCs varied at each REC based on historical and current property usage and are discussed in Section 3.1 of this report. Figures 2 and 3 in Appendix A depicts the properties identified as RECs and the sample locations. Tabulated analytical data are presented in Appendix B.

2.9.1. Buildings/Utilities

Please see the figures in Appendix A for all available information.

3.0 INVESTIGATION METHODS

3.1. Identification of Contaminants of Concern

Fifteen soil samples were collected from nine soil borings within the Subject Corridor. The borings were located in areas of suspected soil disturbance from the proposed storm sewer improvements and adjacent to REC properties. Although proposed, groundwater samples were not collected because a sufficient amount of groundwater needed for sample collection was not discovered in the borings except for boring B9. A groundwater sample was not collected from boring B9 because the sand column collapsed when the probe rods were removed.

The soil from each boring was analyzed for the COCs based on information derived from the PESA. Concentrations of the applicable indicator compounds were compared to the applicable MAC.

Project Parcel #3

Owner:	Shelbyville Mutual County Fire
PIN:	2013-07-20-408-023
Physical Address:	156 South Morgan Street, Shelbyville, Illinois 62565
Property Use:	Industrial/Commercial – 0.09 acres
Observations:	One structure is present on the property. This parcel is linked to Parcels 4 and 5.
Database Search:	This site did not appear on any of the regulatory lists checked for this project.
Other Information Sources:	The 1949 Sanborn Map indicates a filling station was present on the property.
Finding:	Based of former property use. This parcel is considered a REC.
COCs	BTEX, PNAs, lead, pH

Project Parcel #4

Owner:	Shelbyville Mutual Insurance Company
PIN:	2013-07-20-408-026
Physical Address:	156 South Morgan Street, Shelbyville, Illinois 62565
Property Use:	Industrial/Commercial – 0.03 acres
Observations:	One structure is present on the property. This parcel is linked to Parcels 3 and 5.
Database Search:	This site did not appear on any of the regulatory lists checked for this project.
Other Information Sources:	The 1949 Sanborn Map indicates a filling station was present on the property.
Finding:	Based of former property use. This parcel is considered a REC.
COCs	BTEX, PNAs, lead, pH

Project Parcel #5

Owner:	State Bank Building, Inc.
PIN:	2013-07-20-408-027
Physical Address:	South Morgan Street, Shelbyville, Illinois 62565
Property Use:	Industrial/Commercial – 0.03 acres
Observations:	One structure is present on the property. This parcel is linked to Parcels 3 and 4.
Database Search:	This site did not appear on any of the regulatory lists checked for this project.
Other Information Sources:	The 1949 Sanborn Map indicates a filling station was present on the property.
Finding:	Based of former property use. This parcel is considered a REC.
COCs	BTEX, PNAs, lead, pH

Project Parcel #12

Owner:	Shelby County Community Services
PIN:	2013-07-20-409-010
Physical Address:	225 East South 1st Street, Shelbyville, Illinois 62565
Property Use:	Industrial/Commercial – 0.11 acres
Observations:	The parcel comprises one building and a parking lot. The site was developed by 1956.
Database Search:	This site did not appear on any of the regulatory lists checked for this project.
Other Information Sources:	The 1949 and 1955 Sanborn Maps indicates a filling station was present on the property.
Finding:	Based of former property use. This parcel is considered a REC.
COCs	BTEX, PNAs, lead, pH

Project Parcel #21

Owner:	Sta-Rite Ginnie Lou Inc.
PIN:	2013-07-20-409-023
Physical Address:	245 East South 1st Street, Shelbyville, Illinois 62565
Property Use:	Industrial/Commercial – 0.35 acres
Observations:	This property currently used for industrial commercial purposes.
Database Search:	This site did not appear on any of the regulatory lists checked for this project.
Other Information Sources:	The User Questionnaire indicates chemical use at the property.
Finding:	Based on the answer presented in the User Questionnaire, the parcel is considered a REC.
COCs	VOCs, SVOCs, RCRA metals, pH

Project Parcel #41

Owner:	Robert E Smith
PIN:	2013-18-08-205-017
Physical Address:	South Washington Street, Shelbyville, Illinois 62565
Property Use:	Residential – 0.35 acres
Observations:	This property is currently undeveloped.
Database Search:	This site did not appear on any of the regulatory lists checked for this project.
Other Information Sources:	The 1978 aerial photograph indicate open dumping.
Finding:	Based on the 1978 aerial, the parcel is considered a REC.
COCs	VOCs, SVOCs, RCRA metals, pH, PCBs

3.2. Screening Levels

To investigate the environmental impacts to the soil in the right-of-way adjacent to the REC properties identified in the PESA, PSI soil sample results are compared to the MAC as defined by 35 IAC 1100.605. The MAC for a particular chemical compound is "the lowest Tier 1 chemical-specific soil value of the exposure routes for residential and construction

worker receptors set forth in 35 Ill. Adm. Code 742.Appendix B, Tables A and B (e.g., soil ingestion exposure route, outdoor inhalation exposure route, soil component of the groundwater ingestion exposure route, construction worker exposure route)."

The objectives for Class I groundwater and the applicable pH-dependent value were used for comparing results to the *soil component of the groundwater ingestion* exposure route.

When applicable, the Acceptable Detection Limit was used as the MAC.

Unless otherwise indicated by a qualifier in the laboratory report, the laboratory analytical method detection limits (MDLs) were equal to or less than the MDLs presented in Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", USEPA Publication No. SW-846, "Methods for the Determination of Organic Compounds in Drinking Water", Supplement II", USEPA Publication No. EPA/600/4-88/039; and "Methods for the Determination of Organic Compounds in Drinking Water, Supplement III", USEPA Publication No. EPA/600/R-95/131.

3.3. Analytical Methods

All field sampling activities were performed in accordance with applicable United States Environmental Protection Agency (USEPA) regulations and guidance, applicable American Society of Testing Materials methods, and applicable Illinois Environmental Protection Agency (Illinois EPA) regulations and guidance. Soil samples were collected consistent with the procedure set forth in EPA SW-846 Method 5035.

Decontaminated stainless-steel rods with disposable poly vinyl chloride macro core tubes were used to collect the soil from each boring. Field personnel used a new pair of disposable nitrile gloves for each soil sample collected. Collected samples were placed in clean laboratory grade containers in accordance with SW846 Method 5035.

Volatile Organic Compounds (VOCs)

Soil samples from borings B1 through B5 were analyzed for benzene, toluene, ethylbenzene, and xylenes (total) (BTEX) and methyl tert-butyl ether (MTBE) by Method 8260B.

Soil samples from borings B6 through B9 were analyzed for the target compound list of VOCs by Method 8260B. The specific list of VOCs is presented in the Appendix B tables.

Semi-volatile Organic Compounds (SVOCs)

Soil samples from borings B6 through B9 were analyzed for the target compound list of

SVOCs by Method 8270C. The specific list of SVOCs is presented in the Appendix B tables.

Inorganics/Metals

Soil samples from borings B1 through B5 were analyzed for lead by Method 6010B.

Soil samples from borings B6 through B9 were analyzed for the eight Resource Conservation and Recovery Act metals by Methods 6010B and 7471A (mercury). The parameters include: Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver.

Polynuclear Aromatics (PNAs)

Soil samples from borings B1 through B5 were analyzed for PNAs by Method 8270C-SIM. The list includes higher end petroleum compounds possessing longer chain hydrocarbons and are provided in the Appendix B tables.

pH
All soil samples were analyzed for pH by Method 9045D.

Samples were documented with a chain of custody and labeled with date, time, location, preservation, and sampler prior to placing in a cooler chilled to 4 degrees Celsius. Samples were shipped overnight to Pace Analytical National Center for Testing & Innovation (PACE) in Mount Juliet, Tennessee, which is a National Environmental Laboratory Accreditation Program and Illinois EPA Certified laboratory.

Extraction tests were not conducted as part of this PSI.

3.4. Additional Data Requirements

No additional data requirements were proposed.

4.0 INVESTIGATION RESULTS

4.1. Narrative of Field Activities

All soil sampling was conducted in accordance with the PSI WP dated January 9, 2020. Subsurface investigation was completed to determine the location and magnitude of soil contamination, if any.

4.1.1. Soil Boring Program

On March 25, 2020, fifteen soil samples were collected from nine borings within the

Subject Corridor. The intent was to determine whether impacted soil from the five targeted parcels identified as RECs in the PESA was present in areas where soil disturbance was expected for the proposed storm sewer project. Samples were collected from areas within the soil column with elevated field instrument readings or areas within the soil column where characteristics indicated potential soil impacts.

4.2. Quality Assurance

The quality assurance (QA) and quality control (QC) requirements ensure that the environmental data collected during this project is of the highest standard feasible, as appropriate for the intended application. The overall QA objective for this project is to implement procedures for field sampling, chain of custody, laboratory analysis, and reporting using standard protocol. A quality assurance project plan was not developed specifically for this project. Standard QA/QC protocol was used.

Soil samples were collected in accordance with the PSI WP. Sample handling procedures included field documentation, chain of custody documentation, sample shipment, and laboratory sample tracking. The possession and handling of samples were documented from the time of collection to delivery to the laboratory. Field personnel maintained custody of all samples until they were relinquished to another custodian, the laboratory, or to the freight shipper. Samples were packaged and transported in a manner that maintained the integrity of the samples and permitted the analysis to be performed within the prescribed holding time with the exception of pH analysis which must be field analyzed to meet the holding time. Samples were shipped overnight to the lab.

Instruments used to gather, generate, or measure field environmental data were calibrated with sufficient frequency and in such manner that accuracy and reproducibility of results were consistent with the manufacturer's specifications. A photo ionization detector (PID) was used to detect VOC concentration while in the field. As applicable, field instruments were calibrated daily prior to use.

The laboratory is responsible for ensuring that the laboratory's data precision and accuracy are maintained in accordance with specifications. Internal laboratory duplicates and calibration checks are performed at a prescribed frequency. Other internal laboratory QA/QC is performed according to laboratory standard operating procedures.

Data quality objectives for measurements during this project were addressed in terms of precision, accuracy, representativeness, completeness, comparability, and sensitivity. QA/QC activities and data usability assessments were performed to ensure that the collected data was properly documented, met project objectives, and produced reliable data.

To keep the volume of the report to a manageable size, the Quality Assurance Project Plan for the laboratory performing the chemical analysis has not been included. However, the Version 17.0 of the ESC Lab Sciences -a subsidiary of Pace Analytical Quality Assurance Manual dated May 1, 2018, is hereby incorporated by reference. A copy of the manual can be obtained by contacting Bodine or Pace at 12065 Lebanon Road, Mt. Juliet, Tennessee 37122. Pace analyzed the soil samples collected during the PSI.

4.3. Data Review

Bodine completed a review of the soil analytical data collected from the nine borings installed during the PSI. Soil boring locations are presented in the Appendix A figures. Tabulated analytical data, the laboratory report and the chain of custody form are provided in Appendix B.

Eight soil samples collected from borings B1 through B5 were analyzed for BTEX, MTBE, PNAs, lead, and pH. The analytical results from all eight soil samples are below the most stringent MACs for borings B1 through B5.

Field observations indicated a petroleum odor in the soil from boring B1. The presence of a volatile organic chemical was confirmed with the PID. PID readings are provided in the boring logs in Appendix C.

Seven soil samples collected from borings B6 through B9 were analyzed for VOCs, SVOCs, 8 RCRA metals, and pH. No VOCs and SVOCs were detected at concentrations exceeding the most stringent MAC in the soil from borings B6 through B9. Concentrations of metals exceeding the MAC were detected in the soil from borings B6, B7, and B8.

4.3.1. Parcels 3, 4, & 5

These three parcels comprise one current use property. Boring B1 was located to target the parcels. Soil with a petroleum odor were observed from nine to eleven feet bgs. PID readings above background (zero) were present in the soil from eight to twelve feet bgs.

Soil analytical results are all below the most stringent MACs for the COCs analyzed at these parcels.

4.3.2. Parcel 12

Borings B1 through B5 were located targeting Parcel 12. Petroleum odors observed in Boring B1 are discussed in Section 4.3.1. Significant amounts of fill material comprising glass, wood, brick, and cinders were observed in borings B4 and B5.

Soil analytical results are all below the most stringent MACs for the COCs analyzed at these parcels.

4.3.3. Parcel 21

Borings B6 through B9 were located targeting Parcel 21. Significant amounts of fill material comprising glass, wood, brick, and cinders were observed in borings B6, B7, and B8.

All detectable VOC concentrations are below the MACs.

All detectable SVOC concentrations are below the MACs.

The chromium concentration in sample B6-1 exceeds the pH specific *soil component of groundwater ingestion* exposure pathway MAC. The mercury concentrations in sample B6-1, B7-2, and B8-1 exceed the *construction worker inhalation* exposure pathway MAC. Results summarized in Table 4-1 below.

Table 4-1

Sample ID	B6-1	B7-2	B8-1	Construction Worker Inhalation	pH Specific Soil Remediation Objectives for the SCGWI Pathway for Class I Groundwater		
Sample Date	03/25/2020	03/25/2020	03/25/2020				
Laboratory ID	L1203485-09	L1203485-12	L1203485-13				
Sample Depth (feet)	4.5	10.5	5.5				
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Inorganics (Metals)					pH Range		
SW-846 6010B					7.75 - 8.24	8.25 - 8.74	8.75 - 9.0
Chromium	26.1				28	24	21
SW-846 7471A							
Mercury	0.131	0.686	0.102	0.1	8.0	----[a]	-----[a]
SW-846 9045D							
pH (reported as unitless)	8.51 T8	7.83 T8	8.36 T8	----	----	-----	----

5.0 CONCLUSION/RECOMMENDATIONS

Based on the results of the investigation, it appears the properties identified as RECs in the PESA may have impacted the soil within the Subject Corridor at some locations where samples were collected. Additionally, it appears a significant amount of fill was placed in the roadway during

past roadway construction or improvements. The PSI identified apparent petroleum impacted soil adjacent to Parcels 3, 4, 5, and 12. The PSI identified detectable inorganic chemical concentrations above the applicable MACs in the soil adjacent to Parcel 21.

Non-detectable VOC and SVOC exceedances are a result of the analytical method precision failing to meet the MAC due to sample dilution or method shortfalls.

The information provided by the PSI is limited to the designated boring locations, site-specific analytical parameters, and the number of samples collected. The conclusions of the PSI are subject to revision if more data becomes available. Soil removed from outside the investigation area that exhibits discoloration or odor indicative of contamination should be sampled to determine the proper disposal classification.

Shelby County, Illinois is not part of the metropolitan statistical area discussed in 35 IAC 742.405.

Unless necessary for disposal purposes additional investigation is not recommended for this project. Soil in the project area has been characterized with regard to Illinois Department of Transportation construction activities. Additional sampling may be required if construction excavation activities extend beyond the previously investigated area and/or if soil or groundwater is encountered that exhibits odor, discoloration, or another characteristic indicative of contamination.

Stockpiled soil generated from areas where the PSI indicated soil contaminant concentrations above MACs should be protected from precipitation, off-site migration, and storm water runoff.

Mercury concentrations above the *construction worker inhalation* exposure pathway MAC were detected in borings B6, B7, and B8. Appropriate precautions are the responsibility of the construction contractor.

5.1. Soil Management

5.1.1. Parcels 3, 4, & 5

Two soil samples were collected from Boring B1 near Morgan Street station 33+75. The soil analytical results do not exceed the applicable MACs. Soil exhibiting petroleum odor as confirmed by the PID was discovered at eight feet bgs.

Excavated soil in this area located less than eight feet bgs and not exhibiting petroleum odor or elevated PID readings may be used without restriction.

Due to elevated PID readings, excavated soil in this area located more than eight feet

bgs can be utilized within the construction limits or managed and disposed off-site as "uncontaminated soil" according to Article 202.03. However, the soil cannot be taken to a Clean Construction or Demolition Debris facility or an uncontaminated soil fill operation.

5.1.2. Parcel 12

See Section 5.1.1 regarding Boring B1.

Six soil samples were collected from Borings B2 through B5. The soil analytical results from these borings do not exceed the applicable MACs. Excavated soil in this area may be used without restriction.

5.1.3. Parcel 21

Six soil samples were collected from Borings B6, B7, and B8. One soil sample was collected from Boring B9. With the exception of the following two COCs, the concentrations of all other detected COCs are below the most stringent MACs.

The chromium concentration of 26.1 mg/kg in the soil from sample B6-1 exceeds the pH specific *soil component of groundwater ingestion* exposure pathway MAC.

The mercury concentrations in the soil from samples B6-1, B7-2, and B8-1 exceed the *construction worker inhalation* exposure pathway MAC.

5.2. Estimated Soil Management Volumes and Costs

5.2.1. Non-Special Waste

Soil from Borings B6, B7, and B8 is considered "non-special waste" based on historical property use and available analytical data. As described in this section soil excavated form the proposed storm sewer trench shall be managed as a "non-special waste" providing a non-special waste certification is submitted by the generator according to conditions in 415 ILCS 5/22.48 and 415 IL CS 5/3.475.

A six-foot trench width and the trench depth depicted in the plan sheets (located in Appendix A) as provided by the design engineer were used for soil volume estimates. The distances between borings with uncontaminated soil and those with non-special waste were divided in half to determine the horizontal dimension for volume estimation. Trench depth may be adjusted where two samples were collected from the same boring and only one contains COCs exceeding a MAC.

Boring B6

Based on the soil boring log and the analytical data from sample B6-2, soil from twelve to 18 feet bgs is considered uncontaminated and use is unrestricted. Soil from zero to twelve feet bgs is considered a non-special waste and will be used for volume and cost estimates.

The volume of soil requiring non-special waste management is estimated at 133 cubic yards (199.5 tons).

Estimated disposal cost $5,340.00

Boring B7

Based on the soil boring log and the analytical data from sample B7-1, soil from zero to 8 feet bgs is considered uncontaminated and use is unrestricted. Soil from eight to eighteen feet bgs is considered a non-special waste and will be used for volume and cost estimates.

The volume of soil requiring non-special waste management is estimated at 111 cubic yards (166.5 tons).

Estimated disposal cost $4,790.00

Boring B8

Based on the soil boring log and the analytical data from sample B8-2, soil from seven to 20 feet bgs is considered uncontaminated and use is unrestricted. Soil from zero to seven feet bgs is considered a non-special waste and will be used for volume and cost estimates.

The volume of soil requiring non-special waste management is estimated at 78 cubic yards (117 tons).

Estimated disposal cost $3,200.00

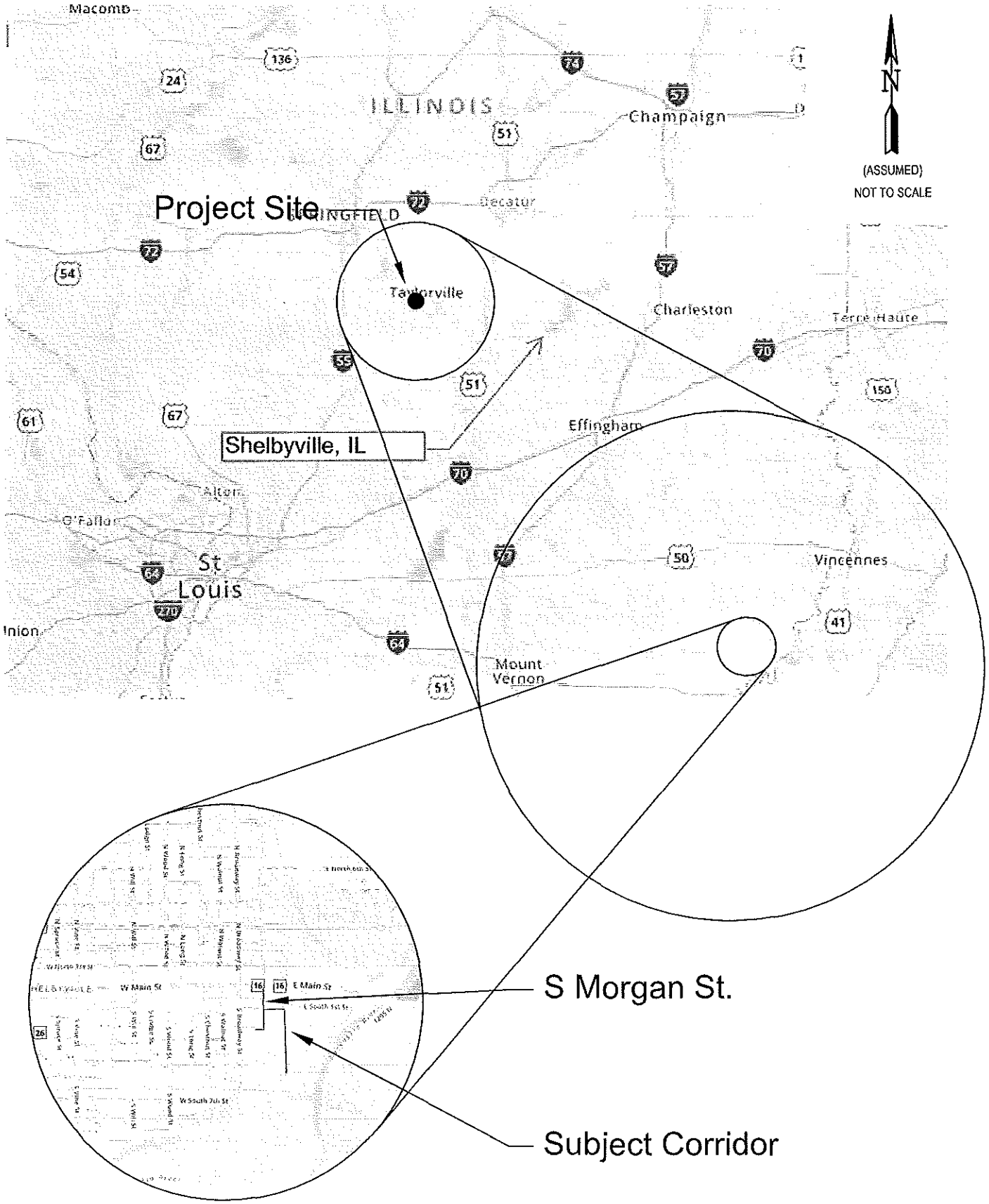
Estimated costs are based on the following figures:

- Non-special waste disposal at Landfill 33 in Effingham, Illinois.
- $25 per ton. 1.5 tons per cubic yard.

- $1 per axle per trip. Five axles per truck. 20-ton average per load.
- $200 permit fee. Based on 483 tons total - $0.41 per ton.
- $500 additional waste profile analytes. Based on 483 tons total - $1.04 per ton.
- Estimated costs are rounded up to nearest dollar.

APPENDIX A

FIGURES



BODINE ENVIRONMENTAL SERVICES, INC. 5350 EAST FIREHOUSE ROAD DECATUR, ILLINOIS 62521	LOCATION MAP Shelby Engineering PSI South Morgan and South1st Streets Shelbyville, Illinois	BODINE PROJECT # 127051 SCALE NO SCALE DATE 4/28/2020	FIGURE 1

FIGURE 2

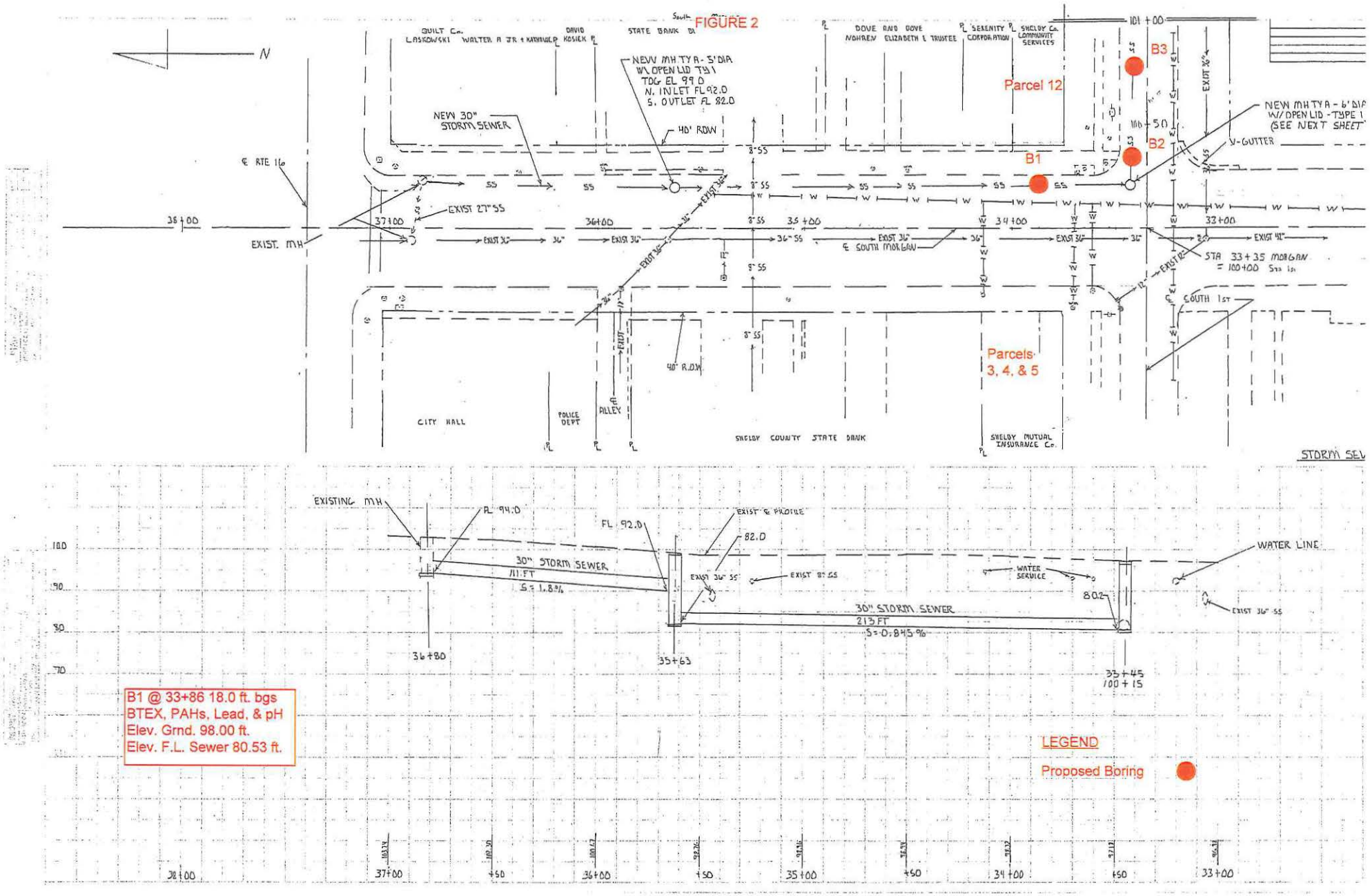
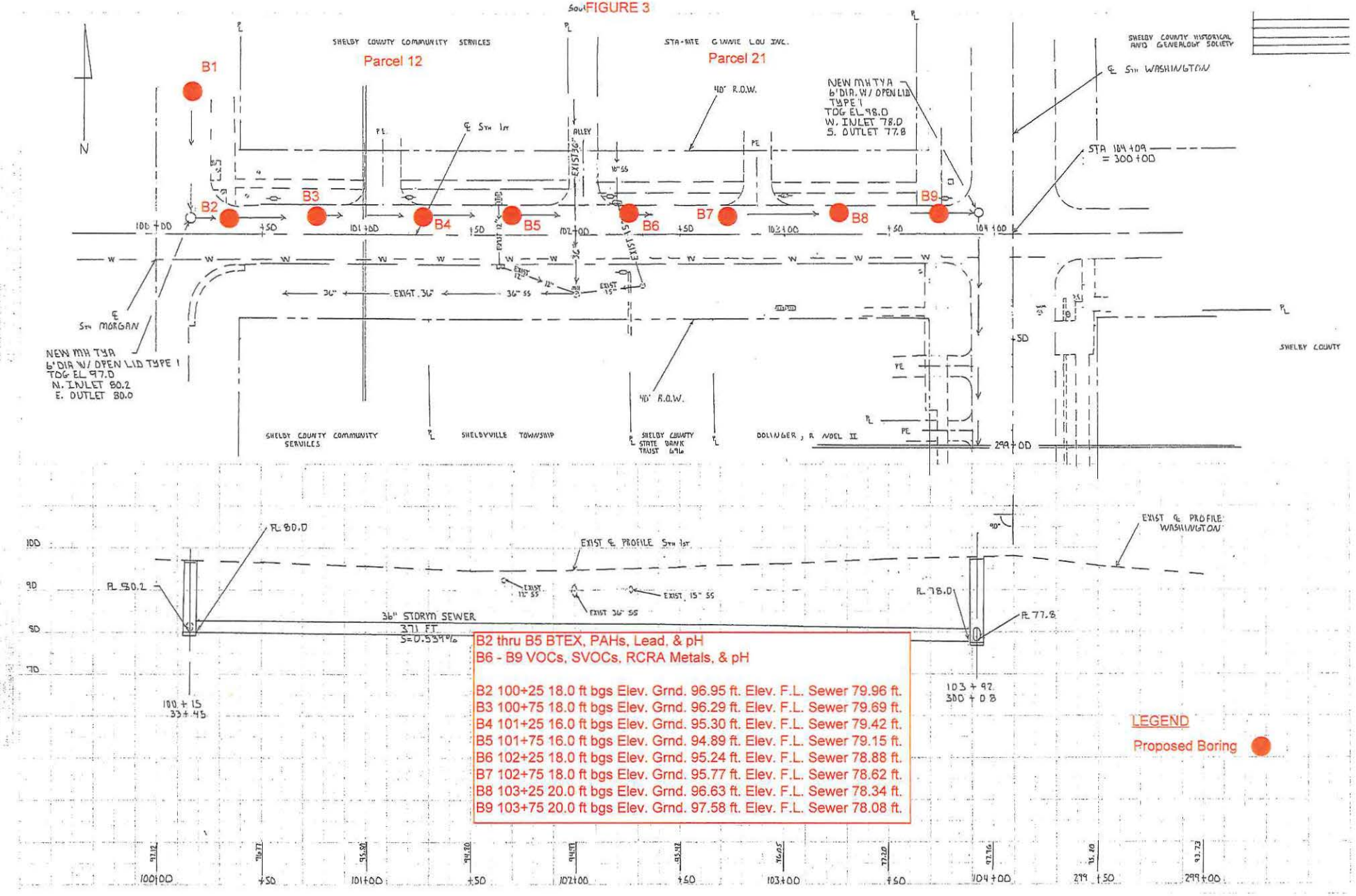

N
QUILT CO. LASKOWSKI WALTER A JR + KATHARINE
DAVID KOSIEK
STATE BANK
DOVE AND DOVE NOHREN ELIZABETH E TRUSTEE
SERENITY CORPORATION
SHELBY CO. COMMUNITY SERVICES
NEW MH TY A - 5' DIA W/ OPEN LID TY 1 TOG EL 99.0 N. INLET FL 92.0 S. OUTLET FL 82.0
NEW 30" STORM SEWER
40' ROW
Parcel 12
B3
B2
B1
NEW MH TY A - 6' DIA W/ OPEN LID - TYPE 1 (SEE NEXT SHEET)
V-GUTTER
EXIST 30"
℄ RTE 16
EXIST 27" SS
EXIST. MH
38+00
37+00
36+00
35+00
34+00
33+00
101+00
100+50
EXIST 36"
EXIST 42"
℄ SOUTH MORGAN
STA 33+35 MORGAN = 100+00 Sta 1st
SOUTH 1ST
Parcels 3, 4, & 5
CITY HALL
POLICE DEPT
ALLEY
SHELBY COUNTY STATE BANK
SHELBY MUTUAL INSURANCE Co.
STORM SEW
EXISTING MH
FL 94.0
FL 92.0
EXIST ℄ PROFILE
82.0
30" STORM SEWER
111 FT
S = 1.8%
EXIST 36" SS
EXIST 81 SS
WATER SERVICE
80.2
WATER LINE
30" STORM SEWER
213 FT
S = 0.845%
EXIST 36" SS
36+80
35+63
33+45
100+15
B1 @ 33+86 18.0 ft. bgs
BTEX, PAHs, Lead, & pH
Elev. Grnd. 98.00 ft.
Elev. F.L. Sewer 80.53 ft.
LEGEND
Proposed Boring

FIGURE 3



B2 thru B5 BTEX, PAHs, Lead, & pH
B6 - B9 VOCs, SVOCs, RCRA Metals, & pH

B2 100+25 18.0 ft bgs Elev. Grnd. 96.95 ft. Elev. F.L. Sewer 79.96 ft.
B3 100+75 18.0 ft bgs Elev. Grnd. 96.29 ft. Elev. F.L. Sewer 79.69 ft.
B4 101+25 16.0 ft bgs Elev. Grnd. 95.30 ft. Elev. F.L. Sewer 79.42 ft.
B5 101+75 16.0 ft bgs Elev. Grnd. 94.89 ft. Elev. F.L. Sewer 79.15 ft.
B6 102+25 18.0 ft bgs Elev. Grnd. 95.24 ft. Elev. F.L. Sewer 78.88 ft.
B7 102+75 18.0 ft bgs Elev. Grnd. 95.77 ft. Elev. F.L. Sewer 78.62 ft.
B8 103+25 20.0 ft bgs Elev. Grnd. 96.63 ft. Elev. F.L. Sewer 78.34 ft.
B9 103+75 20.0 ft bgs Elev. Grnd. 97.58 ft. Elev. F.L. Sewer 78.08 ft.

FIGURE 4

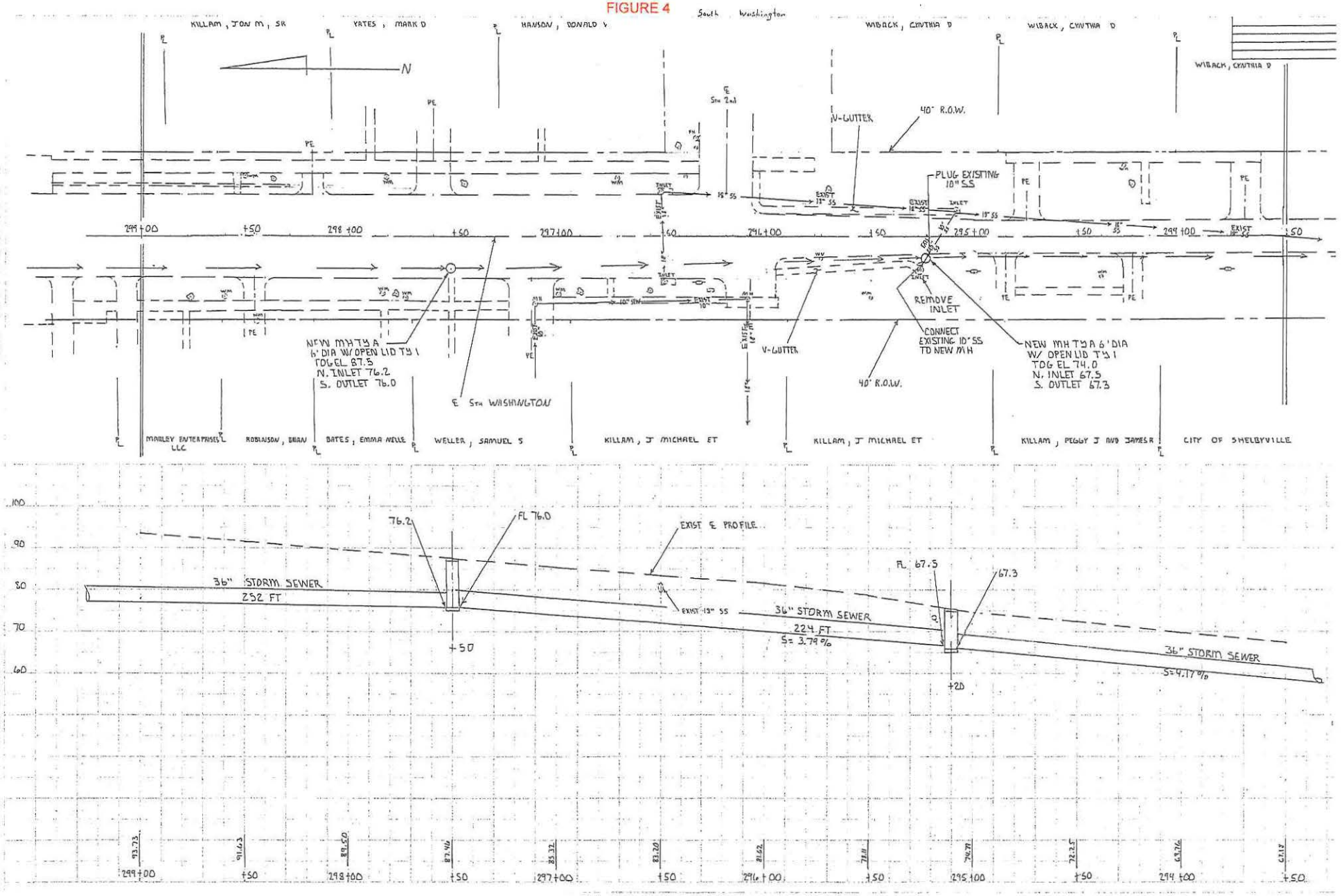
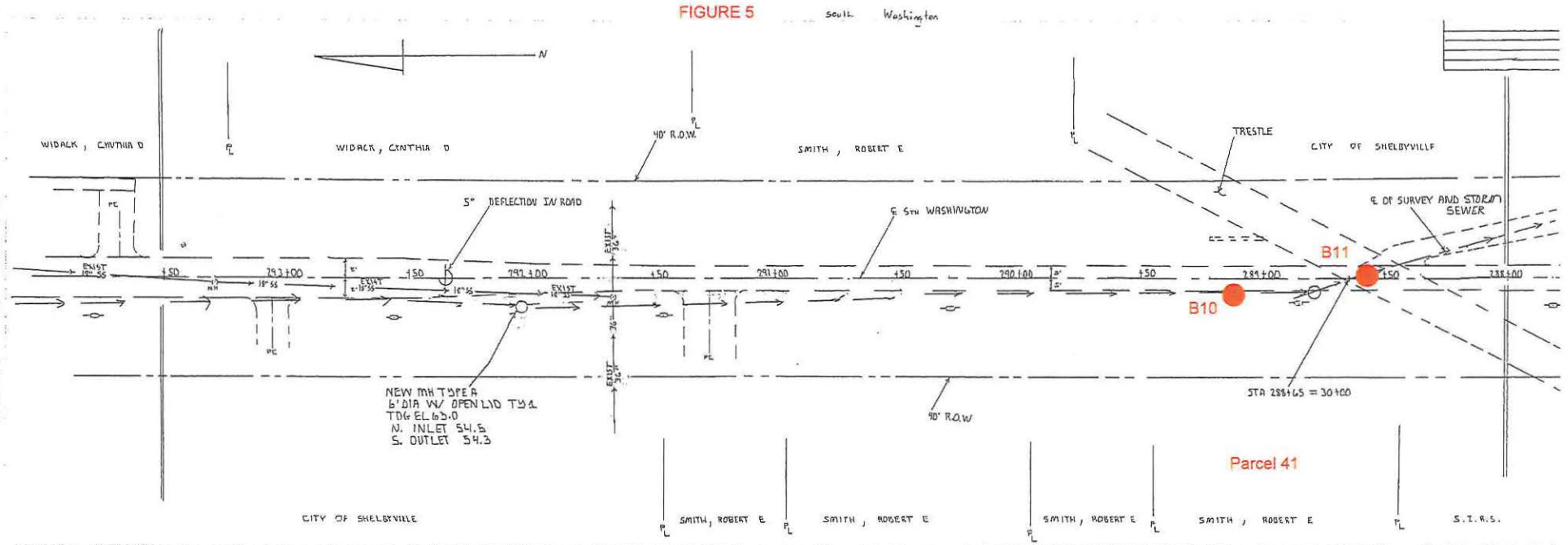

South Washington
KILLAM, JON M, SR
YATES, MARK D
HANSON, DONALD V
WIBACK, CYNTHIA D
WIBACK, CYNTHIA D
WIBACK, CYNTHIA D
N
Sta 2nd
V-GUTTER
40' R.O.W.
PLUG EXISTING 10" SS
299+00
+50
298+00
+50
297+00
+50
296+00
+50
295+00
+50
294+00
+50
NEW MH TY A 6' DIA W/ OPEN LID TY I TOG EL 87.5 N. INLET 76.2 S. OUTLET 76.0
E 5TH WASHINGTON
V-GUTTER
40' R.O.W.
REMOVE INLET
CONNECT EXISTING 10" SS TO NEW MH
NEW MH TY A 6' DIA W/ OPEN LID TY I TOG EL 74.0 N. INLET 67.5 S. OUTLET 67.3
MAILEY ENTERPRISES LLC
ROBINSON, BRIAN
BATES, EMMA NELLE
WELLER, SAMUEL S
KILLAM, J MICHAEL ET
KILLAM, J MICHAEL ET
KILLAM, PEGGY J AND JAMES R
CITY OF SHELBYVILLE
100
90
80
70
60
76.2
FL 76.0
EXIST E PROFILE
36" STORM SEWER
252 FT
EXIST 15" SS
36" STORM SEWER
224 FT
S= 3.79%
FL 67.5
67.3
36" STORM SEWER
S=4.17%
+50
+20
299+00
+50
298+00
+50
297+00
+50
296+00
+50
295+00
+50
294+00
+50

FIGURE 5


South Washington
WIDACK, CYNTHIA D
WIDACK, CYNTHIA D
40' R.O.W.
SMITH, ROBERT E
TRESTLE
CITY OF SHELBYVILLE
5" DEFLECTION IN ROAD
E 5TH WASHINGTON
E OF SURVEY AND STORM SEWER
B11
B10
NEW MH TYPE A
6' DIA W/ OPEN LID TYP.
TOP EL 60.0
N. INLET 54.5
S. OUTLET 54.3
STA 288+65 = 30+00
40' R.O.W
Parcel 41
CITY OF SHELBYVILLE
SMITH, ROBERT E
SMITH, ROBERT E
SMITH, ROBERT E
SMITH, ROBERT E
S.I.R.S.

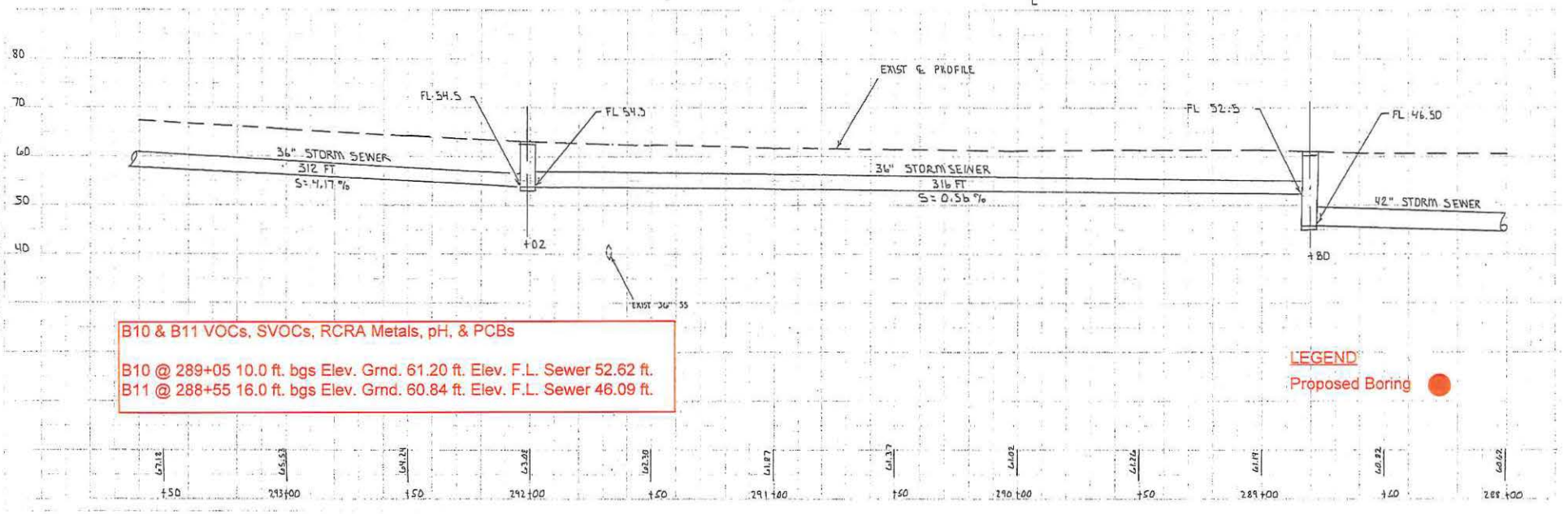
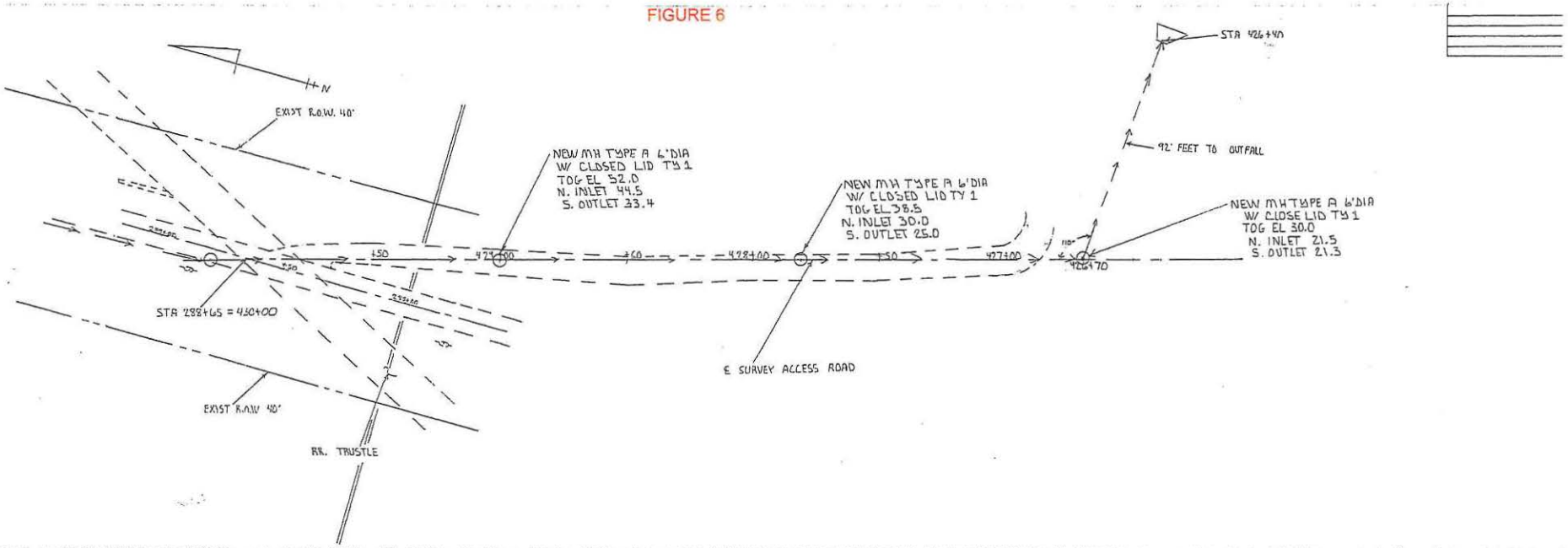
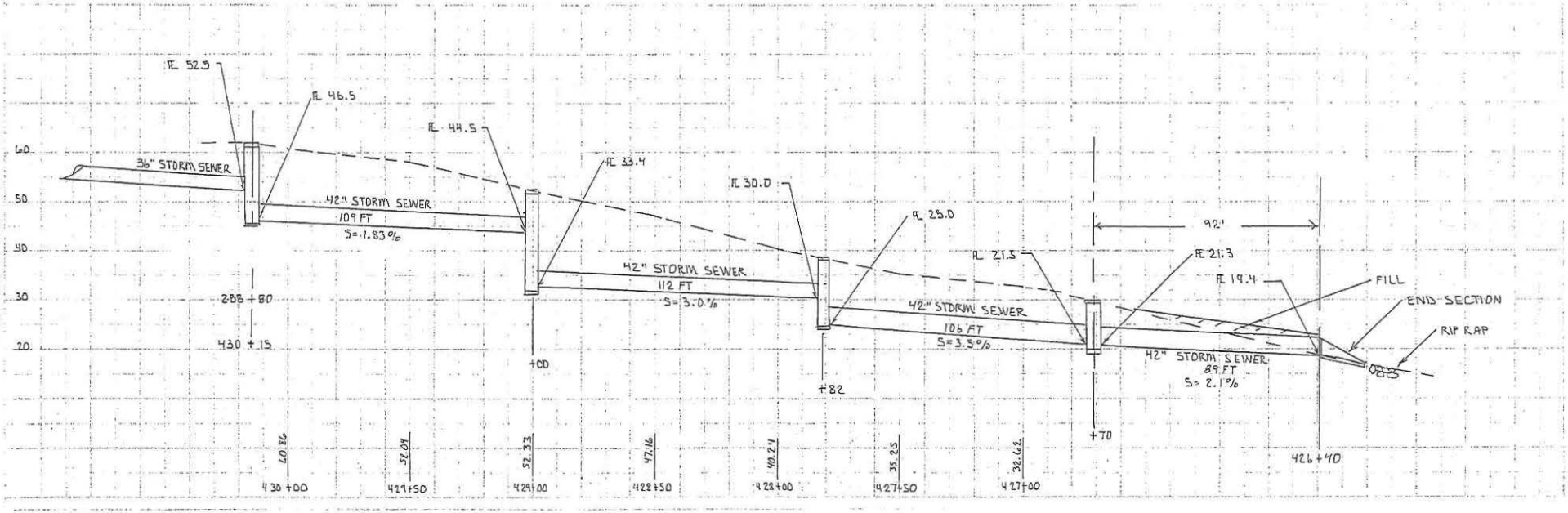

EXIST E PROFILE
FL 54.5
FL 54.5
36" STORM SEWER
312 FT
S=4.17%
36" STORM SEINER
316 FT
S=0.56%
FL 52.5
FL 46.50
42" STORM SEWER
+02
+80
EXIST 36" SS
B10 & B11 VOCs, SVOCs, RCRA Metals, pH, & PCBs
B10 @ 289+05 10.0 ft. bgs Elev. Grnd. 61.20 ft. Elev. F.L. Sewer 52.62 ft.
B11 @ 288+55 16.0 ft. bgs Elev. Grnd. 60.84 ft. Elev. F.L. Sewer 46.09 ft.
LEGEND
Proposed Boring

FIGURE 6


N
EXIST R.O.W. 40'
NEW MH TYPE A 6'DIA
W/ CLOSED LID TY 1
TOG EL 52.0
N. INLET 44.5
S. OUTLET 33.4
NEW MH TYPE A 6'DIA
W/ CLOSED LID TY 1
TOG EL 38.5
N. INLET 30.0
S. OUTLET 25.0
NEW MH TYPE A 6'DIA
W/ CLOSE LID TY 1
TOG EL 30.0
N. INLET 21.5
S. OUTLET 21.3
STA 426+40
92' FEET TO OUTFALL
STA 288+65 = 430+00
EXIST R.O.W. 40'
RR. TRUSTLE
E SURVEY ACCESS ROAD
+50
429+00
+60
428+00
+50
427+00
426+70


FE 52.5
FE 46.5
FE 44.5
FE 33.4
FE 30.0
FE 25.0
FE 21.5
FE 21.3
FE 19.4
60
50
40
30
20
36" STORM SEWER
42" STORM SEWER
109 FT
S=1.83%
42" STORM SEWER
112 FT
S=3.0%
42" STORM SEWER
106 FT
S=3.5%
42" STORM SEWER
89 FT
S=2.1%
92'
FILL
END SECTION
RIP RAP
288+80
430+15
+00
+82
+70
426+40
40.86
32.09
52.33
47.16
40.24
35.25
32.62
430+00
429+50
429+00
428+50
428+00
427+50
427+00

APPENDIX B

ANALYTICAL TABLES
LABORATORY REPORT

Table 1 Soil Analytical Results - BTEX & MTBE

Morgan Street PSI
Morgan Street and 1st Street. Shelbyville, Illinois
Updated April 27, 2020, Bodine Environmental Services, Inc.
Project #127051

Sample ID	B1-1	B1-2	B2-1	B2-2							Soil Component of Groundwater Ingestion
Sample Date	03/25/2020	03/25/2020	03/25/2020	03/25/2020							
Sample Depth (feet)	10.0	15.5	6.0	17.5	Residential		Industrial-Commercial		Construction Worker		
Laboratory ID	L1203485-01	L1203485-02	L1203485-03	L1203485-04	Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Volatile Organic Compounds (VOCs)											
SW-846 8270B											
Compound Name											
Benzene	< 0.00111	< 0.00111	< 0.00115	< 0.00113 J3	12[e]	0.8[e]	100[e]	1.6[e]	2,300[e]	2.2[e]	0.03
Toluene	< 0.00554	< 0.00555	< 0.00575	< 0.00564 J3	16,000[b]	650[d,x]	410,000[b]	650[d]	410,000[b]	42[b]	12
Ethylbenzene	**0.000825 J**	< 0.00277	< 0.00287	< 0.00282	7,800[b]	400[d,x]	200,000[b]	400[d]	20,000[b]	58[b]	13
Xylenes (total)	< 0.00720	< 0.00721	< 0.00747	< 0.00733	16,000[b]	320[d,x]	410,000[b]	320[d]	41,000[b]	5.6[b]	150
Methyl tert-butyl ether	< 0.00111	< 0.00111	< 0.00115	< 0.00113	780[b]	8,800[d,x]	20,000[b]	8,800[d]	2,000[b]	140[b]	0.32

Sample ID	B3-1	B3-2	B4	B5							Soil Component of Groundwater Ingestion
Sample Date	03/25/2020	03/25/2020	03/25/2020	03/25/2020							
Sample Depth (feet)	7.0	9.5	14.5	14.5	Residential		Industrial-Commercial		Construction Worker		
Laboratory ID	L1203485-05	L1203485-06	L1203485-07	L1203485-08	Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Volatile Organic Compounds (VOCs)											
SW-846 8270B											
Compound Name											
Benzene	< 0.00116	< 0.00113	**0.000791 J**	< 0.00122	12[e]	0.8[e]	100[e]	1.6[e]	2,300[e]	2.2[e]	0.03
Toluene	< 0.00578	**0.0015 J**	**0.00227 J**	< 0.00608	16,000[b]	650[d,x]	410,000[b]	650[d]	410,000[b]	42[b]	12
Ethylbenzene	< 0.00289	< 0.00283	< 0.00319	< 0.00304	7,800[b]	400[d,x]	200,000[b]	400[d]	20,000[b]	58[b]	13
Xylenes (total)	< 0.00751	< 0.00735	< 0.00829	< 0.00790	16,000[b]	320[d,x]	410,000[b]	320[d]	41,000[b]	5.6[b]	150
Methyl tert-butyl ether	< 0.00116	< 0.00113	< 0.00128	< 0.00122	780[b]	8,800[d,x]	20,000[b]	8,800[d]	2,000[b]	140[b]	0.32

NOTES:
Indicates most stringent objective.
b - Calculated values correspond to a target hazard quotient of 1.
d - Soil saturation concentration (Csat) = the concentration at which absorptive limits of the soil particles, the solubility limits of the available soil moisture, and saturation of soil pore air have been reached. Above the soil saturation concentration, the assumptions regarding vapor transport to air and/or dissolved phase transport to groundwater (for chemicals which are liquid at ambient soil temperatures) have been violated, and alternative modeling approaches are required.
e - Calculated values correspond to a cancer risk level of 1 in 1,000,00
J - The identification of the analyte is acceptable; the reported value is an estimate.
J3 - The associated batch QC was outside the established quality control range for precision.
x - The remediation objectives for these chemicals must also include the construction worker inhalation objective in Appendix B, Table B.
mg/kg - milligrams per kilogram reported as dry weight, also referred to as parts per million (ppm).

Table 2a Soil Analytical Results - Polynuclear Aromatics

Morgan Street PSI
Morgan Street and 1st Street. Shelbyville, Illinois
Updated April 27, 2020, Bodine Environmental Services, Inc.
Project #127051

Sample ID (Qualifier)	B1-1	B1-2	B2-1	B2-2							Soil Component of Groundwater Ingestion
Sample Date	03/25/2020	03/25/2020	03/25/2020	03/25/2020	Residential		Industrial-Commercial		Construction Worker		
Laboratory ID	10.0	15.5	6.0	17.5	Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I
Sample Depth (ft.)	L1203485-01	L1203485-02	L1203485-03	L1203485-04							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Polycyclic Aromatic Hydrocarbons											
SW-846 8270C-SIM											
Compound Name											
Anthracene	< 0.00665	< 0.00666	< 0.00690	< 0.00677	23,000[b]	----[c]	610,000[b]	----[c]	610,000[b]	----[c]	12,000[b]
Acenaphthene	< 0.00665	< 0.00666	< 0.00690	< 0.00677	4,700[b]	----[c]	120,000[b]	----[c]	120,000[b]	----[c]	570[b]
Acenaphthylene **	< 0.00665	< 0.00666	< 0.00690	< 0.00677	2,300 [b]	----[c]	61,000 [b]	----[c]	61,000 [b]	----[c]	85 [b]
Benzo(a)anthracene	< 0.00665	< 0.00666	< 0.00690	< 0.00677	0.9[e,w]	----[c]	8[e]	----[c]	170[e]	----[c]	2
Benzo(a)pyrene	< 0.00665	< 0.00666	< 0.00690	< 0.00677	0.09[e,w]	----[c]	0.8[e,x]	----[c]	17[e]	----[c]	8
Benzo(b)fluoranthene	< 0.00665	< 0.00666	< 0.00690	**0.000863 J**	0.9[e,w]	----[c]	8[e]	----[c]	170[e]	----[c]	5
Benzo(g,h,i)perylene **	**0.000876 J**	**0.00178 J**	**0.00073 J**	**0.000703 J**	2,300 [b]	----[c]	61,000 [b]	----[c]	61,000 [b]	----[c]	27,000 [b]
Benzo(k)fluoranthene	< 0.00665	< 0.00666	< 0.00690	< 0.00677	9[e]	----[c]	78[e]	----[c]	1,700[e]	----[c]	49
Chrysene	< 0.00665	< 0.00666	< 0.00690	**0.00091 J**	88[e]	----[c]	780[e]	----[c]	17,000[e]	----[c]	160
Dibenzo(a,h)anthracene	< 0.00665	< 0.00666	**0.000695 J**	< 0.00677	0.09[e,w]	----[c]	0.8[e]	----[c]	17[e]	----[c]	2
Fluoranthene	< 0.00665	< 0.00666	< 0.00690	**0.000917 J**	3,100[b]	----[c]	82,000[b]	----[c]	82,000[b]	----[c]	4,300[b]
Fluorene	< 0.00665	**0.000713 J**	< 0.00690	< 0.00677	3,100[b]	----[c]	82,000[b]	----[c]	82,000[b]	----[c]	560[b]
Indeno(1,2,3-cd)pyrene	< 0.00665	< 0.00666	< 0.00690	< 0.00677	0.9[e,w]	----[c]	8[e]	----[c]	170[e]	----[c]	14
Naphthalene	**0.00329 J**	< 0.0222	< 0.0230	< 0.0226	1,600 [b]	170 [b,x]	41,000 [b]	270 [b]	4,100 [b]	1.8 [b]	12 [b]
Phenanthrene **	< 0.00665	**0.00176 J**	**0.000974 J**	**0.00298 J**	2,300 [b]	----[c]	61,000 [b]	----[c]	61,000 [b]	----[c]	210 [b]
Pyrene	< 0.00665	**0.00141 J**	< 0.00690	< 0.00677	2,300 [b]	----[c]	61,000 [b]	----[c]	61,000 [b]	----[c]	4,200 [b]
1-Methylnaphthalene **	< 0.0222	< 0.0222	< 0.0230	< 0.0226	5,500 [b]	----[c]	140,000 [b]	----[c]	14,000 [b]	----[c]	130 [b]
2-Methylnaphthalene **	< 0.0222	< 0.0222	< 0.0230	< 0.0226	310 [b]	----[c]	8,200 [b]	----[c]	820 [b]	----[c]	1.9 [b]
2-Chloronaphthalene **	< 0.0222	< 0.0222	< 0.0230	< 0.0226	6,300 [b]	----[c]	160,000 [b]	----[c]	41,000 [b]	----[c]	49 [b]

NOTES:
Indicates most stringent objective.
** - Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit, Remediation Objectives for Non-TACO Compounds, Revised October 30, 2012.
a - Soil remediation objective based on human health criteria only.
b - Calculated values correspond to a target hazard quotient of 1.
----[c] - No toxicity criteria for this route of exposure.
d - Soil saturation concentration (Csat) = the concentration at which absorptive limits of the soil particles, the solubility limits of the available soil moisture, and saturation of soil pore air have been reached. Above the soil saturation concentration, the assumptions regarding vapor transport to air and/or dissolved phase transport to groundwater (for chemicals which are liquid at ambient soil temperatures) have been violated, and alternative modeling approaches are required.
e - Calculated values correspond to a cancer risk level of 1 in 1,000,000.
J - The identification of the analyte is acceptable; the reported value is an estimate.
w - For sites located in any populated area as defined in Section 742.200, Appendix A, Table H may be used.
x - The remediation objectives for these chemicals must also include the construction worker inhalation objective in Appendix B, Table B.
mg/kg - milligrams per kilogram reported as dry weight. Also referred to as parts per million (ppm).

Table 2b Soil Analytical Results - Polynuclear Aromatics

Morgan Street PSI
Morgan Street and 1st Street. Shelbyville, Illinois
Updated April 27, 2020, Bodine Environmental Services, Inc.
Project #127051

Sample ID (Qualifier)	B3-1	B3-2	B4	B5	Residential		Industrial-Commercial		Construction Worker		Soil Component of Groundwater Ingestion	
Sample Date	03/25/2020	03/25/2020	03/25/2020	03/25/2020	Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II
Laboratory ID	7.0	9.5	14.5	14.5								
Sample Depth (ft.)	L1203485-05	L1203485-06	L1203485-07	L1203485-08								
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Polycyclic Aromatic Hydrocarbons												
SW-846 8270C-SIM												
Compound Name												
Anthracene	< 0.00693	< 0.00678	**0.00339 J**	< 0.00729	23,000[b]	----[c]	610,000[b]	----[c]	610,000[b]	----[c]	12,000[b]	59,000
Acenaphthene	< 0.00693	< 0.00678	< 0.00765	< 0.00729	4,700[b]	----[c]	120,000[b]	----[c]	120,000[b]	----[c]	570[b]	2,900
Acenaphthylene **	< 0.00693	< 0.00678	< 0.00765	< 0.00729	2,300[b]	----[c]	61,000[b]	----[c]	61,000[b]	----[c]	85[b]	420
Benzo(a)anthracene	< 0.00693	< 0.00678	**0.00199 J**	**0.0018 J**	0.9[e,w]	----[c]	8[e]	----[c]	170[e]	----[c]	2	8
Benzo(a)pyrene	< 0.00693	< 0.00678	**0.00167 J**	**0.00128 J**	0.09[e,w]	----[c]	0.8[e,x]	----[c]	17[e]	----[c]	8	82
Benzo(b)fluoranthene	< 0.00693	< 0.00678	**0.00184 J**	**0.00153 J**	0.9[e,w]	----[c]	8[e]	----[c]	170[e]	----[c]	5	25
Benzo(g,h,i)perylene **	< 0.00693	< 0.00678	**0.00163 J**	**0.000987 J**	2,300[b]	----[c]	61,000[b]	----[c]	61,000[b]	----[c]	27,000[b]	130,000
Benzo(k)fluoranthene	< 0.00693	< 0.00678	**0.00125 J**	**0.000739 J**	9[e]	----[c]	78[e]	----[c]	1,700[e]	----[c]	49	250
Chrysene	< 0.00693	< 0.00678	**0.00177 J**	**0.00176 J**	88[e]	----[c]	780[e]	----[c]	17,000[e]	----[c]	160	800
Dibenzo(a,h)anthracene	< 0.00693	< 0.00678	**0.00115 J**	< 0.00729	0.09[e,w]	----[c]	0.8[e]	----[c]	17[e]	----[c]	2	7.6
Fluoranthene	< 0.00693	< 0.00678	**0.00261 J**	**0.0036 J**	3,100[b]	----[c]	82,000[b]	----[c]	82,000[b]	----[c]	4,300[b]	21,000
Fluorene	< 0.00693	< 0.00678	< 0.00765	< 0.00729	3,100[b]	----[c]	82,000[b]	----[c]	82,000[b]	----[c]	560[b]	2,800
Indeno(1,2,3-cd)pyrene	< 0.00693	< 0.00678	**0.00148 J**	**0.000835 J**	0.9[e,w]	----[c]	8[e]	----[c]	170[e]	----[c]	14	69
Naphthalene	< 0.0231	< 0.0226	< 0.0255	< 0.0243	1,600[b]	170[b,x]	41,000[b]	270[b]	4,100[b]	1.8[b]	12[b]	18
Phenanthrene **	< 0.00693	< 0.00678	**0.00286 J**	**0.0131**	2,300[b]	----[c]	61,000[b]	----[c]	61,000[b]	----[c]	210[b]	1,100
Pyrene	< 0.00693	< 0.00678	**0.00242 J**	**0.00288 J**	2,300[b]	----[c]	61,000[b]	----[c]	61,000[b]	----[c]	4,200[b]	21,000
1-Methylnaphthalene **	< 0.0231	< 0.0226	< 0.0255	< 0.0243	5,500[b]	----[c]	140,000[b]	----[c]	14,000[b]	----[c]	130[b]	330[d]
2-Methylnaphthalene **	< 0.0231	< 0.0226	< 0.0255	< 0.0243	310[b]	----[c]	8,200[b]	----[c]	820[b]	----[c]	1.9[b]	9.5
2-Chloronaphthalene **	< 0.0231	< 0.0226	< 0.0255	< 0.0243	6,300[b]	----[c]	160,000[b]	----[c]	41,000[b]	----[c]	49[e]	240

NOTES:
Indicates most stringent objective.
** - Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit, Remediation Objectives for Non-TACO Compounds, Revised October 30, 2012.
a - Soil remediation objective based on human health criteria only.
b - Calculated values correspond to a target hazard quotient of 1.
----[c] - No toxicity criteria for this route of exposure.
d - Soil saturation concentration (Csat) = the concentration at which absorptive limits of the soil particles, the solubility limits of the available soil moisture, and saturation of soil pore air have been reached. Above the soil saturation concentration, the assumptions regarding vapor transport to air and/or dissolved phase transport to groundwater (for chemicals which are liquid at ambient soil temperatures) have been violated, and alternative modeling approaches are required.
e - Calculated values correspond to a cancer risk level of 1 in 1,000,000.
w - For sites located in any populated area as defined in Section 742.200, Appendix A, Table H may be used.
x - The remediation objectives for these chemicals must also include the construction worker inhalation objective in Appendix B, Table B.
mg/kg - milligrams per kilogram reported as dry weight. Also referred to as parts per million (ppm).
N/A - Chemical compound not analyzed.

Table 3a Soil Analytical Results - Volatile Organic Compounds

Morgan Street PSI
Morgan Street and 1st Street, Shelbyville, Illinois
Updated April 27, 2020, Bodine Environmental Services, Inc.
Project #127051

Sample ID	B6-1	B6-2	B7-1	B7-2							Soil Component of Groundwater Ingestion		
Sample Date	03/25/2020	03/25/2020	03/25/2020	03/25/2020	Residential		Industrial-Commercial		Construction Worker				
Laboratory ID	L1203485-09	L1203485-10	L1203485-11	L1203485-12	Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	ADL
Sample Depth (feet)	4.5	14.5	6.0	10.5	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Units	mg/kg	mg/kg	mg/kg	mg/kg									
Volatile Organic Compounds (VOCs)													
SW-846 8260B													
Compound Name													
Acetone	< 0.0301	< 0.0295	< 0.0287	< 0.0361	70,000 [b]	100,000 [d]	---- [g]	100,000 [d]	---- [g]	100,000 [d]	25 [b]	25	
Acrylonitrile **	< 0.0151	< 0.0148	< 0.0143	< 0.0180	1.2 [b]	0.29 [b,j]	11 [b]	0.56 [b]	230 [b]	0.17 [a]	0.0006 [b]	0.0006	
Benzene	**0.000595 J**	< 0.00118	< 0.00115	**0.00677**	12	0.8	100	1.6	2,300	2.2	0.03	0.17	
Bromobenzene **	< 0.0151	< 0.0148	< 0.0143	< 0.0180	630 [a]	630 [a,j]	16,000 [a]	810 [d]	4,100 [a]	22 [a]	0.86 [a]	4.3	
Bromodichloromethane	< 0.00301	< 0.00295	< 0.00287	< 0.00361	10	3,000	92	3,000	2,000	3,000	0.6	0.6	
Bromoform	< 0.0301	< 0.0295	< 0.0287	< 0.0361	81	53	720	100	16,000	140	0.8	0.8	
Bromomethane	< 0.0151	< 0.0148	< 0.0143	< 0.0180	110 [b]	10 [b,x]	2,900 [b]	15 [b]	1,000 [b]	3.9 [b]	0.2 [b]	1.2	
n-Butylbenzene **	< 0.0151	< 0.0148	< 0.0143	< 0.0180	3,900 [a]	---- [c]	100,000 [a]	---- [c]	20,000 [a]	---- [c]	52 [a]	87 [d]	
sec-Butylbenzene *	< 0.0151	< 0.0148	< 0.0143	< 0.0180	780 [b]	42 [d]	20,000 [b]	42 [d]	20,000 [b]	42 [d]	15 [b]	75	
tert-Butylbenzene *	< 0.00602	< 0.00590	< 0.00573	< 0.00722	780 [b]	77 [d]	20,000 [b]	77 [d]	20,000 [b]	77 [d]	6.5 [b]	33	
Carbon tetrachloride	< 0.00602	< 0.00590	< 0.00573	< 0.00722	5 [e]	0.3 [e]	44	0.64	410	0.90	0.07	0.33	
Chlorobenzene	< 0.00301	< 0.00295	< 0.00287	< 0.00361	1,600 [b]	130 [b,x]	41,000	210	4,100	1.3	1	6.5	
Chlorodibromomethane	< 0.00301	< 0.00295	< 0.00287	< 0.00361	1,600 [b]	1,300 [d]	41,000	1,300	41,000	1,300	0.4	0.4	
Chloroethane **	< 0.00602	< 0.00590	< 0.00573	< 0.00722	---- [c]	1,500 [d,j]	---- [c]	1,500 [d]	20,000 [a]	39 [a]	---- [c,h]	---- [c,h]	
Chloroform	< 0.00301	< 0.00295	< 0.00287	< 0.00361	100 [e]	0.3 [e]	940 [e]	0.54 [e]	2,000 [b]	0.76 [e]	0.6	2.9	
Chloromethane **	< 0.0151	< 0.0148	< 0.0143	< 0.0180	---- [c]	110 [a,j]	---- [c]	180 [a]	---- [c]	5 [a]	---- [c,h]	---- [c,h]	
2-Chlorotoluene	< 0.00301	< 0.00295	< 0.00287	< 0.00361	----	----	----	----	----	----	----	----	
4-Chlorotoluene	< 0.00602	< 0.00590	< 0.00573	< 0.00722	----	----	----	----	----	----	----	----	
1,2-Dibromo-3-Chloropropane	< 0.0301	< 0.0295	< 0.0287	< 0.0361	0.46 [e]	11 [b,x]	4 [e]	17 [b]	89 [e]	0.11 [b]	0.002	0.02	
1,2-Dibromoethane	< 0.00301	< 0.00295	< 0.00287	< 0.00361	0.32 [e]	0.06 [e]	2.9 [e]	0.12 [e]	62 [e]	0.16	0.0004	0.004	0.005
Dibromomethane	< 0.00602	< 0.00590	< 0.00573	< 0.00722	----	----	----	----	----	----	----	----	
1,2-Dichlorobenzene	< 0.00602	< 0.00590	< 0.00573	< 0.00722	7,000 [b]	560 [d,x]	180,000 [b]	560 [d]	18,000 [b]	310 [b]	17	43	
1,3-Dichlorobenzene *	< 0.00602	< 0.00590	< 0.00573	< 0.00722	70 [b]	570 [d]	1,800 [b]	570 [d]	180 [b]	570 [d]	0.2 [b]	1.0	
1,4-Dichlorobenzene	< 0.00602	< 0.00590	< 0.00573	< 0.00722	---- [c]	11,000 [b,x]	---- [c]	17,000 [b]	---- [c]	340 [b]	2	11	
Dichlorodifluoromethane **	< 0.00301	< 0.00295	< 0.00287	< 0.00361	16,000 [a]	200 [a,j]	410,000 [a]	310 [a]	180,000 [a]	20 [a]	43 [a]	220	
1,1-Dichloroethane	< 0.00301	< 0.00295	< 0.00287	< 0.00361	7,800 [b]	1,300 [b,x]	200,000 [b]	1,700 [d]	200,000 [b]	130 [b]	23 [a]	110	
1,2-Dichloroethane	< 0.00301	< 0.00295	< 0.00287	< 0.00361	7 [e]	0.4 [e]	63 [e]	0.70 [e]	1,400 [e]	0.99 [e]	0.02	0.1	
1,1-Dichloroethene	< 0.00301	< 0.00295	< 0.00287	< 0.00361	3,900 [b]	290 [b,x]	100,000 [b]	470 [b]	10,000 [b]	3.0 [b]	0.06	0.3	
cis-1,2-Dichloroethene	< 0.00301	< 0.00295	< 0.00287	< 0.00361	780 [b]	1,200 [d]	20,000 [b]	1,200 [d]	20,000 [b]	1,200 [d]	0.4	1.1	
trans-1,2-Dichloroethene	< 0.00602	< 0.00590	< 0.00573	< 0.00722	1,600 [b]	3,100 [d]	41,000 [b]	3,100 [d]	41,000 [b]	3,100 [d]	0.7	3.4	
1,2-Dichloropropane	< 0.00602	< 0.00590	< 0.00573	< 0.00722	9 [e]	15 [b,x]	84 [e]	23 [b]	1,800 [e]	0.50 [b]	0.03	0.15	
1,1-Dichloropropene	< 0.00301	< 0.00295	< 0.00287	< 0.00361	----	----	----	----	----	----	----	----	
1,3-Dichloropropane **	< 0.00602	< 0.00590	< 0.00573	< 0.00722	1,600 [a]	---- [c]	41,000 [a]	---- [c]	41,000 [a]	---- [c]	0.83 [a]	0.83	
cis-1,3-Dichloropropene	< 0.00301	< 0.00295	< 0.00287	< 0.00361	----	----	----	----	----	----	----	----	
trans-1,3-Dichloropropene	< 0.00602	< 0.00590	< 0.00573	< 0.00722	----	----	----	----	----	----	----	----	
1,3-Dichloropropene ***	< 0.00903	< 0.00885	< 0.00860	< 0.01083	6.4 [e]	1.1 [e,x]	57 [e]	2.1 [e]	1,200 [e]	0.39 [b]	0.004 [e]	0.02	0.005
2,2-Dichloropropane	< 0.00301	< 0.00295	< 0.00287	< 0.00361	----	----	----	----	----	----	----	----	
Di-isopropyl ether **	< 0.00120	< 0.00118	< 0.00115	< 0.00144	---- [c]	470 [d,j]	---- [c]	470 [d]	---- [c]	21 [a]	---- [c,h]	---- [c,h]	
Ethylbenzene	**0.00222 J**	< 0.00295	< 0.00287	< 0.00361	7,800 [b]	400 [d,x]	200,000 [b]	400 [d]	20,000 [b]	58 [b]	13	19	
Hexachloro-1,3-butadiene **	< 0.0301	< 0.0295	< 0.0287	< 0.0361	78 [a]	---- [c]	2,000 [a]	---- [c]	200 [a]	---- [c]	2.2 [a]	11	
Isopropylbenzene **	**0.00112 J**	< 0.00295	< 0.00287	< 0.00361	7,800 [a]	500 [a,j]	200,000 [a]	800 [a]	82,000 [a]	52 [a]	91 [a]	400 [d]	
p-Isopropyltoluene	< 0.00602	< 0.00590	< 0.00573	< 0.00722	----	----	----	----	----	----	----	----	
2-Butanone (MEK) **	**0.0316 B**	**0.0197 B J**	**0.0214 B J**	**0.0517 B**	47,000 [a]	25,000 [d,j]	1,000,000 [a]	25,000 [d,j]	120,000 [a]	730 [a]	17 [a]	17	
Methylene Chloride	< 0.0301	< 0.0295	< 0.0287	< 0.0361	85 [e]	13 [e]	760 [e]	24 [e]	12,000 [b]	34 [e]	0.02 [g]	0.2	
4-Methyl-2-pentanone (MIBK) **	< 0.0301	< 0.0295	< 0.0287	< 0.0361	6,300 [a]	3,100 [d,j]	160,000 [a]	3,100 [d]	160,000 [a]	340 [a]	2.5 [a]	2.5	
Methyl tert-butyl ether	< 0.00120	< 0.00118	< 0.00115	< 0.00144	780 [b]	8,800 [d,x]	20,000 [b]	8,800 [d]	2,000 [b]	140 [b]	0.32	0.32	
Naphthalene	**0.00797 J**	< 0.0148	< 0.0143	< 0.0180	1,600 [b]	170 [b,x]	41,000 [b]	270 [b]	4,100 [b]	1.8 [b]	12 [b]	18	
n-propylbenzene **	**0.00171 J**	< 0.00590	< 0.00573	< 0.00722	7,800 [a]	300 [d,j]	200,000 [a]	300 [d]	20,000 [a]	91 [a]	31 [a]	120 [d]	
Styrene	< 0.0151	< 0.0148	< 0.0143	< 0.0180	16,000 [b]	1,500 [d,x]	410,000 [b]	1,500 [d]	41,000 [b]	430 [b]	4	18	
1,1,1,2-Tetrachloroethane	< 0.00301	< 0.00295	< 0.00287	< 0.00361	2,300 [a]	---- [c]	61,000 [a]	---- [c]	18,000 [a]	---- [c]	3.4 [a]	17	
1,1,2,2-Tetrachloroethane **	< 0.00301	< 0.00295	< 0.00287	< 0.00361	3.2 [b]	0.62 [b,j]	27 [b]	1.2 [b]	620 [b]	1.7 [b]	0.0035 [b]	0.0035	
1,1,2-Trichlorotrifluoroethane 76-13-1	< 0.00301	< 0.00295	< 0.00287	< 0.00361	1,000,000 [a]	1,000 [d,j]	1,000,000 [a]	1,000 [d]	610,000 [a]	350 [a]	450 [d]	450 [d]	
Tetrachloroethene	< 0.00301	< 0.00295	< 0.00287	< 0.00361	12 [e]	11 e	110 e	20 e	2,400 e	28 e	0.06	0.3	
Toluene	**0.00561 J**	< 0.00590	< 0.00573	**0.081**	16,000 [b]	650 [d,x]	410,000 [b]	650 [d]	410,000 [b]	42 [b]	12	29	
1,2,3-Trichlorobenzene **	< 0.0151	< 0.0148	< 0.0143	< 0.0180	63 [a]	---- [c]	1,600 [a]	---- [c]	1,600 [a]	---- [c]	0.46 [a]	2.3	
1,2,4-Trichlorobenzene	< 0.0151	< 0.0148	< 0.0143	< 0.0180	780 [b]	3,200 [b,x]	20,000 [b]	3,200 [d]	2,000 [b]	920 [b]	5	53	
1,1,1-Trichloroethane	< 0.00301	< 0.00295	< 0.00287	< 0.00361	---- [c]	1,200 [d]	---- [c]	1,200 [d]	---- [c]	1,200 [d]	2	9.6	
1,1,2-Trichloroethane	< 0.00301	< 0.00295	< 0.00287	< 0.00361	310 [b]	1,800 [d]	8,200 [b]	1,800 [d]	8,200 [b]	1,800 [d]	0.02	0.3	
Trichloroethene	< 0.00120	< 0.00118	< 0.00115	< 0.00144	58 [e]	5 [e]	520 [e]	8.9 [e]	1,200 [b]	12 [e]	0.06	0.3	
Trichlorofluoromethane **	< 0.00301	< 0.00295	< 0.00287	< 0.00361	23,000 [a]	870 [a,j]	610,000 [a]	1,400 [a]	140,000 [a]	13 [a]	34 [a]	170	
1,2,3-Trichloropropane **	< 0.0151	< 0.0148	< 0.0143	< 0.0180	0.021 [b]	3.2 [a,j]	0.19 [b]	5.0 [a]	4.1 [b]	0.32 [a]	0.000017 [b]	0.000017	
1,2,4-Trimethylbenzene **	**0.00727**	< 0.00590	< 0.00573	< 0.00722	---- [c]	87 [a,j]	---- [c]	140 [a]	---- [c]	8.9 [a]	---- [c,h]	---- [c,h]	
1,2,3-Trimethylbenzene **	**0.00715**	< 0.00590 J4	< 0.00573 J4	< 0.00722 J4	---- [c]	66 [a,j]	---- [c]	110 [a]	---- [c]	6.9 [a]	---- [c]	---- [c]	
1,3,5-Trimethylbenzene **	**0.00361 J**	< 0.00590	< 0.00573	< 0.00722	780 [a]	---- [c]	20,000 [a]	---- [c]	20,000 [a]	0.79 [a]	2.0 [a]	10	
Vinyl chloride	< 0.00301	< 0.00295	< 0.00287	< 0.00361	0.46 [e]	0.28 [e]	7.9 [e]	1.1 [e]	170 [a]	1.1 [b]	0.01	0.07	
Xylenes, Total	**0.00864**	< 0.00768	< 0.00745	< 0.00938	16,000 [b]	320 [b,x]	410,000 [b]	320 [b]	41,000 [b]	5.6 [b]	150	150	

NOTES:

Indicates most stringent objective.

* - Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit, Remediation Objectives for Non-TACO Compounds, October 1, 2004.

** - Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit, Remediation Objectives for Non-TACO Compounds, Revised October 30, 20

*** - Reported analytical result is the summation of *cis* + *trans* components.

---- No objective available.

a - Soil remediation objective based on human health criteria only.

b - Calculated values correspond to a target hazard quotient of 1.

B - The same analyte is found in the associated blank.

----[c] - No toxicity criteria for this route of exposure.

d - Soil saturation concentration (Csat) = the concentration at which absorptive limits of the soil particles, the solubility limits of the available soil moisture, and saturation of soil pore air have been reached. Above the soil saturation concentration, the assumptions regarding vapor transport to air and/or dissolved phase transport to groundwater (for chemicals which are liquid at ambient soil temperatures) have been violated, and alternative modeling approaches are required.

e - Calculated values correspond to a cancer risk level of 1 in 1,000,000.

----[g] - Chemical-specific properties are such that this route is not of concern at any soil contaminant concentration.

h - Although lacking a health-based groundwater ingestion objective, the inhalation RfC or URF indicates that this chemical could represent a potential threat through volatilization during indoor groundwater use. Contact the Toxicity Assessment Unit for assistance in evaluating this pathway.

i - The remediation objectives for this receptor must also include the Construction Worker inhalation objective.

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

J4 - The associated batch QC was outside the established quality control range for accuracy.

x - The remediation objectives for these chemicals must also include the construction worker inhalation objective in Appendix B, Table B.

ADL - Acceptable Detection Limit.

mg/kg - milligrams per kilogram reported as dry weight. Also referred to as parts per million (ppm).

Table 3b Soil Analytical Results - Volatile Organic Compounds

Morgan Street PSI
Morgan Street and 1st Street. Shelbyville, Illinois
Updated April 27, 2020, Bodine Environmental Services, Inc.
Project #127051

Sample ID	B8-1	B8-2	B9	Residential		Industrial-Commercial		Construction Worker		Soil Component of Groundwater Ingestion		
Sample Date	03/25/2020	03/25/2020	03/25/2020									
Laboratory ID	L1203485-13	L1203485-14	L1203485-15	Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	ADL
Sample Depth (feet)	5.5	10.5	10.0	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Units	mg/kg	mg/kg	mg/kg									
Volatile Organic Compounds (VOCs)												
SW-846 8260B												
Compound Name												
Acetone	< 0.0286	< 0.0318	< 0.0287	70,000 [b]	100,000 [d]	---- [g]	100,000 [d]	---- [g]	100,000 [d]	25 [g]	25	
Acrylonitrile **	< 0.0143	< 0.0159	< 0.0144	1.2 [b]	0.29 [bJ]	11 [b]	0.56 [b]	230 [b]	0.17 [a]	0.0006 [b]	0.0006	
Benzene	< 0.00115	< 0.00127	< 0.00115	12	0.8	100	1.6	2,300	2.2	0.03	0.17	
Bromobenzene **	< 0.0143	< 0.0159	< 0.0144	630 [a]	630 [aJ]	16,000 [a]	810 [d]	4,100 [a]	22 [a]	0.66 [a]	4.3	
Bromodichloromethane	< 0.00286	< 0.00318	< 0.00287	10	3,000	92	3,000	2,000	3,000	0.6	0.6	
Bromoform	< 0.0286	< 0.0318	< 0.0287	81	53	720	100	16,000	140	0.8	0.8	
Bromomethane	< 0.0143	< 0.0159	< 0.0144	110 [b]	10 [bx]	2,900 [b]	15 [b]	1,000 [b]	3.9 [b]	0.2 [b]	1.2	
n-Butylbenzene **	< 0.0143	< 0.0159	< 0.0144	3,900 [a]	----[c]	100,000 [a]	----[c]	20,000 [a]	----[c]	52 [a]	87 [d]	
sec-Butylbenzene *	< 0.0143	< 0.0159	< 0.0144	780 [b]	42 [d]	20,000 [b]	42 [d]	20,000 [b]	42 [d]	15 [b]	75	
tert-Butylbenzene *	< 0.00573	< 0.00635	< 0.00575	780 [b]	77 [d]	20,000 [b]	77 [d]	20,000 [b]	77 [d]	6.5 [b]	33	
Carbon tetrachloride	< 0.00573	< 0.00635	< 0.00575	5 [e]	0.3 [e]	44	0.64	410	0.90	0.07	0.33	
Chlorobenzene	< 0.00286	< 0.00318	< 0.00287	1,600 [b]	130 [bx]	41,000	210	4,100	1.3	1	6.5	
Chlorodibromomethane	< 0.00286	< 0.00318	< 0.00287	1,600 [b]	1,300 [d]	41,000	1,300	41,000	1,300	0.4	0.4	
Chloroethane **	< 0.00573	< 0.00635	< 0.00575	---[c]	1,500 [dJ]	----[c]	1,500 [d]	20,000 [a]	39 [a]	---[c,h]	----[c,h]	
Chloroform	< 0.00286	< 0.00318	< 0.00287	100 [e]	0.3 [e]	940 [e]	0.54 [e]	2,000 [b]	0.76 [e]	0.6	2.9	
Chloromethane **	< 0.0143	< 0.0159	< 0.0144	---[c]	110 [aJ]	----[c]	180 [a]	---[c]	5 [a]	---[c,h]	----[c,h]	
2-Chlorotoluene	< 0.00286	< 0.00318	< 0.00287	----	----	----	----	----	----	----	----	
4-Chlorotoluene	< 0.00573	< 0.00635	< 0.00575	----	----	----	----	----	----	----	----	
1,2-Dibromo-3-Chloropropane	< 0.0286	< 0.0318	< 0.0287	0.46 [e]	11 [bx]	4 [e]	17 [b]	89 [e]	0.11 [b]	0.002	0.02	
1,2-Dibromoethane	< 0.00286	< 0.00318	< 0.00287	0.32 [e]	0.06 [e]	2.9 [e]	0.12 [e]	62 [e]	0.16	0.0004	0.004	0.005
Dibromomethane	< 0.00573	< 0.00635	< 0.00575	----	----	----	----	----	----	----	----	
1,2-Dichlorobenzene	< 0.00573	< 0.00635	< 0.00575	7,000 [b]	560 [dx]	180,000 [b]	560 [d]	18,000 [b]	310 [b]	17	43	
1,3-Dichlorobenzene *	< 0.00573	< 0.00635	< 0.00575	70 [b]	570 [d]	1,800 [b]	570 [d]	180 [b]	570 [d]	0.2 [b]	1.0	
1,4-Dichlorobenzene	< 0.00573	< 0.00635	< 0.00575	---[c]	11,000 [bx]	----[c]	17,000 [b]	----[c]	340 [b]	2	11	
Dichlorodifluoromethane **	< 0.00286	< 0.00318	< 0.00287	16,000 [a]	200 [aJ]	410,000 [a]	310 [a]	160,000 [a]	20 [a]	43 [a]	220	
1,1-Dichloroethane	< 0.00286	< 0.00318	< 0.00287	7,800 [b]	1,300 [bx]	200,000 [b]	1,700 [d]	200,000 [b]	130 [b]	23 [b]	110	
1,2-Dichloroethane	< 0.00286	< 0.00318	< 0.00287	7 [e]	0.4 [e]	63 [e]	0.70 [e]	1,400 [e]	0.99 [e]	0.02	0.1	
1,1-Dichloroethene	< 0.00286	< 0.00318	< 0.00287	3,900 [b]	290 [bx]	100,000 [b]	470 [b]	10,000 [b]	3.0 [b]	0.06	0.3	
cis-1,2-Dichloroethene	< 0.00286	< 0.00318	< 0.00287	780 [b]	1,200 [d]	20,000 [b]	1,200 [d]	20,000 [b]	1,200 [d]	0.4	1.1	
trans-1,2-Dichloroethene	< 0.00573	< 0.00635	< 0.00575	1,600 [b]	3,100 [d]	41,000 [b]	3,100 [d]	41,000 [b]	3,100 [d]	0.7	3.4	
1,2-Dichloropropane	< 0.00573	< 0.00635	< 0.00575	9 [e]	15 [bx]	84 [e]	23 [b]	1,800 [e]	0.50 [b]	0.03	0.15	
1,1-Dichloropropene	< 0.00286	< 0.00318	< 0.00287	----	----	----	----	----	----	----	----	
1,3-Dichloropropane **	< 0.00573	< 0.00635	< 0.00575	1,600 [a]	---[c]	41,000 [a]	---[c]	41,000 [a]	----[c]	0.83 [a]	0.83	
cis-1,3-Dichloropropene	< 0.00286	< 0.00318	< 0.00287	----	----	----	----	----	----	----	----	
trans-1,3-Dichloropropene	< 0.00573	< 0.00635	< 0.00575	----	----	----	----	----	----	----	----	
1,3-Dichloropropene ***	< 0.00859	< 0.00953	< 0.00862	6.4 [e]	1.1 [ex]	57 [e]	2.1 [e]	1,200 [e]	0.39 [b]	0.004 [e]	0.02	0.005
2,2-Dichloropropane	< 0.00286	< 0.00318	< 0.00287	----	----	----	----	----	----	----	----	
Di-isopropyl ether **	< 0.00115	< 0.00127	< 0.00115	---[c]	470 [dJ]	---[c]	470 [d]	---[c]	21 [a]	---[c,h]	---[c,h]	
Ethylbenzene	< 0.00286	< 0.00318	< 0.00287	7,800 [b]	400 [dx]	200,000 [b]	400 [d]	20,000 [b]	58 [b]	13	19	
Hexachloro-1,3-butadiene **	< 0.0286	< 0.0318	< 0.0287	78 [a]	----[c]	2,000 [a]	----[c]	200 [a]	----[c]	2.2 [a]	11	
Isopropylbenzene **	< 0.00286	< 0.00318	< 0.00287	7,800 [a]	500 [aJ]	200,000 [a]	800 [a]	82,000 [a]	52 [a]	91 [a]	400 [d]	
p-Isopropyltoluene	< 0.00573	< 0.00635	< 0.00575	----	----	----	----	----	----	----	----	
2-Butanone (MEK) **	0.0351 B	0.0474 B	0.0214 B J	47,000 [a]	25,000 [dJ]	1,000,000 [a]	25,000 [dJ]	120,000 [a]	730 [a]	17 [a]	17	
Methylene Chloride	< 0.0286	< 0.0318	< 0.0287 J3	85 [e]	13 [e]	760 [e]	24 [e]	12,000 [b]	34 [e]	0.02 [a]	0.2	
4-Methyl-2-pentanone (MIBK) **	< 0.0286	< 0.0318	< 0.0287	6,300 [a]	3,100 [dJ]	160,000 [a]	3,100 [d]	160,000 [a]	340 [a]	2.5 [a]	2.5	
Methyl tert-butyl ether	< 0.00115	< 0.00127	< 0.00115	780 [b]	8,800 [dx]	20,000 [b]	8,800 [d]	2,000 [b]	140 [b]	0.32	0.32	
Naphthalene	< 0.0143	< 0.0159	< 0.0144	1,600 [b]	170 [bx]	41,000 [b]	270 [b]	4,100 [b]	1.8 [b]	12 [b]	18	
n-propylbenzene **	< 0.00573	< 0.00635	< 0.00575	7,800 [a]	300 [dJ]	200,000 [a]	300 [d]	20,000 [a]	91 [a]	31 [a]	120 [d]	
Styrene	< 0.0143	< 0.0159	< 0.0144	16,000 [b]	1,500 [dx]	410,000 [b]	1,500 [d]	41,000 [b]	430 [b]	4	18	
1,1,1,2-Tetrachloroethane	< 0.00286	< 0.00318	< 0.00287	2,300 [a]	----[c]	61,000 [a]	---[c]	18,000 [a]	----[c]	3.4 [a]	17	
1,1,2,2-Tetrachloroethane **	< 0.00286	< 0.00318	< 0.00287	3.2 [b]	0.62 [bJ]	27 [b]	1.2 [b]	620 [b]	1.7 [b]	0.0035 [b]	0.0035	
1,1,2-Trichlorotrifluoroethane 76-13-1	< 0.00286	< 0.00318	< 0.00287	1,000,000 [a]	1,000 [dJ]	1,000,000 [a]	1,000 [d]	610,000 [a]	350 [a]	450 [d]	450 [d]	
Tetrachloroethene	< 0.00286	< 0.00318	< 0.00287	12 [e]	11 e	110 e	20 e	2,400 e	28 e	0.06	0.3	
Toluene	< 0.00573	< 0.00635	< 0.00575	16,000 [b]	650 [dx]	410,000 [b]	650 [d]	410,000 [b]	42 [b]	12	29	
1,2,3-Trichlorobenzene **	< 0.0143	< 0.0159	< 0.0144	63 [a]	---[c]	1,600 [a]	---[c]	1,600 [a]	----[c]	0.46 [a]	2.3	
1,2,4-Trichlorobenzene	< 0.0143	< 0.0159	< 0.0144	780 [b]	3,200 [bx]	20,000 [b]	3,200 [d]	2,000 [b]	920 [b]	5	53	
1,1,1-Trichloroethane	< 0.00286	< 0.00318	< 0.00287	---[c]	1,200 [d]	----[c]	1,200 [d]	---[c]	1,200 [d]	2	9.6	
1,1,2-Trichloroethane	< 0.00286	< 0.00318	< 0.00287	310 [b]	1,800 [d]	8,200 [b]	1,800 [d]	8,200 [b]	1,800 [d]	0.02	0.3	
Trichloroethene	< 0.00115	< 0.00127	< 0.00115	58 [e]	5 [e]	520 [e]	8.9 [e]	1,200 [b]	12 [e]	0.06	0.3	
Trichlorofluoromethane **	< 0.00286	< 0.00318	< 0.00287	23,000 [a]	870 [aJ]	610,000 [a]	1,400 [a]	140,000 [a]	13 [a]	34 [a]	170	
1,2,3-Trichloropropane **	< 0.0143	< 0.0159	< 0.0144	0.021 [b]	3.2 [aJ]	0.19 [b]	5.0 [a]	4.1 [b]	0.32 [a]	0.000017 [b]	0.000017	
1,2,4-Trimethylbenzene **	< 0.00573	< 0.00635	< 0.00575	---[c]	87 [aJ]	----[c]	140 [a]	---[c]	8.9 [a]	---[c,h]	---[c,h]	
1,2,3-Trimethylbenzene **	< 0.00573 J4	< 0.00635 J4	< 0.00575 J4	---[c]	66 [aJ]	----[c]	110 [a]	---[c]	6.9 [a]	----[c]	---[c]	
1,3,5-Trimethylbenzene **	< 0.00573	< 0.00635	< 0.00575	780 [a]	---[c]	20,000 [a]	----[c]	20,000 [a]	0.79 [a]	2.0 [a]	10	
Vinyl chloride	< 0.00286	< 0.00318	< 0.00287	0.46 [e]	0.28 [e]	7.9 [e]	1.1 [e]	170 [e]	1.1 [b]	0.01	0.07	
Xylenes, Total	< 0.00745	< 0.00826	< 0.00747	16,000 [b]	320 [dx]	410,000 [b]	320 [d]	41,000 [b]	5.6 [b]	150	150	

NOTES:

Indicates most stringent objective.

* - Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit, Remediation Objectives for Non-TACO Compounds, October 1, 2004.

** - Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit, Remediation Objectives for Non-TACO Compounds, Revised October 30, 2012.

*** - Reported analytical result is the summation of *cis* + *trans* components.

--- No objective available.

a - Soil remediation objective based on human health criteria only.

b - Calculated values correspond to a target hazard quotient of 1.

B - The same analyte is found in the associated blank.

----[c] - No toxicity criteria for this route of exposure.

d - Soil saturation concentration (Csat) = the concentration at which absorptive limits of the soil particles, the solubility limits of the available soil moisture, and saturation of soil pore air have been reached. Above the soil saturation concentration, the assumptions regarding vapor transport to air and/or dissolved phase transport to groundwater (for chemicals which are liquid at ambient soil temperatures) have been violated, and alternative modeling approaches are required.

e - Calculated values correspond to a cancer risk level of 1 in 1,000,000.

---- [g] - Chemical-specific properties are such that this route is not of concern at any soil contaminant concentration

h - Although lacking a health-based groundwater ingestion objective, the inhalation RfC or URF indicates that this chemical could represent a potential threat through volatilization during indoor groundwater use. Contact the Toxicity Assessment Unit for assistance in evaluating this pathway.

i - The remediation objectives for this receptor must also include the Construction Worker inhalation objective.

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

J3 - The associated batch QC was outside the established quality control range for precision.

J4 - The associated batch QC was outside the established quality control range for accuracy.

x - The remediation objectives for these chemicals must also include the construction worker inhalation objective in Appendix B, Table B.

ADL - Acceptable Detection Limit.

mg/kg - milligrams per kilogram reported as dry weight. Also referred to as parts per million (ppm).

Table 4a Soil Analytical Results - Semi-volatile Organic Compounds

Morgan Street PSI
Morgan Street and 1st Street. Shelbyville, Illinois
Updated April 27, 2020, Bodine Environmental Services, Inc.
Project #127051

Sample ID	B6-1	B6-2	B7-1	B7-2							Soil Component Groundwater Ingestion		
Sample Date	03/25/2020	03/25/2020	03/25/2020	03/25/2020	Residential		Industrial-Commercial		Construction Worker				
Laboratory ID	L1203485-09	L1203485-10	L1203485-11	L1203485-12	Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	ADL
Sample Depth (feet)	4.5	14.5	6.0	10.5			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg							
Base/Neutral Extractables													
SW-846 8270C													
Compound Name													
Acenaphthene	**0.00798 J**	< 0.0393	< 0.0382	**0.0109 J**	4,700	----[c]	120,000	----[c]	120,000	----[c]	570	2,900	
Acenaphthylene **	< 0.0401	< 0.0393	< 0.0382	< 0.0481	2,300 [a]	----[c]	61,000 [a]	----[c]	61,000 [a]	----[c]	85 [a]	420	
Anthracene	**0.0171 J**	< 0.0393	< 0.0382	**0.0218 J**	23,000	----[c]	610,000	----[c]	610,000	----[c]	12,000	59,000	
Benzidene **	< 0.401	< 0.393	< 0.382	< 0.481	0.003 [b]	0.009 [b,j]	0.02 [b]	0.02 [b]	0.54 [b]	0.02 [b]	0.000002 [b]	0.000002	
Benzo (a) anthracene	**0.0635**	< 0.0393	< 0.0382	**0.0235 J**	0.9	----[c]	8	----[c]	170	----[c]	2	8	
Benzo (b) fluoranthene	**0.0686**	< 0.0393	< 0.0382	**0.0152 J**	0.9	----[c]	8	----[c]	170	----[c]	5	25	
Benzo (k) fluoranthene	**0.0254 J**	< 0.0393	< 0.0382	< 0.0481	9	----[c]	78	----[c]	1,700	----[c]	49	250	
Benzo (g,h,i) perylene **	**0.0293 J**	< 0.0393	< 0.0382	< 0.0481	2,300 [a]	----[c]	61,000 [a]	----[c]	61,000 [a]	----[c]	27,000 [a]	130,000	
Benzo (a) pyrene	**0.0566**	< 0.0393	< 0.0382	**0.016 J**	0.09	----[c]	0.8	----[c]	17	----[c]	8	82	
Bis (2-Chloroethoxy) methane	< 0.401	< 0.393	< 0.382	< 0.481	----	----	----	----	----	----	----	----	
Bis (2-Chloroethyl) ether **	< 0.401	< 0.393	< 0.382	< 0.481	0.6 [e]	0.2 [e]	5	0.47	75	0.66	0.0004	0.0004	0.66
4-Bromophenyl-phenylether	< 0.401	< 0.393	< 0.382	< 0.481	----	----	----	----	----	----	----	----	
2-Chloronaphthalene **	< 0.0401	< 0.0393	< 0.0382	< 0.0481	6,300 [a]	----[c]	160,000 [a]	----[c]	41,000 [a]	----[c]	49 [a]	240	
4-Chlorophenyl-phenylether	< 0.401	< 0.393	< 0.382	< 0.481	----	----	----	----	----	----	----	----	
Chrysene	**0.0513**	< 0.0393	< 0.0382	**0.0154 J**	88	----[c]	780	----[c]	17,000	----[c]	160	800	
Dibenzo (a,h) anthracene	< 0.0401	< 0.0393	< 0.0382	< 0.0481	0.09	----[c]	0.8	----[c]	17	----[c]	2	7.6	
3,3-Dichlorobenzidene	< 0.401	< 0.393	< 0.382	< 0.481	1 [e]	----[c]	13	----[c]	280	----[c]	0.007	0.033	1.3
2,4-Dinitrotoluene	< 0.401	< 0.393	< 0.382	< 0.481	0.9 [e]	----[c]	8.4 [e]	----[c]	180 [e]	----[c]	0.0008 [e]	0.250	
2,6-Dinitrotoluene	< 0.401	< 0.393	< 0.382	< 0.481	0.9 [e]	----[c]	8.4 [e]	----[c]	180 [e]	----[c]	0.0007 [e]	0.260	
Fluoranthene	**0.104**	< 0.0393	< 0.0382	**0.0494**	3,100	----[c]	82,000	----[c]	82,000	----[c]	4,300	21,000	
Fluorene	< 0.0401	< 0.0393	< 0.0382	**0.0175 J**	3,100	----[c]	82,000	----[c]	82,000	----[c]	560	2,800	
Hexachlorobenzene	< 0.401	< 0.393	< 0.382	< 0.481	0.4 [e]	1 [e]	4	18	78	2.6	2	11	
Hexachloro-1,3-butadiene **	< 0.401	< 0.393	< 0.382	< 0.481	78 [a]	----[c]	2,000 [a]	----[c]	200 [a]	----[c]	2.2 [a]	11	
Hexachlorocyclopentadiene	< 0.401	< 0.393	< 0.382	< 0.481	550 [b]	10 [b,x]	14,000	16	14,000	1.1	400	2,200	
Hexachloroethane	< 0.401	< 0.393	< 0.382	< 0.481	78 [b]	----[c]	2,000	----[c]	2,000	----[c]	0.5	2.6	
Indeno (1,2,3-cd) pyrene	**0.0384 J**	< 0.0393	< 0.0382	< 0.0481	0.9	----[c]	8	----[c]	170	----[c]	14	69	
Isophorone	< 0.401	< 0.393	< 0.382	< 0.481	15,600 [b]	4,600 [d]	410,000	4,600	410,000	4,600	8	8	
Naphthalene	< 0.0401	< 0.0393	< 0.0382	**0.0135 J**	1,600 [b]	170 [b,x]	41,000 [b]	270 [b]	4,100 [b]	1.8 [b]	12 [b]	18	
Nitrobenzene	< 0.401	< 0.393	< 0.382	< 0.481	39 [b]	92 [b,x]	1,000	140	1,000	9.4	0.1	0.1	0.26
n-Nitrosodimethylamine **	< 0.401	< 0.393	< 0.382	< 0.481	0.013 [b]	0.012 [b,j]	0.11 [b]	0.023 [b]	1.6 [a]	2	0.000007 [b]	0.000007	
n-Nitrosodiphenylamine	< 0.401	< 0.393	< 0.382	< 0.481	130 [e]	----[c]	1,200	----[c]	25,000	----[c]	1	5.6	
n-Nitroso-n-propylamine	< 0.401	< 0.393	< 0.382	< 0.481	0.09 [e]	----[c]	0.8	----[c]	18	----[c]	0.00005	0.00005	0.0018
Phenanthrene **	**0.0729**	< 0.0393	< 0.0382	**0.0776**	2,300 [a]	----[c]	61,000 [a]	----[c]	61,000 [a]	----[c]	210 [a]	1,100	
Benzylbutyl phthalate	< 0.401	< 0.393	< 0.382	< 0.481	16,000 [b]	930 [d]	410,000	930	410,000	930	930	930	
Bis (2-Ethylhexyl) phthalate	< 0.401	< 0.393	< 0.382	< 0.481	46 [e]	31,000 [d]	410	31,000	4,100	31,000	3,600	31,000	
Di-n-Butyl phthalate	< 0.401	< 0.393	< 0.382	< 0.481	7,800 [b]	2,300 [d]	200,000 [b]	2,300 [d]	200,000 [b]	2,300 [d]	2,300 [d]	2,300 [d]	
Diethyl phthalate	< 0.401	< 0.393	< 0.382	< 0.481	63,000 [b]	2,000 [d]	1,000,000	2,000	1,000,000	2,000	470	470	
Dimethyl phthalate **	< 0.401	< 0.393	< 0.382	< 0.481	----[c]	----[c]	----[c]	----[c]	20,000 [a]	----[c]	----[c]	----[c]	
Di-n-octyl phthalate	< 0.401	< 0.393	< 0.382	< 0.481	1,600 [b]	10,000 [d]	41,000	10,000	4,100	10,000	10,000	10,000	
Pyrene	**0.0826**	< 0.0393	< 0.0382	**0.0382 J**	2,300 [b]	----[c]	61,000 [b]	----[c]	61,000 [b]	----[c]	4,200 [b]	21,000	
1,2,4-Trichlorobenzene	< 0.401	< 0.393	< 0.382	< 0.481	780 [b]	3,200 [b,x]	20,000	3,200	2,000	920	6	53	
4-Chloro-3-Methylphenol	< 0.401	< 0.393	< 0.382	< 0.481	----	----	----	----	----	----	----	----	
2-Chlorophenol	< 0.401	< 0.393	< 0.382	< 0.481	390 [b]	53,000 [d]	10,000	53,000	10,000	53,000	4	20	
2,4-Dichlorophenol	< 0.401	< 0.393	< 0.382	< 0.481	230 [b]	----[c]	6,100	----[c]	610	----[c]	1	1	
2,4-Dimethylphenol	< 0.401	< 0.393	< 0.382	< 0.481	1,600 [b]	----[c]	41,000	----[c]	41,000	----[c]	9	9	
4,6-Dinitro-2-methylphenol **	< 0.401	< 0.393	< 0.382	< 0.481	6.3 [a]	----[c]	160 [a]	----[c]	160 [a]	----[c]	pH	pH	
2,4-Dinitrophenol	< 0.401	< 0.393	< 0.382	< 0.481	160 [b]	----[c]	4,100	----[c]	410	----[c]	0.2	0.2	3.3
2-Nitrophenol	< 0.401	< 0.393	< 0.382	< 0.481	----	----	----	----	----	----	----	----	
4-Nitrophenol	< 0.401	< 0.393	< 0.382	< 0.481	----	----	----	----	----	----	----	----	
Pentachlorophenol	< 0.401	< 0.393	< 0.382	< 0.481	3 [e,j]	----[c]	24	----[c]	520	----[c]	0.03	0.14	
Phenol	< 0.401	< 0.393	< 0.382	< 0.481	23,000 [b]	----[c]	610,000	----[c]	61,000	----[c]	100	100	
2,4,6-Trichlorophenol	< 0.401	< 0.393	< 0.382	< 0.481	58 [e]	200 [e]	520	390	11,000	540	0.2	0.77	0.66

NOTES:

Indicates most stringent objective.

* - Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit, Remediation Objectives for Non-TACO Compounds, October 1, 2004.

** - Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit, Remediation Objectives for Non-TACO Compounds, Revised October 30, 2012.

---- No objective available.

a - Soil remediation objective based on human health criteria only.

b - Calculated values correspond to a target hazard quotient of 1.

----[c] - No toxicity criteria for this route of exposure.

d - Soil saturation concentration (Csat) = the concentration at which absorptive limits of the soil particles, the solubility limits of the available soil moisture, and saturation of soil pore air have been reached. Above the soil saturation concentration, the assumptions regarding vapor transport to air and/or dissolved phase transport to groundwater (for chemicals which are liquid at ambient soil temperatures) have been violated, and alternative modeling approaches are required.

e - calculated values correspond to a cancer risk level of 1 in 1,000,000.

i - The remediation objectives for this receptor must also include the Construction Worker inhalation objective.

j - Ingestion soil remediation objective adjusted by a factor of 0.5 to account for dermal route.

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

J3 - The associated batch QC was outside the established quality control range for precision.

J4 - The associated batch QC was outside the established quality control range for accuracy.

x - The remediation objectives for these chemicals must also include the construction worker inhalation objective in Appendix B, Table B.

ADL - Acceptable Detection Limit.

mg/kg - milligrams per kilogram reported as dry weight. Also referred to as parts per million (ppm).

pH - See pH specific worksheet for objective.

Table 4b Soil Analytical Results - Semi-volatile Organic Compounds

Morgan Street PSI
Morgan Street and 1st Street. Shelbyville, Illinois
Updated April 27, 2020, Bodine Environmental Services, Inc.
Project #127051

Sample ID	B8-1	B8-2	B9							Soil Component Groundwater Ingestion		
Sample Date	03/25/2020	03/25/2020	03/25/2020	Residential		Industrial-Commercial		Construction Worker				
Laboratory ID	L1203485-13	L1203485-14	L1203485-15	Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	ADL
Sample Depth (feet)	5.5	10.5	10.0			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg							
Base/Neutral Extractables												
SW-846 8270C												
Compound Name												
Acenaphthene	< 0.0382	< 0.0423	< 0.0383	4,700	----[c]	120,000	----[c]	120,000	----[c]	570	2,900	
Acenaphthylene **	< 0.0382	< 0.0423	< 0.0383	2,300 [a]	----[c]	61,000 [a]	----[c]	61,000 [a]	----[c]	85 [e]	420	
Anthracene	< 0.0382	< 0.0423	< 0.0383	23,000	----[c]	610,000	----[c]	610,000	----[c]	12,000	59,000	
Benzidene **	< 0.382	< 0.423	< 0.383	0.003 [b]	0.009 [b,j]	0.02 [b]	0.02 [b]	0.54 [b]	0.02 [b]	0.000002 [b]	0.000002	
Benzo (a) anthracene	< 0.0382	< 0.0423	< 0.0383	0.9	----[c]	8	----[c]	170	----[c]	2	8	
Benzo (b) fluoranthene	< 0.0382	< 0.0423	< 0.0383	0.9	----[c]	8	----[c]	170	----[c]	5	25	
Benzo (k) fluoranthene	< 0.0382	< 0.0423	< 0.0383	9	----[c]	78	----[c]	1,700	----[c]	49	250	
Benzo (g,h,i) perylene **	< 0.0382	< 0.0423	< 0.0383	2,300 [a]	----[c]	61,000 [a]	----[c]	61,000 [a]	----[c]	27,000 [a]	130,000	
Benzo (a) pyrene	< 0.0382	< 0.0423	< 0.0383	0.09	----[c]	0.8	----[c]	17	----[c]	8	82	
Bis (2-Chloroethoxy) methane	< 0.382	< 0.423	< 0.383	----	----	----	----	----	----	----	----	
Bis (2-Chloroethyl) ether **	< 0.382	< 0.423	< 0.383	0.6 [e]	0.2 [e]	5	0.47	75	0.66	0.0004	0.0004	0.66
4-Bromophenyl-phenylether	< 0.382	< 0.423	< 0.383	----	----	----	----	----	----	----	----	
2-Chloronaphthalene **	< 0.0382	< 0.0423	< 0.0383	6,300 [a]	----[c]	160,000 [a]	----[c]	41,000 [a]	----[c]	49 [a]	240	
4-Chlorophenyl-phenylether	< 0.382	< 0.423	< 0.383	----	----	----	----	----	----	----	----	
Chrysene	< 0.0382	< 0.0423	< 0.0383	88	----[c]	780	----[c]	17,000	----[c]	160	800	
Dibenzo (a,h) anthracene	< 0.0382	< 0.0423	< 0.0383	0.09	----[c]	0.8	----[c]	17	----[c]	2	7.6	
3,3-Dichlorobenzidene	< 0.382	< 0.423	< 0.383	1 [e]	----[c]	13	----[c]	280	----[c]	0.007	0.033	1.3
2,4-Dinitrotoluene	< 0.382	< 0.423	< 0.383	0.9 [e]	----[c]	8.4 [e]	----[c]	180 [e]	----[c]	0.0008 [e]	0.250	
2,6-Dinitrotoluene	< 0.382	< 0.423	< 0.383	0.9 [e]	----[c]	8.4 [e]	----[c]	180 [e]	----[c]	0.0007 [e]	0.260	
Fluoranthene	< 0.0382	< 0.0423	< 0.0383	3,100	----[c]	82,000	----[c]	82,000	----[c]	4,300	21,000	
Fluorene	< 0.0382	< 0.0423	< 0.0383	3,100	----[c]	82,000	----[c]	82,000	----[c]	560	2,800	
Hexachlorobenzene	< 0.382	< 0.423	< 0.383	0.4 [e]	1 [e]	4	18	78	2.6	2	11	
Hexachloro-1,3-butadiene **	< 0.382	< 0.423	< 0.383	78 [a]	----[c]	2,000 [a]	----[c]	200 [a]	----[c]	2.2 [a]	11	
Hexachlorocyclopentadiene	< 0.382	< 0.423	< 0.383	550 [b]	10 [b,x]	14,000	16	14,000	1.1	400	2,200	
Hexachloroethane	< 0.382	< 0.423	< 0.383	78 [b]	----[c]	2,000	----[c]	2,000	----[c]	0.5	2.6	
Indeno (1,2,3-cd) pyrene	< 0.0382	< 0.0423	< 0.0383	0.9	----[c]	8	----[c]	170	----[c]	14	69	
Isophorone	< 0.382	< 0.423	< 0.383	15,600 [b]	4,600 [d]	410,000	4,600	410,000	4,600	8	8	
Naphthalene	< 0.0382	< 0.0423	< 0.0383	1,600 [b]	170 [b,x]	41,000 [b]	270 [b]	4,100 [b]	1.8 [a]	12 [b]	18	
Nitrobenzene	< 0.382	< 0.423	< 0.383	39 [b]	92 [b,x]	1,000	140	1,000	9.4	0.1	0.1	0.26
n-Nitrosodimethylamine **	< 0.382	< 0.423	< 0.383	0.013 [b]	0.012 [b,j]	0.11 [b]	0.023 [b]	1.6 [a]	2	0.000007 [b]	0.000007	
n-Nitrosodiphenylamine	< 0.382	< 0.423	< 0.383	130 [a]	----[c]	1,200	----[c]	25,000	----[c]	1	5.6	
n-Nitroso-n-propylamine	< 0.382	< 0.423	< 0.383	0.09 [a]	----[c]	0.8	----[c]	18	----[c]	0.00005	0.00005	0.0018
Phenanthrene **	0.0134 J	< 0.0423	< 0.0383	2,300 [a]	----[c]	61,000 [a]	----[c]	61,000 [a]	----[c]	210 [a]	1,100	
Benzylbutyl phthalate	< 0.382	< 0.423	< 0.383	16,000 [b]	930 [d]	410,000	930	410,000	930	930	930	
Bis (2-Ethylhexyl) phthalate	< 0.382	< 0.423	< 0.383	46 [e]	31,000 [d]	410	31,000	4,100	31,000	3,600	31,000	
Di-n-Butyl phthalate	< 0.382	< 0.423	< 0.383	7,800 [b]	2,300 [d]	200,000 [b]	2,300 [d]	200,000 [b]	2,300 [d]	2,300 [d]	2,300 [d]	
Diethyl phthalate	< 0.382	< 0.423	< 0.383	63,000 [b]	2,000 [d]	1,000,000	2,000	1,000,000	2,000	470	470	
Dimethyl phthalate **	< 0.382	< 0.423	< 0.383	----[c]	----[c]	----[c]	----[c]	20,000 [a]	----[c]	----[c]	----[c]	
Di-n-octyl phthalate	< 0.382	< 0.423	< 0.383	1,600 [b]	10,000 [d]	41,000	10,000	4,100	10,000	10,000	10,000	
Pyrene	< 0.0382	< 0.0423	< 0.0383	2,300 [b]	----[c]	61,000 [b]	----[c]	61,000 [b]	----[c]	4,200 [b]	21,000	
1,2,4-Trichlorobenzene	< 0.382	< 0.423	< 0.383	780 [b]	3,200 [b,x]	20,000	3,200	2,000	920	5	53	
4-Chloro-3-Methylphenol	< 0.382	< 0.423	< 0.383	----	----	----	----	----	----	----	----	
2-Chlorophenol	< 0.382	< 0.423	< 0.383	390 [b]	53,000 [d]	10,000	53,000	10,000	53,000	4	20	
2,4-Dichlorophenol	< 0.382	< 0.423	< 0.383	230 [b]	----[c]	6,100	----[c]	610	----[c]	1	1	
2,4-Dimethylphenol	< 0.382	< 0.423	< 0.383	1,600 [b]	----[c]	41,000	----[c]	41,000	----[c]	9	9	
4,6-Dinitro-2-methylphenol **	< 0.382	< 0.423	< 0.383	6.3 [a]	----[c]	160 [a]	----[c]	160 [a]	----[c]	pH	pH	
2,4-Dinitrophenol	< 0.382	< 0.423	< 0.383	160 [b]	----[c]	4,100	----[c]	410	----[c]	0.2	0.2	3.3
2-Nitrophenol	< 0.382	< 0.423	< 0.383	----	----	----	----	----	----	----	----	
4-Nitrophenol	< 0.382	< 0.423	< 0.383	----	----	----	----	----	----	----	----	
Pentachlorophenol	< 0.382	< 0.423	< 0.383	3 [e,j]	----[c]	24	----[c]	520	----[c]	0.03	0.14	
Phenol	< 0.382	< 0.423	< 0.383	23,000 [b]	----[c]	610,000	----[c]	61,000	----[c]	100	100	
2,4,6-Trichlorophenol	< 0.382	< 0.423	< 0.383	58 [e]	200 [e]	520	390	11,000	540	0.2	0.77	0.66

NOTES:

Indicates most stringent objective.

Shaded - Indicates compound concentration above applicable remediation objective.

* - Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit, Remediation Objectives for Non-TACO Compounds, October 1, 2004.

** - Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit, Remediation Objectives for Non-TACO Compounds, Revised October 30, 2012.

---- No objective available.

a - Soil remediation objective based on human health criteria only.

b - Calculated values correspond to a target hazard quotient of 1.

----[c] - No toxicity criteria for this route of exposure.

d - Soil saturation concentration (Csat) = the concentration at which absorptive limits of the soil particles, the solubility limits of the available soil moisture, and saturation of soil pore air have been reached. Above the soil saturation concentration, the assumptions regarding vapor transport to air and/or dissolved phase transport to groundwater (for chemicals which are liquid at ambient soil temperatures) have been violated, and alternative modeling approaches are required.

e - calculated values correspond to a cancer risk level of 1 in 1,000,000.

i - The remediation objectives for this receptor must also include the Construction Worker inhalation objective.

j - Ingestion soil remediation objective adjusted by a factor of 0.5 to account for dermal route.

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

x - The remediation objectives for these chemicals must also include the construction worker inhalation objective in Appendix B, Table B.

ADL - Acceptable Detection Limit.

mg/kg - milligrams per kilogram reported as dry weight. Also referred to as parts per million (ppm).

pH - See pH specific worksheet for objective.

Table 5a Soil Analytical Results - Lead

Morgan Street PSI
Morgan Street and 1st Street. Shelbyville, Illinois
Updated April 27, 2020, Bodine Environmental Services, Inc.
Project #127051

Sample ID	B1-1	B1-2	B2-1	B2-2		Soil Component of Groundwater Ingestion (SCGWI)		pH Specific Soil Remediation Objectives for the SCGWI Pathway for Class I Groundwater		
Sample Date	03/25/2020	03/25/2020	03/25/2020	03/25/2020	Residential					
Sample Depth (feet)	10.0	15.5	6.0	17.5	Ingestion	Class I	Class II			
Laboratory ID	L1203485-01	L1203485-02	L1203485-03	L1203485-04						
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/L	mg/kg	mg/kg	mg/kg
Inorganics (Metals)								pH Range		
SW-846 6010B								7.25 - 7.74	8.25 - 8.74	8.75 - 9.0
Lead	6.61	6.67	7.59	7.68	400	0.0075[m]	0.1[m]	107	107	282
SW-846 9045D										
pH (reported as unitless)	7.52 T8	8.8 T8	8.9 T8	8.49 T8	----	----	----	----	----	----

Sample ID	B3-1	B3-2	B4	B5		Soil Component of Groundwater Ingestion (SCGWI)		pH Specific Soil Remediation Objectives for the SCGWI Pathway for Class I Groundwater		
Sample Date	03/25/2020	03/25/2020	03/25/2020	03/25/2020	Residential					
Sample Depth (feet)	7.0	9.5	14.5	14.5	Ingestion	Class I	Class II			
Laboratory ID	L1203485-05	L1203485-06	L1203485-07	L1203485-08						
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/L	mg/kg	mg/kg	mg/kg
Inorganics (Metals)								pH Range		
SW-846 6010B								7.25 - 7.74	7.75 - 8.24	8.25 - 8.74
Lead	8.29	24	24.7	27.8	400	0.0075[m]	0.1[m]	107	107	107
SW-846 9045D										
pH (reported as unitless)	8.54 T8	8.66 T8	8.11 T8	7.5 T8	----	----	----	----	----	----

NOTES:
m - The person conducting the remediation has the option to use: 1) TCLP or SPLP test results to compare with the remediation objectives listed in this Table; 2) where applicable, the total amount of contaminant in the soil sample results compare with the pH specific remediation objectives listed in Appendix B, Table C or D of this Part (see Section 742.510); or 3) the appropriate background value listed in Appendix A, Table G. If the person conducting the remediation wishes to calculate soil remediation objectives based on background concentrations, this should be done in accordance with Subpart D of this Part.
T8 - Samples received past/too close to holding time expiration.
---- No objective available.
mg/kg - milligrams per kilogram reported as dry weight. Also referred to as parts per million (ppm).

Table 5b Soil Analytical Results - Inorganics (metals)

Morgan Street PSI
Morgan Street and 1st Street. Shelbyville, Illinois
Updated April 27, 2020, Bodine Environmental Services, Inc.
Project #127051

Sample ID	B6-1	B6-2	B7-1	B7-2				Soil Component of Groundwater Ingestion (SCGWI)		pH Specific Soil Remediation Objectives for the SCGWI Pathway for Class I Groundwater		
Sample Date	03/25/2020	03/25/2020	03/25/2020	03/25/2020	Residential	Construction Worker						
Laboratory ID	L1203485-09	L1203485-10	L1203485-11	L1203485-12	Ingestion	Ingestion	Inhalation	Class I	Class II			
Sample Depth (feet)	4.5	14.5	6.0	10.5								
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/L	mg/kg	mg/kg	mg/kg
Inorganics (Metals)										pH Range		
SW-846 6010B										7.75 - 8.24	8.25 - 8.74	8.75 - 9.0
Arsenic[l,n]	10.8	5.7	6.66	16		61		0.05[m]	0.2[m]	31	32	33
Barium	100	66.9	55.3	179	5,500			2.0[m]	2.0[m]	2,100	---[a]	---[a]
Cadmium[l,n]	0.114 J	0.102 J	0.136 J	0.204 J	78			0.005[m]	0.05[m]	430	---[a]	---[a]
Chromium	26.1	17.9	21.9	21.4	230			0.1[m]	1[m]	28	24	21
Lead	31.4	9.54	12.9	46.3	400			0.0075[m]	0.1[m]	107	107	282
Selenium	< 2.41	< 2.36	< 2.29	< 2.89	390			0.05[m]	0.05[m]	2.4	1.8	1.3
Silver	< 1.20	< 1.18	< 1.15	< 1.44	390			0.05[m]	---[c]	110	---[a]	---[a]
SW-846 7471A												
Mercury	0.131	< 0.0354	0.0131 J	0.686			0.1	0.002[m]	0.01[m]	8.0	---[a]	---[a]
SW-846 9045D												
pH (reported as unitless)	8.51 T8	8.84 T8	8.30 T8	7.83 T8	---	---	---	---	---	---	---	---

NOTES:
Shaded - Indicates compound concentration above applicable remediation objective.
J - The identification of the analyte is acceptable; the reported value is an estimate.
l - Potential for soil-plant-human exposure.
m - The person conducting the remediation has the option to use: 1) TCLP or SPLP test results to compare with the remediation objectives listed in this Table; 2) where applicable, the total amount of contaminant in the soil sample results compare with the pH specific remediation objectives listed in Appendix B, Table C or D of this Part (see Section 742.510); or 3) the appropriate background value listed in Appendix A, Table G. If the person conducting the remediation wishes to calculate soil remediation objectives based on background concentrations, this should be done in accordance with Subpart D of this Part.
T8 - Samples received past/too close to holding time expiration.
---- No objective available.
----[a] - No data available for this pH range.
mg/kg - milligrams per kilogram reported as dry weight. Also referred to as parts per million (ppm).
mg/L - milligrams per liter. Also referred to as ppm.
Most stringent Residential, Industrial/Commercial, and Construction Worker objectives listed.

Table 5c Soil Analytical Results - Inorganics (metals)

Morgan Street PSI
Morgan Street and 1st Street. Shelbyville, Illinois
Updated April 27, 2020, Bodine Environmental Services, Inc.
Project #127051

Sample ID	B8-1	B8-2	B9				Soil Component of Groundwater Ingestion (SCGWI)		pH Specific Soil Remediation Objectives for the SCGWI Pathway for Class I Groundwater	
Sample Date	03/25/2020	03/25/2020	03/25/2020	Residential	Construction Worker					
Laboratory ID	L1203485-13	L1203485-14	L1203485-15	Ingestion	Ingestion	Inhalation	Class I	Class II		
Sample Depth (feet)	5.5	10.5	10.0							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/L	mg/kg	mg/kg
Inorganics (Metals)									pH Range	
SW-846 6010B									7.75 - 8.24	8.25 - 8.74
Arsenic[l,n]	5.81	4.52	2.56		61		0.05[m]	0.2[m]	31	32
Barium	69.1 O1	64.4	10.1	5,500			2.0[m]	2.0[m]	2,100	----[a]
Cadmium[l,n]	0.149 J	< 0.635	< 0.575	78			0.005[m]	0.05[m]	430	----[a]
Chromium	18.9 O1	17.2	6.14	230			0.1[m]	1[m]	28	24
Lead	15.7 O1	15.2	6.51	400			0.0075[m]	0.1[m]	107	107
Selenium	< 2.29	< 2.54	< 2.30	390			0.05[m]	0.05[m]	2.4	1.8
Silver	< 1.15	< 1.27	< 1.15	390			0.05[m]	----[c]	110	----[a]
SW-846 7471A										
Mercury	0.102	0.0235 J	0.00834 J			0.1	0.002[m]	0.01[m]	8.0	----[a]
SW-846 9045D										
pH (reported as unitless)	8.36 T8	8.12 T8	8.22 T8	----	----	----	----	----	----	----

NOTES:
Shaded - Indicates compound concentration above applicable remediation objective.
J - The identification of the analyte is acceptable; the reported value is an estimate.
l - Potential for soil-plant-human exposure.
m - The person conducting the remediation has the option to use: 1) TCLP or SPLP test results to compare with the remediation objectives listed in this Table; 2) where applicable, the total amount of contaminant in the soil sample results compare with the pH specific remediation objectives listed in Appendix B, Table C or D of this Part (see Section 742.510); or 3) the appropriate background value listed in Appendix A, Table G. If the person conducting the remediation wishes to calculate soil remediation objectives based on background concentrations, this should be done in accordance with Subpart D of this Part.
O1 - The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
T8 - Samples received past/too close to holding time expiration.
---- No objective available.
----[a] - No data available for this pH range.
mg/kg - milligrams per kilogram reported as dry weight. Also referred to as parts per million (ppm).
mg/L - milligrams per liter. Also referred to as ppm.
Most stringent Residential, Industrial/Commercial, and Construction Worker objectives listed.

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

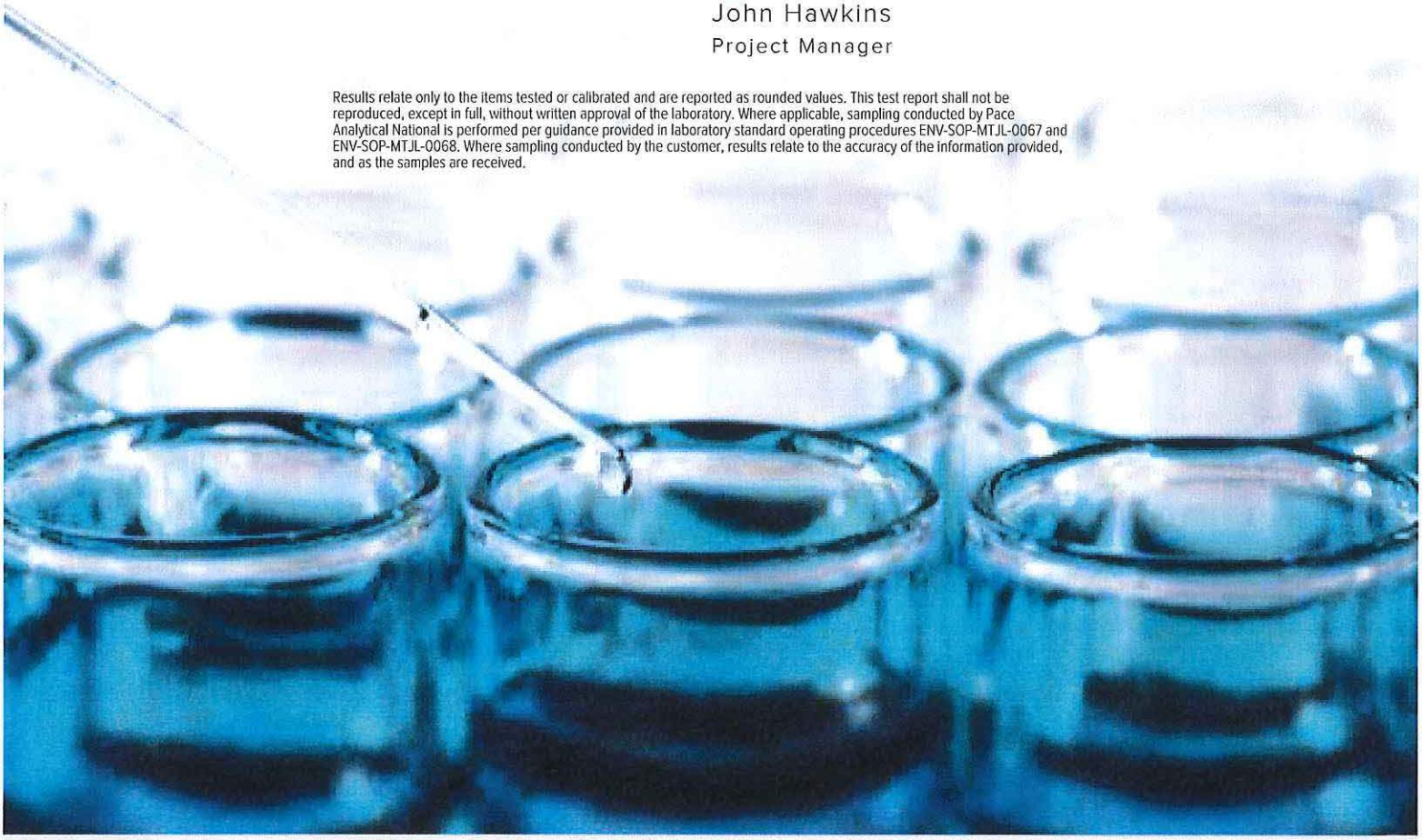
April 08, 2020

Bodine Environmental Services Inc.

Sample Delivery Group:	L1203485
Samples Received:	03/27/2020
Project Number:	127051
Description:	Morgan St PSI
Site:	127051
Report To:	Bob Rogers 2509 West Iles Avenue, Suite 103 Springfield, IL 62704

Entire Report Reviewed By: John V Hawkins

John Hawkins
Project Manager



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B1-1 L1203485-01 Solid

Collected by: Robert Rogers | Collected date/time: 03/25/20 10:00 | Received date/time: 03/27/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1452621	1	03/31/20 18:38	03/31/20 18:46	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1451984	1	03/30/20 10:00	03/30/20 13:00	KPS	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1452067	1	03/29/20 05:22	03/30/20 20:25	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1452056	1	03/25/20 10:00	03/29/20 01:01	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1452441	1	03/30/20 03:44	03/30/20 16:22	LEA	Mt. Juliet, TN

B1-2 L1203485-02 Solid

Collected by: Robert Rogers | Collected date/time: 03/25/20 10:30 | Received date/time: 03/27/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1452621	1	03/31/20 18:38	03/31/20 18:46	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1451984	1	03/30/20 10:00	03/30/20 13:00	KPS	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1452067	1	03/29/20 05:22	03/30/20 20:27	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1452056	1	03/25/20 10:30	03/29/20 01:20	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1452441	1	03/30/20 03:44	03/30/20 16:43	LEA	Mt. Juliet, TN

B2-1 L1203485-03 Solid

Collected by: Robert Rogers | Collected date/time: 03/25/20 10:40 | Received date/time: 03/27/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1452621	1	03/31/20 18:38	03/31/20 18:46	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1451984	1	03/30/20 10:00	03/30/20 13:00	KPS	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1452067	1	03/29/20 05:22	03/30/20 20:30	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1452056	1	03/25/20 10:40	03/29/20 01:39	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1452441	1	03/30/20 03:44	03/30/20 17:03	LEA	Mt. Juliet, TN

B2-2 L1203485-04 Solid

Collected by: Robert Rogers | Collected date/time: 03/25/20 11:10 | Received date/time: 03/27/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1452621	1	03/31/20 18:38	03/31/20 18:46	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1451984	1	03/30/20 10:00	03/30/20 13:00	KPS	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1452067	1	03/29/20 05:22	03/30/20 20:33	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1452056	1	03/25/20 11:10	03/29/20 01:59	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1452441	1	03/30/20 03:44	03/30/20 17:24	LEA	Mt. Juliet, TN

B3-1 L1203485-05 Solid

Collected by: Robert Rogers | Collected date/time: 03/25/20 11:40 | Received date/time: 03/27/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1452621	1	03/31/20 18:38	03/31/20 18:46	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1451984	1	03/30/20 10:00	03/30/20 13:00	KPS	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1452067	1	03/29/20 05:22	03/30/20 20:36	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1452056	1	03/25/20 11:40	03/29/20 02:18	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1452443	1	03/30/20 03:41	03/30/20 11:13	DMG	Mt. Juliet, TN

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

B3-2 L1203485-06 Solid

Collected by: Robert Rogers | Collected date/time: 03/25/20 12:00 | Received date/time: 03/27/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1452621	1	03/31/20 18:38	03/31/20 18:46	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1451984	1	03/30/20 10:00	03/30/20 13:00	KPS	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1452067	1	03/29/20 05:22	03/30/20 20:38	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1452056	1	03/25/20 12:00	03/29/20 02:37	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1452443	1	03/30/20 03:41	03/30/20 11:33	DMG	Mt. Juliet, TN

B4 L1203485-07 Solid

Collected by: Robert Rogers | Collected date/time: 03/25/20 12:20 | Received date/time: 03/27/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1452621	1	03/31/20 18:38	03/31/20 18:46	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1451984	1	03/30/20 10:00	03/30/20 13:00	KPS	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1452067	1	03/29/20 05:22	03/30/20 20:41	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1452056	1	03/25/20 12:20	03/29/20 02:56	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1452798	1	03/30/20 17:02	03/30/20 21:19	AAT	Mt. Juliet, TN

B5 L1203485-08 Solid

Collected by: Robert Rogers | Collected date/time: 03/25/20 12:45 | Received date/time: 03/27/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1452621	1	03/31/20 18:38	03/31/20 18:46	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1451984	1	03/30/20 10:00	03/30/20 13:00	KPS	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1452067	1	03/29/20 05:22	03/30/20 20:43	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1452056	1	03/25/20 12:45	03/29/20 03:16	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1452798	1	03/30/20 17:02	03/30/20 21:40	AAT	Mt. Juliet, TN

B6-1 L1203485-09 Solid

Collected by: Robert Rogers | Collected date/time: 03/25/20 13:00 | Received date/time: 03/27/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1452621	1	03/31/20 18:38	03/31/20 18:46	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1451984	1	03/30/20 10:00	03/30/20 13:00	KPS	Mt. Juliet, TN
Mercury by Method 7471A	WG1455936	1	04/05/20 15:24	04/06/20 07:56	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1452067	1	03/29/20 05:22	03/30/20 20:46	JDG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1456771	1	03/25/20 13:00	04/07/20 12:31	ACG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1455233	1	04/03/20 18:11	04/04/20 04:14	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1452798	1	03/30/20 17:02	03/30/20 22:00	AAT	Mt. Juliet, TN

B6-2 L1203485-10 Solid

Collected by: Robert Rogers | Collected date/time: 03/25/20 13:20 | Received date/time: 03/27/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1452621	1	03/31/20 18:38	03/31/20 18:46	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1451984	1	03/30/20 10:00	03/30/20 13:00	KPS	Mt. Juliet, TN
Mercury by Method 7471A	WG1455936	1	04/05/20 15:24	04/06/20 08:01	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1452067	1	03/29/20 05:22	03/30/20 20:49	JDG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1452059	1	03/25/20 13:20	03/29/20 00:14	JHH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1455233	1	04/03/20 18:11	04/04/20 00:00	AAT	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1452798	1	03/30/20 17:02	03/30/20 22:21	AAT	Mt. Juliet, TN

B7-1 L1203485-11 Solid

Collected by: Robert Rogers | Collected date/time: 03/25/20 13:45 | Received date/time: 03/27/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1452627	1	03/30/20 16:44	03/30/20 16:52	KDW	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1451984	1	03/30/20 10:00	03/30/20 13:00	KPS	Mt. Juliet, TN
Mercury by Method 7471A	WG1455936	1	04/05/20 15:24	04/06/20 08:03	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1452067	1	03/29/20 05:22	03/30/20 20:56	JDG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1452059	1	03/25/20 13:45	03/29/20 00:33	JHH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1455233	1	04/03/20 18:11	04/04/20 02:19	AAT	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1452798	1	03/30/20 17:02	03/30/20 22:42	AAT	Mt. Juliet, TN

B7-2 L1203485-12 Solid

Collected by: Robert Rogers | Collected date/time: 03/25/20 13:50 | Received date/time: 03/27/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1452627	1	03/30/20 16:44	03/30/20 16:52	KDW	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1451984	1	03/30/20 10:00	03/30/20 13:00	KPS	Mt. Juliet, TN
Mercury by Method 7471A	WG1455936	1	04/05/20 15:24	04/06/20 08:05	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1452067	1	03/29/20 05:22	03/30/20 20:59	JDG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1452059	1	03/25/20 13:50	03/29/20 00:51	JHH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1455233	1	04/03/20 18:11	04/04/20 04:37	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1452798	1	03/30/20 17:02	03/30/20 23:02	AAT	Mt. Juliet, TN

B8-1 L1203485-13 Solid

Collected by: Robert Rogers | Collected date/time: 03/25/20 14:10 | Received date/time: 03/27/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1452627	1	03/30/20 16:44	03/30/20 16:52	KDW	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1451984	1	03/30/20 10:00	03/30/20 13:00	KPS	Mt. Juliet, TN
Mercury by Method 7471A	WG1455936	1	04/05/20 15:24	04/06/20 08:07	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1452067	1	03/29/20 05:22	03/30/20 19:59	JDG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1452059	1	03/25/20 14:10	03/29/20 01:10	JHH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1455233	1	04/03/20 18:11	04/04/20 02:42	AAT	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1452798	1	03/30/20 17:02	03/30/20 23:23	AAT	Mt. Juliet, TN

B8-2 L1203485-14 Solid

Collected by: Robert Rogers | Collected date/time: 03/25/20 14:20 | Received date/time: 03/27/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1452627	1	03/30/20 16:44	03/30/20 16:52	KDW	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1451984	1	03/30/20 10:00	03/30/20 13:00	KPS	Mt. Juliet, TN
Mercury by Method 7471A	WG1455936	1	04/05/20 15:24	04/06/20 08:09	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1452067	1	03/29/20 05:22	03/30/20 21:02	JDG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1452059	1	03/25/20 14:20	03/29/20 01:29	JHH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1455233	1	04/03/20 18:11	04/04/20 03:05	AAT	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1452798	1	03/30/20 17:02	03/30/20 23:43	AAT	Mt. Juliet, TN

B9 L1203485-15 Solid

Collected by: Robert Rogers | Collected date/time: 03/25/20 14:40 | Received date/time: 03/27/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1452627	1	03/30/20 16:44	03/30/20 16:52	KDW	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1451984	1	03/30/20 10:00	03/30/20 13:00	KPS	Mt. Juliet, TN
Mercury by Method 7471A	WG1455936	1	04/05/20 15:24	04/06/20 08:15	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1452067	1	03/29/20 05:22	03/30/20 21:04	JDG	Mt. Juliet, TN

B9 L1203485-15 Solid

Collected by: Robert Rogers
Collected date/time: 03/25/20 14:40
Received date/time: 03/27/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1452059	1	03/25/20 14:40	03/29/20 01:48	JHH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1455233	1	04/03/20 18:11	04/04/20 00:23	AAT	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1452798	1	03/30/20 17:02	03/31/20 00:45	AAT	Mt. Juliet, TN

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

John V Hawkins

John Hawkins
Project Manager

Report Revision History

Level II Report - Version 1: 04/03/20 08:40

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	90.3		1	03/31/2020 18:46	WG1452621

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	su				
pH	7.52	T8	1	03/30/2020 13:00	WG1451984

Sample Narrative:

L1203485-01 WG1451984: 7.52 at 23.1C

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Lead	6.61		0.210	0.554	1	03/30/2020 20:25	WG1452067

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Benzene	U		0.000443	0.00111	1	03/29/2020 01:01	WG1452056
Toluene	U		0.00138	0.00554	1	03/29/2020 01:01	WG1452056
Ethylbenzene	0.000825	J	0.000587	0.00277	1	03/29/2020 01:01	WG1452056
Total Xylenes	U		0.00530	0.00720	1	03/29/2020 01:01	WG1452056
Methyl tert-butyl ether	U		0.000327	0.00111	1	03/29/2020 01:01	WG1452056
(S) Toluene-d8	*84.4*			*75.0-131*		*03/29/2020 01:01*	WG1452056
(S) 4-Bromofluorobenzene	*134*			*67.0-138*		*03/29/2020 01:01*	WG1452056
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*03/29/2020 01:01*	WG1452056

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Anthracene	U		0.000665	0.00665	1	03/30/2020 16:22	WG1452441
Acenaphthene	U		0.000665	0.00665	1	03/30/2020 16:22	WG1452441
Acenaphthylene	U		0.000665	0.00665	1	03/30/2020 16:22	WG1452441
Benzo(a)anthracene	U		0.000665	0.00665	1	03/30/2020 16:22	WG1452441
Benzo(a)pyrene	U		0.000665	0.00665	1	03/30/2020 16:22	WG1452441
Benzo(b)fluoranthene	U		0.000665	0.00665	1	03/30/2020 16:22	WG1452441
Benzo(g,h,i)perylene	0.000876	J	0.000665	0.00665	1	03/30/2020 16:22	WG1452441
Benzo(k)fluoranthene	U		0.000665	0.00665	1	03/30/2020 16:22	WG1452441
Chrysene	U		0.000665	0.00665	1	03/30/2020 16:22	WG1452441
Dibenz(a,h)anthracene	U		0.000665	0.00665	1	03/30/2020 16:22	WG1452441
Fluoranthene	U		0.000665	0.00665	1	03/30/2020 16:22	WG1452441
Fluorene	U		0.000665	0.00665	1	03/30/2020 16:22	WG1452441
Indeno(1,2,3-cd)pyrene	U		0.000665	0.00665	1	03/30/2020 16:22	WG1452441
Naphthalene	0.00329	J	0.00222	0.0222	1	03/30/2020 16:22	WG1452441
Phenanthrene	U		0.000665	0.00665	1	03/30/2020 16:22	WG1452441
Pyrene	U		0.000665	0.00665	1	03/30/2020 16:22	WG1452441
1-Methylnaphthalene	U		0.00222	0.0222	1	03/30/2020 16:22	WG1452441
2-Methylnaphthalene	U		0.00222	0.0222	1	03/30/2020 16:22	WG1452441
2-Chloronaphthalene	U		0.00222	0.0222	1	03/30/2020 16:22	WG1452441
(S) Nitrobenzene-d5	*78.1*			*14.0-149*		*03/30/2020 16:22*	WG1452441
(S) 2-Fluorobiphenyl	*69.4*			*34.0-125*		*03/30/2020 16:22*	WG1452441
(S) p-Terphenyl-d14	*70.5*			*23.0-120*		*03/30/2020 16:22*	WG1452441

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	90.1		1	03/31/2020 18:46	WG1452621

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	su				
pH	8.80	T8	1	03/30/2020 13:00	WG1451984

Sample Narrative:
L1203485-02 WG1451984: 8.8 at 23.1C

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Lead	6.67		0.211	0.555	1	03/30/2020 20:27	WG1452067

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Benzene	U		0.000444	0.00111	1	03/29/2020 01:20	WG1452056
Toluene	U		0.00139	0.00555	1	03/29/2020 01:20	WG1452056
Ethylbenzene	U		0.000588	0.00277	1	03/29/2020 01:20	WG1452056
Total Xylenes	U		0.00531	0.00721	1	03/29/2020 01:20	WG1452056
Methyl tert-butyl ether	U		0.000327	0.00111	1	03/29/2020 01:20	WG1452056
(S) Toluene-d8	*112*			*75.0-131*		*03/29/2020 01:20*	WG1452056
(S) 4-Bromofluorobenzene	*96.3*			*67.0-138*		*03/29/2020 01:20*	WG1452056
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*03/29/2020 01:20*	WG1452056

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Anthracene	U		0.000666	0.00666	1	03/30/2020 16:43	WG1452441
Acenaphthene	U		0.000666	0.00666	1	03/30/2020 16:43	WG1452441
Acenaphthylene	U		0.000666	0.00666	1	03/30/2020 16:43	WG1452441
Benzo(a)anthracene	U		0.000666	0.00666	1	03/30/2020 16:43	WG1452441
Benzo(a)pyrene	U		0.000666	0.00666	1	03/30/2020 16:43	WG1452441
Benzo(b)fluoranthene	U		0.000666	0.00666	1	03/30/2020 16:43	WG1452441
Benzo(g,h,i)perylene	0.00178	J	0.000666	0.00666	1	03/30/2020 16:43	WG1452441
Benzo(k)fluoranthene	U		0.000666	0.00666	1	03/30/2020 16:43	WG1452441
Chrysene	U		0.000666	0.00666	1	03/30/2020 16:43	WG1452441
Dibenz(a,h)anthracene	U		0.000666	0.00666	1	03/30/2020 16:43	WG1452441
Fluoranthene	U		0.000666	0.00666	1	03/30/2020 16:43	WG1452441
Fluorene	0.000713	J	0.000666	0.00666	1	03/30/2020 16:43	WG1452441
Indeno(1,2,3-cd)pyrene	U		0.000666	0.00666	1	03/30/2020 16:43	WG1452441
Naphthalene	U		0.00222	0.0222	1	03/30/2020 16:43	WG1452441
Phenanthrene	0.00176	J	0.000666	0.00666	1	03/30/2020 16:43	WG1452441
Pyrene	0.00141	J	0.000666	0.00666	1	03/30/2020 16:43	WG1452441
1-Methylnaphthalene	U		0.00222	0.0222	1	03/30/2020 16:43	WG1452441
2-Methylnaphthalene	U		0.00222	0.0222	1	03/30/2020 16:43	WG1452441
2-Chloronaphthalene	U		0.00222	0.0222	1	03/30/2020 16:43	WG1452441
(S) Nitrobenzene-d5	*76.8*			*14.0-149*		*03/30/2020 16:43*	WG1452441
(S) 2-Fluorobiphenyl	*69.4*			*34.0-125*		*03/30/2020 16:43*	WG1452441
(S) p-Terphenyl-d14	*69.4*			*23.0-120*		*03/30/2020 16:43*	WG1452441

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.0		1	03/31/2020 18:46	WG1452621

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.90	T8	1	03/30/2020 13:00	WG1451984

Sample Narrative:

L1203485-03 WG1451984: 8.9 at 23C

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	7.59		0.218	0.575	1	03/30/2020 20:30	WG1452067

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000460	0.00115	1	03/29/2020 01:39	WG1452056
Toluene	U		0.00144	0.00575	1	03/29/2020 01:39	WG1452056
Ethylbenzene	U		0.000609	0.00287	1	03/29/2020 01:39	WG1452056
Total Xylenes	U		0.00550	0.00747	1	03/29/2020 01:39	WG1452056
Methyl tert-butyl ether	U		0.000339	0.00115	1	03/29/2020 01:39	WG1452056
(S) Toluene-d8	*112*			*75.0-131*		*03/29/2020 01:39*	WG1452056
(S) 4-Bromofluorobenzene	*92.0*			*67.0-138*		*03/29/2020 01:39*	WG1452056
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*03/29/2020 01:39*	WG1452056

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	U		0.000690	0.00690	1	03/30/2020 17:03	WG1452441
Acenaphthene	U		0.000690	0.00690	1	03/30/2020 17:03	WG1452441
Acenaphthylene	U		0.000690	0.00690	1	03/30/2020 17:03	WG1452441
Benzo(a)anthracene	U		0.000690	0.00690	1	03/30/2020 17:03	WG1452441
Benzo(a)pyrene	U		0.000690	0.00690	1	03/30/2020 17:03	WG1452441
Benzo(b)fluoranthene	U		0.000690	0.00690	1	03/30/2020 17:03	WG1452441
Benzo(g,h,i)perylene	0.000730	J	0.000690	0.00690	1	03/30/2020 17:03	WG1452441
Benzo(k)fluoranthene	U		0.000690	0.00690	1	03/30/2020 17:03	WG1452441
Chrysene	U		0.000690	0.00690	1	03/30/2020 17:03	WG1452441
Dibenz(a,h)anthracene	0.000695	J	0.000690	0.00690	1	03/30/2020 17:03	WG1452441
Fluoranthene	U		0.000690	0.00690	1	03/30/2020 17:03	WG1452441
Fluorene	U		0.000690	0.00690	1	03/30/2020 17:03	WG1452441
Indeno(1,2,3-cd)pyrene	U		0.000690	0.00690	1	03/30/2020 17:03	WG1452441
Naphthalene	U		0.00230	0.0230	1	03/30/2020 17:03	WG1452441
Phenanthrene	0.000974	J	0.000690	0.00690	1	03/30/2020 17:03	WG1452441
Pyrene	U		0.000690	0.00690	1	03/30/2020 17:03	WG1452441
1-Methylnaphthalene	U		0.00230	0.0230	1	03/30/2020 17:03	WG1452441
2-Methylnaphthalene	U		0.00230	0.0230	1	03/30/2020 17:03	WG1452441
2-Chloronaphthalene	U		0.00230	0.0230	1	03/30/2020 17:03	WG1452441
(S) Nitrobenzene-d5	*75.4*			*14.0-149*		*03/30/2020 17:03*	WG1452441
(S) 2-Fluorobiphenyl	*68.5*			*34.0-125*		*03/30/2020 17:03*	WG1452441
(S) p-Terphenyl-d14	*68.0*			*23.0-120*		*03/30/2020 17:03*	WG1452441

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	88.6		1	03/31/2020 18:46	WG1452621

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	su				
pH	8.49	T8	1	03/30/2020 13:00	WG1451984

Sample Narrative:

L1203485-04 WG1451984: 8.49 at 23.2C

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Lead	7.68		0.214	0.564	1	03/30/2020 20:33	WG1452067

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Benzene	U	J3	0.000451	0.00113	1	03/29/2020 01:59	WG1452056
Toluene	U	J3	0.00141	0.00564	1	03/29/2020 01:59	WG1452056
Ethylbenzene	U		0.000598	0.00282	1	03/29/2020 01:59	WG1452056
Total Xylenes	U		0.00539	0.00733	1	03/29/2020 01:59	WG1452056
Methyl tert-butyl ether	U		0.000333	0.00113	1	03/29/2020 01:59	WG1452056
(S) Toluene-d8	*111*			*75.0-131*		*03/29/2020 01:59*	WG1452056
(S) 4-Bromofluorobenzene	*88.5*			*67.0-138*		*03/29/2020 01:59*	WG1452056
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*03/29/2020 01:59*	WG1452056

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Anthracene	U		0.000677	0.00677	1	03/30/2020 17:24	WG1452441
Acenaphthene	U		0.000677	0.00677	1	03/30/2020 17:24	WG1452441
Acenaphthylene	U		0.000677	0.00677	1	03/30/2020 17:24	WG1452441
Benzo(a)anthracene	U		0.000677	0.00677	1	03/30/2020 17:24	WG1452441
Benzo(a)pyrene	U		0.000677	0.00677	1	03/30/2020 17:24	WG1452441
Benzo(b)fluoranthene	0.000863	J	0.000677	0.00677	1	03/30/2020 17:24	WG1452441
Benzo(g,h,i)perylene	0.000703	J	0.000677	0.00677	1	03/30/2020 17:24	WG1452441
Benzo(k)fluoranthene	U		0.000677	0.00677	1	03/30/2020 17:24	WG1452441
Chrysene	0.000910	J	0.000677	0.00677	1	03/30/2020 17:24	WG1452441
Dibenz(a,h)anthracene	U		0.000677	0.00677	1	03/30/2020 17:24	WG1452441
Fluoranthene	0.000917	J	0.000677	0.00677	1	03/30/2020 17:24	WG1452441
Fluorene	U		0.000677	0.00677	1	03/30/2020 17:24	WG1452441
Indeno(1,2,3-cd)pyrene	U		0.000677	0.00677	1	03/30/2020 17:24	WG1452441
Naphthalene	U		0.00226	0.0226	1	03/30/2020 17:24	WG1452441
Phenanthrene	0.00298	J	0.000677	0.00677	1	03/30/2020 17:24	WG1452441
Pyrene	U		0.000677	0.00677	1	03/30/2020 17:24	WG1452441
1-Methylnaphthalene	U		0.00226	0.0226	1	03/30/2020 17:24	WG1452441
2-Methylnaphthalene	U		0.00226	0.0226	1	03/30/2020 17:24	WG1452441
2-Chloronaphthalene	U		0.00226	0.0226	1	03/30/2020 17:24	WG1452441
(S) Nitrobenzene-d5	*74.9*			*14.0-149*		*03/30/2020 17:24*	WG1452441
(S) 2-Fluorobiphenyl	*67.6*			*34.0-125*		*03/30/2020 17:24*	WG1452441
(S) p-Terphenyl-d14	*66.7*			*23.0-120*		*03/30/2020 17:24*	WG1452441

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	86.5		1	03/31/2020 18:46	WG1452621

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	su				
pH	8.54	T8	1	03/30/2020 13:00	WG1451984

Sample Narrative:

L1203485-05 WG1451984: 8.54 at 23.1C

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Lead	8.29		0.220	0.578	1	03/30/2020 20:36	WG1452067

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Benzene	U		0.000462	0.00116	1	03/29/2020 02:18	WG1452056
Toluene	U		0.00144	0.00578	1	03/29/2020 02:18	WG1452056
Ethylbenzene	U		0.000612	0.00289	1	03/29/2020 02:18	WG1452056
Total Xylenes	U		0.00552	0.00751	1	03/29/2020 02:18	WG1452056
Methyl tert-butyl ether	U		0.000341	0.00116	1	03/29/2020 02:18	WG1452056
(S) Toluene-d8	*111*			*75.0-131*		*03/29/2020 02:18*	WG1452056
(S) 4-Bromofluorobenzene	*91.1*			*67.0-138*		*03/29/2020 02:18*	WG1452056
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*03/29/2020 02:18*	WG1452056

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Anthracene	U		0.000693	0.00693	1	03/30/2020 11:13	WG1452443
Acenaphthene	U		0.000693	0.00693	1	03/30/2020 11:13	WG1452443
Acenaphthylene	U		0.000693	0.00693	1	03/30/2020 11:13	WG1452443
Benzo(a)anthracene	U		0.000693	0.00693	1	03/30/2020 11:13	WG1452443
Benzo(a)pyrene	U		0.000693	0.00693	1	03/30/2020 11:13	WG1452443
Benzo(b)fluoranthene	U		0.000693	0.00693	1	03/30/2020 11:13	WG1452443
Benzo(g,h,i)perylene	U		0.000693	0.00693	1	03/30/2020 11:13	WG1452443
Benzo(k)fluoranthene	U		0.000693	0.00693	1	03/30/2020 11:13	WG1452443
Chrysene	U		0.000693	0.00693	1	03/30/2020 11:13	WG1452443
Dibenz(a,h)anthracene	U		0.000693	0.00693	1	03/30/2020 11:13	WG1452443
Fluoranthene	U		0.000693	0.00693	1	03/30/2020 11:13	WG1452443
Fluorene	U		0.000693	0.00693	1	03/30/2020 11:13	WG1452443
Indeno(1,2,3-cd)pyrene	U		0.000693	0.00693	1	03/30/2020 11:13	WG1452443
Naphthalene	U		0.00231	0.0231	1	03/30/2020 11:13	WG1452443
Phenanthrene	U		0.000693	0.00693	1	03/30/2020 11:13	WG1452443
Pyrene	U		0.000693	0.00693	1	03/30/2020 11:13	WG1452443
1-Methylnaphthalene	U		0.00231	0.0231	1	03/30/2020 11:13	WG1452443
2-Methylnaphthalene	U		0.00231	0.0231	1	03/30/2020 11:13	WG1452443
2-Chloronaphthalene	U		0.00231	0.0231	1	03/30/2020 11:13	WG1452443
(S) Nitrobenzene-d5	*56.9*			*14.0-149*		*03/30/2020 11:13*	WG1452443
(S) 2-Fluorobiphenyl	*55.9*			*34.0-125*		*03/30/2020 11:13*	WG1452443
(S) p-Terphenyl-d14	*57.3*			*23.0-120*		*03/30/2020 11:13*	WG1452443

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.4		1	03/31/2020 18:46	WG1452621

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.66	T8	1	03/30/2020 13:00	WG1451984

Sample Narrative:

L1203485-06 WG1451984: 8.66 at 23.14C

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	24.0		0.215	0.565	1	03/30/2020 20:38	WG1452067

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000452	0.00113	1	03/29/2020 02:37	WG1452056
Toluene	0.00150	J	0.00141	0.00565	1	03/29/2020 02:37	WG1452056
Ethylbenzene	U		0.000599	0.00283	1	03/29/2020 02:37	WG1452056
Total Xylenes	U		0.00540	0.00735	1	03/29/2020 02:37	WG1452056
Methyl tert-butyl ether	U		0.000334	0.00113	1	03/29/2020 02:37	WG1452056
(S) Toluene-d8	*110*			*75.0-131*		*03/29/2020 02:37*	WG1452056
(S) 4-Bromofluorobenzene	*92.9*			*67.0-138*		*03/29/2020 02:37*	WG1452056
(S) 1,2-Dichloroethane-d4	*97.4*			*70.0-130*		*03/29/2020 02:37*	WG1452056

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	U		0.000678	0.00678	1	03/30/2020 11:33	WG1452443
Acenaphthene	U		0.000678	0.00678	1	03/30/2020 11:33	WG1452443
Acenaphthylene	U		0.000678	0.00678	1	03/30/2020 11:33	WG1452443
Benzo(a)anthracene	U		0.000678	0.00678	1	03/30/2020 11:33	WG1452443
Benzo(a)pyrene	U		0.000678	0.00678	1	03/30/2020 11:33	WG1452443
Benzo(b)fluoranthene	U		0.000678	0.00678	1	03/30/2020 11:33	WG1452443
Benzo(g,h,i)perylene	U		0.000678	0.00678	1	03/30/2020 11:33	WG1452443
Benzo(k)fluoranthene	U		0.000678	0.00678	1	03/30/2020 11:33	WG1452443
Chrysene	U		0.000678	0.00678	1	03/30/2020 11:33	WG1452443
Dibenz(a,h)anthracene	U		0.000678	0.00678	1	03/30/2020 11:33	WG1452443
Fluoranthene	U		0.000678	0.00678	1	03/30/2020 11:33	WG1452443
Fluorene	U		0.000678	0.00678	1	03/30/2020 11:33	WG1452443
Indeno(1,2,3-cd)pyrene	U		0.000678	0.00678	1	03/30/2020 11:33	WG1452443
Naphthalene	U		0.00226	0.0226	1	03/30/2020 11:33	WG1452443
Phenanthrene	U		0.000678	0.00678	1	03/30/2020 11:33	WG1452443
Pyrene	U		0.000678	0.00678	1	03/30/2020 11:33	WG1452443
1-Methylnaphthalene	U		0.00226	0.0226	1	03/30/2020 11:33	WG1452443
2-Methylnaphthalene	U		0.00226	0.0226	1	03/30/2020 11:33	WG1452443
2-Chloronaphthalene	U		0.00226	0.0226	1	03/30/2020 11:33	WG1452443
(S) Nitrobenzene-d5	*60.5*			*14.0-149*		*03/30/2020 11:33*	WG1452443
(S) 2-Fluorobiphenyl	*58.7*			*34.0-125*		*03/30/2020 11:33*	WG1452443
(S) p-Terphenyl-d14	*59.5*			*23.0-120*		*03/30/2020 11:33*	WG1452443

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	78.4		1	03/31/2020 18:46	WG1452621

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	su				
pH	8.11	T8	1	03/30/2020 13:00	WG1451984

Sample Narrative:

L1203485-07 WG1451984: 8.11 at 22.9C

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Lead	24.7		0.242	0.638	1	03/30/2020 20:41	WG1452067

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Benzene	0.000791	J	0.000510	0.00128	1	03/29/2020 02:56	WG1452056
Toluene	0.00227	J	0.00159	0.00638	1	03/29/2020 02:56	WG1452056
Ethylbenzene	U		0.000676	0.00319	1	03/29/2020 02:56	WG1452056
Total Xylenes	U		0.00610	0.00829	1	03/29/2020 02:56	WG1452056
Methyl tert-butyl ether	U		0.000376	0.00128	1	03/29/2020 02:56	WG1452056
(S) Toluene-d8	*108*			*75.0-131*		*03/29/2020 02:56*	WG1452056
(S) 4-Bromofluorobenzene	*94.7*			*67.0-138*		*03/29/2020 02:56*	WG1452056
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*03/29/2020 02:56*	WG1452056

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Anthracene	0.00339	J	0.000765	0.00765	1	03/30/2020 21:19	WG1452798
Acenaphthene	U		0.000765	0.00765	1	03/30/2020 21:19	WG1452798
Acenaphthylene	U		0.000765	0.00765	1	03/30/2020 21:19	WG1452798
Benzo(a)anthracene	0.00199	J	0.000765	0.00765	1	03/30/2020 21:19	WG1452798
Benzo(a)pyrene	0.00167	J	0.000765	0.00765	1	03/30/2020 21:19	WG1452798
Benzo(b)fluoranthene	0.00184	J	0.000765	0.00765	1	03/30/2020 21:19	WG1452798
Benzo(g,h,i)perylene	0.00163	J	0.000765	0.00765	1	03/30/2020 21:19	WG1452798
Benzo(k)fluoranthene	0.00125	J	0.000765	0.00765	1	03/30/2020 21:19	WG1452798
Chrysene	0.00177	J	0.000765	0.00765	1	03/30/2020 21:19	WG1452798
Dibenz(a,h)anthracene	0.00115	J	0.000765	0.00765	1	03/30/2020 21:19	WG1452798
Fluoranthene	0.00261	J	0.000765	0.00765	1	03/30/2020 21:19	WG1452798
Fluorene	U		0.000765	0.00765	1	03/30/2020 21:19	WG1452798
Indeno(1,2,3-cd)pyrene	0.00148	J	0.000765	0.00765	1	03/30/2020 21:19	WG1452798
Naphthalene	U		0.00255	0.0255	1	03/30/2020 21:19	WG1452798
Phenanthrene	0.00286	J	0.000765	0.00765	1	03/30/2020 21:19	WG1452798
Pyrene	0.00242	J	0.000765	0.00765	1	03/30/2020 21:19	WG1452798
1-Methylnaphthalene	U		0.00255	0.0255	1	03/30/2020 21:19	WG1452798
2-Methylnaphthalene	U		0.00255	0.0255	1	03/30/2020 21:19	WG1452798
2-Chloronaphthalene	U		0.00255	0.0255	1	03/30/2020 21:19	WG1452798
(S) Nitrobenzene-d5	*83.9*			*14.0-149*		*03/30/2020 21:19*	WG1452798
(S) 2-Fluorobiphenyl	*83.4*			*34.0-125*		*03/30/2020 21:19*	WG1452798
(S) p-Terphenyl-d14	*87.6*			*23.0-120*		*03/30/2020 21:19*	WG1452798

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	82.3		1	03/31/2020 18:46	WG1452621

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	su				
pH	7.50	T8	1	03/30/2020 13:00	WG1451984

Sample Narrative:

L1203485-08 WG1451984: 7.5 at 22.8C

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Lead	27.8		0.231	0.608	1	03/30/2020 20:43	WG1452067

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Benzene	U		0.000486	0.00122	1	03/29/2020 03:16	WG1452056
Toluene	U		0.00152	0.00608	1	03/29/2020 03:16	WG1452056
Ethylbenzene	U		0.000644	0.00304	1	03/29/2020 03:16	WG1452056
Total Xylenes	U		0.00581	0.00790	1	03/29/2020 03:16	WG1452056
Methyl tert-butyl ether	U		0.000359	0.00122	1	03/29/2020 03:16	WG1452056
(S) Toluene-d8	*114*			*75.0-131*		*03/29/2020 03:16*	WG1452056
(S) 4-Bromofluorobenzene	*92.7*			*67.0-138*		*03/29/2020 03:16*	WG1452056
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*03/29/2020 03:16*	WG1452056

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Anthracene	U		0.000729	0.00729	1	03/30/2020 21:40	WG1452798
Acenaphthene	U		0.000729	0.00729	1	03/30/2020 21:40	WG1452798
Acenaphthylene	U		0.000729	0.00729	1	03/30/2020 21:40	WG1452798
Benzo(a)anthracene	0.00180	J	0.000729	0.00729	1	03/30/2020 21:40	WG1452798
Benzo(a)pyrene	0.00128	J	0.000729	0.00729	1	03/30/2020 21:40	WG1452798
Benzo(b)fluoranthene	0.00153	J	0.000729	0.00729	1	03/30/2020 21:40	WG1452798
Benzo(g,h,i)perylene	0.000987	J	0.000729	0.00729	1	03/30/2020 21:40	WG1452798
Benzo(k)fluoranthene	0.000739	J	0.000729	0.00729	1	03/30/2020 21:40	WG1452798
Chrysene	0.00176	J	0.000729	0.00729	1	03/30/2020 21:40	WG1452798
Dibenz(a,h)anthracene	U		0.000729	0.00729	1	03/30/2020 21:40	WG1452798
Fluoranthene	0.00360	J	0.000729	0.00729	1	03/30/2020 21:40	WG1452798
Fluorene	U		0.000729	0.00729	1	03/30/2020 21:40	WG1452798
Indeno(1,2,3-cd)pyrene	0.000835	J	0.000729	0.00729	1	03/30/2020 21:40	WG1452798
Naphthalene	U		0.00243	0.0243	1	03/30/2020 21:40	WG1452798
Phenanthrene	0.0131		0.000729	0.00729	1	03/30/2020 21:40	WG1452798
Pyrene	0.00288	J	0.000729	0.00729	1	03/30/2020 21:40	WG1452798
1-Methylnaphthalene	U		0.00243	0.0243	1	03/30/2020 21:40	WG1452798
2-Methylnaphthalene	U		0.00243	0.0243	1	03/30/2020 21:40	WG1452798
2-Chloronaphthalene	U		0.00243	0.0243	1	03/30/2020 21:40	WG1452798
(S) Nitrobenzene-d5	*73.4*			*14.0-149*		*03/30/2020 21:40*	WG1452798
(S) 2-Fluorobiphenyl	*73.1*			*34.0-125*		*03/30/2020 21:40*	WG1452798
(S) p-Terphenyl-d14	*76.6*			*23.0-120*		*03/30/2020 21:40*	WG1452798

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	83.0		1	03/31/2020 18:46	WG1452621

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	su				
pH	8.51	T8	1	03/30/2020 13:00	WG1451984

Sample Narrative:

L1203485-09 WG1451984: 8.51 at 22C

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Mercury	0.131		0.00337	0.0361	1	04/06/2020 07:56	WG1455936

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	10.8		0.554	2.41	1	03/30/2020 20:46	WG1452067
Barium	100		0.205	0.602	1	03/30/2020 20:46	WG1452067
Cadmium	0.114	J	0.0843	0.602	1	03/30/2020 20:46	WG1452067
Chromium	26.1		0.169	1.20	1	03/30/2020 20:46	WG1452067
Lead	31.4		0.229	0.602	1	03/30/2020 20:46	WG1452067
Selenium	U		0.747	2.41	1	03/30/2020 20:46	WG1452067
Silver	U		0.145	1.20	1	03/30/2020 20:46	WG1452067

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Acetone	U		0.0165	0.0301	1	04/07/2020 12:31	WG1456771
Acrylonitrile	U		0.00229	0.0151	1	04/07/2020 12:31	WG1456771
Benzene	0.000595	J	0.000482	0.00120	1	04/07/2020 12:31	WG1456771
Bromobenzene	U		0.00126	0.0151	1	04/07/2020 12:31	WG1456771
Bromodichloromethane	U		0.000949	0.00301	1	04/07/2020 12:31	WG1456771
Bromoform	U		0.00720	0.0301	1	04/07/2020 12:31	WG1456771
Bromomethane	U		0.00446	0.0151	1	04/07/2020 12:31	WG1456771
n-Butylbenzene	U		0.00462	0.0151	1	04/07/2020 12:31	WG1456771
sec-Butylbenzene	U		0.00305	0.0151	1	04/07/2020 12:31	WG1456771
tert-Butylbenzene	U		0.00187	0.00602	1	04/07/2020 12:31	WG1456771
Carbon tetrachloride	U		0.00130	0.00602	1	04/07/2020 12:31	WG1456771
Chlorobenzene	U		0.000690	0.00301	1	04/07/2020 12:31	WG1456771
Chlorodibromomethane	U		0.000542	0.00301	1	04/07/2020 12:31	WG1456771
Chloroethane	U		0.00130	0.00602	1	04/07/2020 12:31	WG1456771
Chloroform	U		0.000500	0.00301	1	04/07/2020 12:31	WG1456771
Chloromethane	U		0.00167	0.0151	1	04/07/2020 12:31	WG1456771
2-Chlorotoluene	U		0.00111	0.00301	1	04/07/2020 12:31	WG1456771
4-Chlorotoluene	U		0.00136	0.00602	1	04/07/2020 12:31	WG1456771
1,2-Dibromo-3-Chloropropane	U		0.00614	0.0301	1	04/07/2020 12:31	WG1456771
1,2-Dibromoethane	U		0.000632	0.00301	1	04/07/2020 12:31	WG1456771
Dibromomethane	U		0.00120	0.00602	1	04/07/2020 12:31	WG1456771
1,2-Dichlorobenzene	U		0.00175	0.00602	1	04/07/2020 12:31	WG1456771
1,3-Dichlorobenzene	U		0.00205	0.00602	1	04/07/2020 12:31	WG1456771
1,4-Dichlorobenzene	U		0.00237	0.00602	1	04/07/2020 12:31	WG1456771
Dichlorodifluoromethane	U		0.000985	0.00301	1	04/07/2020 12:31	WG1456771

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethane	U		0.000692	0.00301	1	04/07/2020 12:31	WG1456771
1,2-Dichloroethane	U		0.000572	0.00301	1	04/07/2020 12:31	WG1456771
1,1-Dichloroethene	U		0.000602	0.00301	1	04/07/2020 12:31	WG1456771
cis-1,2-Dichloroethene	U		0.000831	0.00301	1	04/07/2020 12:31	WG1456771
trans-1,2-Dichloroethene	U		0.00172	0.00602	1	04/07/2020 12:31	WG1456771
1,2-Dichloropropane	U		0.00153	0.00602	1	04/07/2020 12:31	WG1456771
1,1-Dichloropropene	U		0.000843	0.00301	1	04/07/2020 12:31	WG1456771
1,3-Dichloropropane	U		0.00211	0.00602	1	04/07/2020 12:31	WG1456771
cis-1,3-Dichloropropene	U		0.000817	0.00301	1	04/07/2020 12:31	WG1456771
trans-1,3-Dichloropropene	U		0.00184	0.00602	1	04/07/2020 12:31	WG1456771
2,2-Dichloropropane	U		0.000955	0.00301	1	04/07/2020 12:31	WG1456771
Di-isopropyl ether	U		0.000422	0.00120	1	04/07/2020 12:31	WG1456771
Ethylbenzene	0.00222	J	0.000638	0.00301	1	04/07/2020 12:31	WG1456771
Hexachloro-1,3-butadiene	U		0.0153	0.0301	1	04/07/2020 12:31	WG1456771
Isopropylbenzene	0.00112	J	0.00104	0.00301	1	04/07/2020 12:31	WG1456771
p-Isopropyltoluene	U		0.00281	0.00602	1	04/07/2020 12:31	WG1456771
2-Butanone (MEK)	0.0316	B	0.0151	0.0301	1	04/07/2020 12:31	WG1456771
Methylene Chloride	U		0.00800	0.0301	1	04/07/2020 12:31	WG1456771
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.0301	1	04/07/2020 12:31	WG1456771
Methyl tert-butyl ether	U		0.000355	0.00120	1	04/07/2020 12:31	WG1456771
Naphthalene	0.00797	J	0.00376	0.0151	1	04/07/2020 12:31	WG1456771
n-Propylbenzene	0.00171	J	0.00142	0.00602	1	04/07/2020 12:31	WG1456771
Styrene	U		0.00329	0.0151	1	04/07/2020 12:31	WG1456771
1,1,1,2-Tetrachloroethane	U		0.000602	0.00301	1	04/07/2020 12:31	WG1456771
1,1,2,2-Tetrachloroethane	U		0.000470	0.00301	1	04/07/2020 12:31	WG1456771
1,1,2-Trichlorotrifluoroethane	U		0.000813	0.00301	1	04/07/2020 12:31	WG1456771
Tetrachloroethene	U		0.000843	0.00301	1	04/07/2020 12:31	WG1456771
Toluene	0.00561	J	0.00151	0.00602	1	04/07/2020 12:31	WG1456771
1,2,3-Trichlorobenzene	U		0.000753	0.0151	1	04/07/2020 12:31	WG1456771
1,2,4-Trichlorobenzene	U		0.00580	0.0151	1	04/07/2020 12:31	WG1456771
1,1,1-Trichloroethane	U		0.000331	0.00301	1	04/07/2020 12:31	WG1456771
1,1,2-Trichloroethane	U		0.00106	0.00301	1	04/07/2020 12:31	WG1456771
Trichloroethene	U		0.000482	0.00120	1	04/07/2020 12:31	WG1456771
Trichlorofluoromethane	U		0.000602	0.00301	1	04/07/2020 12:31	WG1456771
1,2,3-Trichloropropane	U		0.00614	0.0151	1	04/07/2020 12:31	WG1456771
1,2,4-Trimethylbenzene	0.00727		0.00140	0.00602	1	04/07/2020 12:31	WG1456771
1,2,3-Trimethylbenzene	0.00715		0.00138	0.00602	1	04/07/2020 12:31	WG1456771
1,3,5-Trimethylbenzene	0.00361	J	0.00130	0.00602	1	04/07/2020 12:31	WG1456771
Vinyl chloride	U		0.000823	0.00301	1	04/07/2020 12:31	WG1456771
Xylenes, Total	0.00864		0.00576	0.00783	1	04/07/2020 12:31	WG1456771
(S) Toluene-d8	*118*			*75.0-131*		*04/07/2020 12:31*	WG1456771
(S) 4-Bromofluorobenzene	*92.1*			*67.0-138*		*04/07/2020 12:31*	WG1456771
(S) 1,2-Dichloroethane-d4	*75.6*			*70.0-130*		*04/07/2020 12:31*	WG1456771

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	0.00798	J	0.00773	0.0401	1	04/04/2020 04:14	WG1455233
Acenaphthylene	U		0.00808	0.0401	1	04/04/2020 04:14	WG1455233
Anthracene	0.0171	J	0.00761	0.0401	1	04/04/2020 04:14	WG1455233
Benzidine	U		0.0767	0.401	1	04/04/2020 04:14	WG1455233
Benzo(a)anthracene	0.0635		0.00515	0.0401	1	04/04/2020 04:14	WG1455233
Benzo(b)fluoranthene	0.0686		0.00837	0.0401	1	04/04/2020 04:14	WG1455233
Benzo(k)fluoranthene	0.0254	J	0.00701	0.0401	1	04/04/2020 04:14	WG1455233
Benzo(g,h,i)perylene	0.0293	J	0.00868	0.0401	1	04/04/2020 04:14	WG1455233
Benzo(a)pyrene	0.0566		0.00660	0.0401	1	04/04/2020 04:14	WG1455233

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Bis(2-chlorethoxy)methane	U		0.00927	0.401	1	04/04/2020 04:14	WG1455233
Bis(2-chloroethyl)ether	U		0.0108	0.401	1	04/04/2020 04:14	WG1455233
2,2-Oxybis(1-Chloropropane)	U		0.00915	0.401	1	04/04/2020 04:14	WG1455233
4-Bromophenyl-phenylether	U		0.0137	0.401	1	04/04/2020 04:14	WG1455233
2-Chloronaphthalene	U		0.00770	0.0401	1	04/04/2020 04:14	WG1455233
4-Chlorophenyl-phenylether	U		0.00755	0.401	1	04/04/2020 04:14	WG1455233
Chrysene	0.0513		0.00668	0.0401	1	04/04/2020 04:14	WG1455233
Dibenz(a,h)anthracene	U		0.00989	0.0401	1	04/04/2020 04:14	WG1455233
3,3-Dichlorobenzidine	U		0.0956	0.401	1	04/04/2020 04:14	WG1455233
2,4-Dinitrotoluene	U		0.00731	0.401	1	04/04/2020 04:14	WG1455233
2,6-Dinitrotoluene	U		0.00888	0.401	1	04/04/2020 04:14	WG1455233
Fluoranthene	0.104		0.00597	0.0401	1	04/04/2020 04:14	WG1455233
Fluorene	U		0.00821	0.0401	1	04/04/2020 04:14	WG1455233
Hexachlorobenzene	U		0.0103	0.401	1	04/04/2020 04:14	WG1455233
Hexachloro-1,3-butadiene	U		0.0120	0.401	1	04/04/2020 04:14	WG1455233
Hexachlorocyclopentadiene	U		0.0707	0.401	1	04/04/2020 04:14	WG1455233
Hexachloroethane	U		0.0161	0.401	1	04/04/2020 04:14	WG1455233
Indeno(1,2,3-cd)pyrene	0.0384	J	0.00930	0.0401	1	04/04/2020 04:14	WG1455233
Isophorone	U		0.00629	0.401	1	04/04/2020 04:14	WG1455233
Naphthalene	U		0.0107	0.0401	1	04/04/2020 04:14	WG1455233
Nitrobenzene	U		0.00837	0.401	1	04/04/2020 04:14	WG1455233
n-Nitrosodimethylamine	U		0.0779	0.401	1	04/04/2020 04:14	WG1455233
n-Nitrosodiphenylamine	U		0.108	0.401	1	04/04/2020 04:14	WG1455233
n-Nitrosodi-n-propylamine	U		0.0109	0.401	1	04/04/2020 04:14	WG1455233
Phenanthrene	0.0729		0.00636	0.0401	1	04/04/2020 04:14	WG1455233
Benzylbutyl phthalate	U		0.0124	0.401	1	04/04/2020 04:14	WG1455233
Bis(2-ethylhexyl)phthalate	U		0.0145	0.401	1	04/04/2020 04:14	WG1455233
Di-n-butyl phthalate	U		0.0131	0.401	1	04/04/2020 04:14	WG1455233
Diethyl phthalate	U		0.00832	0.401	1	04/04/2020 04:14	WG1455233
Dimethyl phthalate	U		0.00650	0.401	1	04/04/2020 04:14	WG1455233
Di-n-octyl phthalate	U		0.0109	0.401	1	04/04/2020 04:14	WG1455233
Pyrene	0.0826		0.0148	0.0401	1	04/04/2020 04:14	WG1455233
1,2,4-Trichlorobenzene	U		0.0106	0.401	1	04/04/2020 04:14	WG1455233
4-Chloro-3-methylphenol	U		0.00574	0.401	1	04/04/2020 04:14	WG1455233
2-Chlorophenol	U		0.0100	0.401	1	04/04/2020 04:14	WG1455233
2,4-Dichlorophenol	U		0.00898	0.401	1	04/04/2020 04:14	WG1455233
2,4-Dimethylphenol	U		0.0567	0.401	1	04/04/2020 04:14	WG1455233
4,6-Dinitro-2-methylphenol	U		0.149	0.401	1	04/04/2020 04:14	WG1455233
2,4-Dinitrophenol	U		0.118	0.401	1	04/04/2020 04:14	WG1455233
2-Nitrophenol	U		0.0157	0.401	1	04/04/2020 04:14	WG1455233
4-Nitrophenol	U		0.0632	0.401	1	04/04/2020 04:14	WG1455233
Pentachlorophenol	U		0.0578	0.401	1	04/04/2020 04:14	WG1455233
Phenol	U		0.00837	0.401	1	04/04/2020 04:14	WG1455233
2,4,6-Trichlorophenol	U		0.00938	0.401	1	04/04/2020 04:14	WG1455233
(S) 2-Fluorophenol	*60.8*			*12.0-120*		*04/04/2020 04:14*	WG1455233
(S) Phenol-d5	*54.2*			*10.0-120*		*04/04/2020 04:14*	WG1455233
(S) Nitrobenzene-d5	*52.0*			*10.0-122*		*04/04/2020 04:14*	WG1455233
(S) 2-Fluorobiphenyl	*54.2*			*15.0-120*		*04/04/2020 04:14*	WG1455233
(S) 2,4,6-Tribromophenol	*68.2*			*10.0-127*		*04/04/2020 04:14*	WG1455233
(S) p-Terphenyl-d14	*56.6*			*10.0-120*		*04/04/2020 04:14*	WG1455233

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.0183		0.000723	0.00723	1	03/30/2020 22:00	WG1452798
Acenaphthene	0.00612	J	0.000723	0.00723	1	03/30/2020 22:00	WG1452798
Acenaphthylene	U		0.000723	0.00723	1	03/30/2020 22:00	WG1452798
Benzo(a)anthracene	0.0835		0.000723	0.00723	1	03/30/2020 22:00	WG1452798
Benzo(a)pyrene	0.0738		0.000723	0.00723	1	03/30/2020 22:00	WG1452798
Benzo(b)fluoranthene	0.0923		0.000723	0.00723	1	03/30/2020 22:00	WG1452798
Benzo(g,h,i)perylene	0.0415		0.000723	0.00723	1	03/30/2020 22:00	WG1452798
Benzo(k)fluoranthene	0.0266		0.000723	0.00723	1	03/30/2020 22:00	WG1452798
Chrysene	0.0742		0.000723	0.00723	1	03/30/2020 22:00	WG1452798
Dibenz(a,h)anthracene	0.0128		0.000723	0.00723	1	03/30/2020 22:00	WG1452798
Fluoranthene	0.141		0.000723	0.00723	1	03/30/2020 22:00	WG1452798
Fluorene	0.00712	J	0.000723	0.00723	1	03/30/2020 22:00	WG1452798
Indeno(1,2,3-cd)pyrene	0.0391		0.000723	0.00723	1	03/30/2020 22:00	WG1452798
Naphthalene	0.00627	J	0.00241	0.0241	1	03/30/2020 22:00	WG1452798
Phenanthrene	0.0833		0.000723	0.00723	1	03/30/2020 22:00	WG1452798
Pyrene	0.124		0.000723	0.00723	1	03/30/2020 22:00	WG1452798
1-Methylnaphthalene	0.0137	J	0.00241	0.0241	1	03/30/2020 22:00	WG1452798
2-Methylnaphthalene	0.0123	J	0.00241	0.0241	1	03/30/2020 22:00	WG1452798
2-Chloronaphthalene	U		0.00241	0.0241	1	03/30/2020 22:00	WG1452798
(S) Nitrobenzene-d5	*77.6*			*14.0-149*		*03/30/2020 22:00*	WG1452798
(S) 2-Fluorobiphenyl	*76.0*			*34.0-125*		*03/30/2020 22:00*	WG1452798
(S) p-Terphenyl-d14	*77.6*			*23.0-120*		*03/30/2020 22:00*	WG1452798

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	84.7		1	03/31/2020 18:46	WG1452621

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	su				
pH	8.84	T8	1	03/30/2020 13:00	WG1451984

Sample Narrative:

L1203485-10 WG1451984: 8.84 at 21.9C

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Mercury	U		0.00331	0.0354	1	04/06/2020 08:01	WG1455936

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	5.70		0.543	2.36	1	03/30/2020 20:49	WG1452067
Barium	66.9		0.201	0.590	1	03/30/2020 20:49	WG1452067
Cadmium	0.102	J	0.0827	0.590	1	03/30/2020 20:49	WG1452067
Chromium	17.9		0.165	1.18	1	03/30/2020 20:49	WG1452067
Lead	9.54		0.224	0.590	1	03/30/2020 20:49	WG1452067
Selenium	U		0.732	2.36	1	03/30/2020 20:49	WG1452067
Silver	U		0.142	1.18	1	03/30/2020 20:49	WG1452067

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Acetone	U		0.0162	0.0295	1	03/29/2020 00:14	WG1452059
Acrylonitrile	U		0.00224	0.0148	1	03/29/2020 00:14	WG1452059
Benzene	U		0.000472	0.00118	1	03/29/2020 00:14	WG1452059
Bromobenzene	U		0.00124	0.0148	1	03/29/2020 00:14	WG1452059
Bromodichloromethane	U		0.000931	0.00295	1	03/29/2020 00:14	WG1452059
Bromoform	U		0.00706	0.0295	1	03/29/2020 00:14	WG1452059
Bromomethane	U		0.00437	0.0148	1	03/29/2020 00:14	WG1452059
n-Butylbenzene	U		0.00453	0.0148	1	03/29/2020 00:14	WG1452059
sec-Butylbenzene	U		0.00299	0.0148	1	03/29/2020 00:14	WG1452059
tert-Butylbenzene	U		0.00183	0.00590	1	03/29/2020 00:14	WG1452059
Carbon tetrachloride	U		0.00128	0.00590	1	03/29/2020 00:14	WG1452059
Chlorobenzene	U		0.000677	0.00295	1	03/29/2020 00:14	WG1452059
Chlorodibromomethane	U		0.000531	0.00295	1	03/29/2020 00:14	WG1452059
Chloroethane	U		0.00128	0.00590	1	03/29/2020 00:14	WG1452059
Chloroform	U		0.000490	0.00295	1	03/29/2020 00:14	WG1452059
Chloromethane	U		0.00164	0.0148	1	03/29/2020 00:14	WG1452059
2-Chlorotoluene	U		0.00109	0.00295	1	03/29/2020 00:14	WG1452059
4-Chlorotoluene	U		0.00133	0.00590	1	03/29/2020 00:14	WG1452059
1,2-Dibromo-3-Chloropropane	U		0.00602	0.0295	1	03/29/2020 00:14	WG1452059
1,2-Dibromoethane	U		0.000620	0.00295	1	03/29/2020 00:14	WG1452059
Dibromomethane	U		0.00118	0.00590	1	03/29/2020 00:14	WG1452059
1,2-Dichlorobenzene	U		0.00171	0.00590	1	03/29/2020 00:14	WG1452059
1,3-Dichlorobenzene	U		0.00201	0.00590	1	03/29/2020 00:14	WG1452059
1,4-Dichlorobenzene	U		0.00233	0.00590	1	03/29/2020 00:14	WG1452059
Dichlorodifluoromethane	U		0.000966	0.00295	1	03/29/2020 00:14	WG1452059

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethane	U		0.000679	0.00295	1	03/29/2020 00:14	WG1452059
1,2-Dichloroethane	U		0.000561	0.00295	1	03/29/2020 00:14	WG1452059
1,1-Dichloroethene	U		0.000590	0.00295	1	03/29/2020 00:14	WG1452059
cis-1,2-Dichloroethene	U		0.000815	0.00295	1	03/29/2020 00:14	WG1452059
trans-1,2-Dichloroethene	U		0.00169	0.00590	1	03/29/2020 00:14	WG1452059
1,2-Dichloropropane	U		0.00150	0.00590	1	03/29/2020 00:14	WG1452059
1,1-Dichloropropene	U		0.000827	0.00295	1	03/29/2020 00:14	WG1452059
1,3-Dichloropropane	U		0.00207	0.00590	1	03/29/2020 00:14	WG1452059
cis-1,3-Dichloropropene	U		0.000801	0.00295	1	03/29/2020 00:14	WG1452059
trans-1,3-Dichloropropene	U		0.00181	0.00590	1	03/29/2020 00:14	WG1452059
2,2-Dichloropropane	U		0.000937	0.00295	1	03/29/2020 00:14	WG1452059
Di-isopropyl ether	U		0.000413	0.00118	1	03/29/2020 00:14	WG1452059
Ethylbenzene	U		0.000626	0.00295	1	03/29/2020 00:14	WG1452059
Hexachloro-1,3-butadiene	U		0.0150	0.0295	1	03/29/2020 00:14	WG1452059
Isopropylbenzene	U		0.00102	0.00295	1	03/29/2020 00:14	WG1452059
p-Isopropyltoluene	U		0.00275	0.00590	1	03/29/2020 00:14	WG1452059
2-Butanone (MEK)	0.0197	B J	0.0148	0.0295	1	03/29/2020 00:14	WG1452059
Methylene Chloride	U		0.00784	0.0295	1	03/29/2020 00:14	WG1452059
4-Methyl-2-pentanone (MIBK)	U		0.0118	0.0295	1	03/29/2020 00:14	WG1452059
Methyl tert-butyl ether	U		0.000348	0.00118	1	03/29/2020 00:14	WG1452059
Naphthalene	U		0.00368	0.0148	1	03/29/2020 00:14	WG1452059
n-Propylbenzene	U		0.00139	0.00590	1	03/29/2020 00:14	WG1452059
Styrene	U		0.00322	0.0148	1	03/29/2020 00:14	WG1452059
1,1,1,2-Tetrachloroethane	U		0.000590	0.00295	1	03/29/2020 00:14	WG1452059
1,1,2,2-Tetrachloroethane	U		0.000461	0.00295	1	03/29/2020 00:14	WG1452059
1,1,2-Trichlorotrifluoroethane	U		0.000797	0.00295	1	03/29/2020 00:14	WG1452059
Tetrachloroethene	U		0.000827	0.00295	1	03/29/2020 00:14	WG1452059
Toluene	U		0.00148	0.00590	1	03/29/2020 00:14	WG1452059
1,2,3-Trichlorobenzene	U		0.000738	0.0148	1	03/29/2020 00:14	WG1452059
1,2,4-Trichlorobenzene	U		0.00569	0.0148	1	03/29/2020 00:14	WG1452059
1,1,1-Trichloroethane	U		0.000325	0.00295	1	03/29/2020 00:14	WG1452059
1,1,2-Trichloroethane	U		0.00104	0.00295	1	03/29/2020 00:14	WG1452059
Trichloroethene	U		0.000472	0.00118	1	03/29/2020 00:14	WG1452059
Trichlorofluoromethane	U		0.000590	0.00295	1	03/29/2020 00:14	WG1452059
1,2,3-Trichloropropane	U		0.00602	0.0148	1	03/29/2020 00:14	WG1452059
1,2,4-Trimethylbenzene	U		0.00137	0.00590	1	03/29/2020 00:14	WG1452059
1,2,3-Trimethylbenzene	U	J4	0.00136	0.00590	1	03/29/2020 00:14	WG1452059
1,3,5-Trimethylbenzene	U		0.00128	0.00590	1	03/29/2020 00:14	WG1452059
Vinyl chloride	U		0.000807	0.00295	1	03/29/2020 00:14	WG1452059
Xylenes, Total	U		0.00565	0.00768	1	03/29/2020 00:14	WG1452059
(S) Toluene-d8	*116*			*75.0-131*		*03/29/2020 00:14*	WG1452059
(S) 4-Bromofluorobenzene	*91.1*			*67.0-138*		*03/29/2020 00:14*	WG1452059
(S) 1,2-Dichloroethane-d4	*90.5*			*70.0-130*		*03/29/2020 00:14*	WG1452059

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00758	0.0393	1	04/04/2020 00:00	WG1455233
Acenaphthylene	U		0.00792	0.0393	1	04/04/2020 00:00	WG1455233
Anthracene	U		0.00746	0.0393	1	04/04/2020 00:00	WG1455233
Benzidine	U		0.0752	0.393	1	04/04/2020 00:00	WG1455233
Benzo(a)anthracene	U		0.00505	0.0393	1	04/04/2020 00:00	WG1455233
Benzo(b)fluoranthene	U		0.00821	0.0393	1	04/04/2020 00:00	WG1455233
Benzo(k)fluoranthene	U		0.00687	0.0393	1	04/04/2020 00:00	WG1455233
Benzo(g,h,i)perylene	U		0.00851	0.0393	1	04/04/2020 00:00	WG1455233
Benzo(a)pyrene	U		0.00647	0.0393	1	04/04/2020 00:00	WG1455233

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Bis(2-chlorethoxy)methane	U		0.00909	0.393	1	04/04/2020 00:00	WG1455233
Bis(2-chloroethyl)ether	U		0.0106	0.393	1	04/04/2020 00:00	WG1455233
2,2-Oxybis(1-Chloropropane)	U		0.00898	0.393	1	04/04/2020 00:00	WG1455233
4-Bromophenyl-phenylether	U		0.0135	0.393	1	04/04/2020 00:00	WG1455233
2-Chloronaphthalene	U		0.00755	0.0393	1	04/04/2020 00:00	WG1455233
4-Chlorophenyl-phenylether	U		0.00740	0.393	1	04/04/2020 00:00	WG1455233
Chrysene	U		0.00655	0.0393	1	04/04/2020 00:00	WG1455233
Dibenz(a,h)anthracene	U		0.00970	0.0393	1	04/04/2020 00:00	WG1455233
3,3-Dichlorobenzidine	U		0.0938	0.393	1	04/04/2020 00:00	WG1455233
2,4-Dinitrotoluene	U		0.00717	0.393	1	04/04/2020 00:00	WG1455233
2,6-Dinitrotoluene	U		0.00870	0.393	1	04/04/2020 00:00	WG1455233
Fluoranthene	U		0.00586	0.0393	1	04/04/2020 00:00	WG1455233
Fluorene	U		0.00805	0.0393	1	04/04/2020 00:00	WG1455233
Hexachlorobenzene	U		0.0101	0.393	1	04/04/2020 00:00	WG1455233
Hexachloro-1,3-butadiene	U		0.0118	0.393	1	04/04/2020 00:00	WG1455233
Hexachlorocyclopentadiene	U		0.0693	0.393	1	04/04/2020 00:00	WG1455233
Hexachloroethane	U		0.0158	0.393	1	04/04/2020 00:00	WG1455233
Indeno(1,2,3-cd)pyrene	U		0.00912	0.0393	1	04/04/2020 00:00	WG1455233
Isophorone	U		0.00616	0.393	1	04/04/2020 00:00	WG1455233
Naphthalene	U		0.0105	0.0393	1	04/04/2020 00:00	WG1455233
Nitrobenzene	U		0.00821	0.393	1	04/04/2020 00:00	WG1455233
n-Nitrosodimethylamine	U		0.0764	0.393	1	04/04/2020 00:00	WG1455233
n-Nitrosodiphenylamine	U		0.106	0.393	1	04/04/2020 00:00	WG1455233
n-Nitrosodi-n-propylamine	U		0.0107	0.393	1	04/04/2020 00:00	WG1455233
Phenanthrene	U		0.00624	0.0393	1	04/04/2020 00:00	WG1455233
Benzylbutyl phthalate	U		0.0122	0.393	1	04/04/2020 00:00	WG1455233
Bis(2-ethylhexyl)phthalate	U		0.0142	0.393	1	04/04/2020 00:00	WG1455233
Di-n-butyl phthalate	U		0.0129	0.393	1	04/04/2020 00:00	WG1455233
Diethyl phthalate	U		0.00816	0.393	1	04/04/2020 00:00	WG1455233
Dimethyl phthalate	U		0.00638	0.393	1	04/04/2020 00:00	WG1455233
Di-n-octyl phthalate	U		0.0107	0.393	1	04/04/2020 00:00	WG1455233
Pyrene	U		0.0145	0.0393	1	04/04/2020 00:00	WG1455233
1,2,4-Trichlorobenzene	U		0.0103	0.393	1	04/04/2020 00:00	WG1455233
4-Chloro-3-methylphenol	U		0.00563	0.393	1	04/04/2020 00:00	WG1455233
2-Chlorophenol	U		0.00981	0.393	1	04/04/2020 00:00	WG1455233
2,4-Dichlorophenol	U		0.00881	0.393	1	04/04/2020 00:00	WG1455233
2,4-Dimethylphenol	U		0.0556	0.393	1	04/04/2020 00:00	WG1455233
4,6-Dinitro-2-methylphenol	U		0.146	0.393	1	04/04/2020 00:00	WG1455233
2,4-Dinitrophenol	U		0.116	0.393	1	04/04/2020 00:00	WG1455233
2-Nitrophenol	U		0.0154	0.393	1	04/04/2020 00:00	WG1455233
4-Nitrophenol	U		0.0620	0.393	1	04/04/2020 00:00	WG1455233
Pentachlorophenol	U		0.0567	0.393	1	04/04/2020 00:00	WG1455233
Phenol	U		0.00821	0.393	1	04/04/2020 00:00	WG1455233
2,4,6-Trichlorophenol	U		0.00920	0.393	1	04/04/2020 00:00	WG1455233
(S) 2-Fluorophenol	*67.1*			*12.0-120*		*04/04/2020 00:00*	WG1455233
(S) Phenol-d5	*57.7*			*10.0-120*		*04/04/2020 00:00*	WG1455233
(S) Nitrobenzene-d5	*56.8*			*10.0-122*		*04/04/2020 00:00*	WG1455233
(S) 2-Fluorobiphenyl	*61.9*			*15.0-120*		*04/04/2020 00:00*	WG1455233
(S) 2,4,6-Tribromophenol	*62.2*			*10.0-127*		*04/04/2020 00:00*	WG1455233
(S) p-Terphenyl-d14	*65.9*			*10.0-120*		*04/04/2020 00:00*	WG1455233

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000709	0.00709	1	03/30/2020 22:21	WG1452798
Acenaphthene	U		0.000709	0.00709	1	03/30/2020 22:21	WG1452798
Acenaphthylene	U		0.000709	0.00709	1	03/30/2020 22:21	WG1452798
Benzo(a)anthracene	U		0.000709	0.00709	1	03/30/2020 22:21	WG1452798
Benzo(a)pyrene	U		0.000709	0.00709	1	03/30/2020 22:21	WG1452798
Benzo(b)fluoranthene	U		0.000709	0.00709	1	03/30/2020 22:21	WG1452798
Benzo(g,h,i)perylene	0.000781	J	0.000709	0.00709	1	03/30/2020 22:21	WG1452798
Benzo(k)fluoranthene	U		0.000709	0.00709	1	03/30/2020 22:21	WG1452798
Chrysene	U		0.000709	0.00709	1	03/30/2020 22:21	WG1452798
Dibenz(a,h)anthracene	U		0.000709	0.00709	1	03/30/2020 22:21	WG1452798
Fluoranthene	U		0.000709	0.00709	1	03/30/2020 22:21	WG1452798
Fluorene	U		0.000709	0.00709	1	03/30/2020 22:21	WG1452798
Indeno(1,2,3-cd)pyrene	U		0.000709	0.00709	1	03/30/2020 22:21	WG1452798
Naphthalene	U		0.00236	0.0236	1	03/30/2020 22:21	WG1452798
Phenanthrene	U		0.000709	0.00709	1	03/30/2020 22:21	WG1452798
Pyrene	U		0.000709	0.00709	1	03/30/2020 22:21	WG1452798
1-Methylnaphthalene	U		0.00236	0.0236	1	03/30/2020 22:21	WG1452798
2-Methylnaphthalene	U		0.00236	0.0236	1	03/30/2020 22:21	WG1452798
2-Chloronaphthalene	U		0.00236	0.0236	1	03/30/2020 22:21	WG1452798
(S) Nitrobenzene-d5	*83.9*			*14.0-149*		*03/30/2020 22:21*	WG1452798
(S) 2-Fluorobiphenyl	*82.0*			*34.0-125*		*03/30/2020 22:21*	WG1452798
(S) p-Terphenyl-d14	*83.4*			*23.0-120*		*03/30/2020 22:21*	WG1452798

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	87.2		1	03/30/2020 16:52	WG1452627

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	su				
pH	8.30	T8	1	03/30/2020 13:00	WG1451984

Sample Narrative:
L1203485-11 WG1451984: 8.3 at 21.9C

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Mercury	0.0131	J	0.00321	0.0344	1	04/06/2020 08:03	WG1455936

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	6.66		0.528	2.29	1	03/30/2020 20:56	WG1452067
Barium	55.3		0.195	0.573	1	03/30/2020 20:56	WG1452067
Cadmium	0.136	J	0.0803	0.573	1	03/30/2020 20:56	WG1452067
Chromium	21.9		0.161	1.15	1	03/30/2020 20:56	WG1452067
Lead	12.9		0.218	0.573	1	03/30/2020 20:56	WG1452067
Selenium	U		0.711	2.29	1	03/30/2020 20:56	WG1452067
Silver	U		0.138	1.15	1	03/30/2020 20:56	WG1452067

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Acetone	U		0.0157	0.0287	1	03/29/2020 00:33	WG1452059
Acrylonitrile	U		0.00218	0.0143	1	03/29/2020 00:33	WG1452059
Benzene	U		0.000459	0.00115	1	03/29/2020 00:33	WG1452059
Bromobenzene	U		0.00120	0.0143	1	03/29/2020 00:33	WG1452059
Bromodichloromethane	U		0.000904	0.00287	1	03/29/2020 00:33	WG1452059
Bromoform	U		0.00686	0.0287	1	03/29/2020 00:33	WG1452059
Bromomethane	U		0.00424	0.0143	1	03/29/2020 00:33	WG1452059
n-Butylbenzene	U		0.00440	0.0143	1	03/29/2020 00:33	WG1452059
sec-Butylbenzene	U		0.00290	0.0143	1	03/29/2020 00:33	WG1452059
tert-Butylbenzene	U		0.00178	0.00573	1	03/29/2020 00:33	WG1452059
Carbon tetrachloride	U		0.00124	0.00573	1	03/29/2020 00:33	WG1452059
Chlorobenzene	U		0.000657	0.00287	1	03/29/2020 00:33	WG1452059
Chlorodibromomethane	U		0.000516	0.00287	1	03/29/2020 00:33	WG1452059
Chloroethane	U		0.00124	0.00573	1	03/29/2020 00:33	WG1452059
Chloroform	U		0.000476	0.00287	1	03/29/2020 00:33	WG1452059
Chloromethane	U		0.00159	0.0143	1	03/29/2020 00:33	WG1452059
2-Chlorotoluene	U		0.00106	0.00287	1	03/29/2020 00:33	WG1452059
4-Chlorotoluene	U		0.00130	0.00573	1	03/29/2020 00:33	WG1452059
1,2-Dibromo-3-Chloropropane	U		0.00585	0.0287	1	03/29/2020 00:33	WG1452059
1,2-Dibromoethane	U		0.000602	0.00287	1	03/29/2020 00:33	WG1452059
Dibromomethane	U		0.00115	0.00573	1	03/29/2020 00:33	WG1452059
1,2-Dichlorobenzene	U		0.00166	0.00573	1	03/29/2020 00:33	WG1452059
1,3-Dichlorobenzene	U		0.00195	0.00573	1	03/29/2020 00:33	WG1452059
1,4-Dichlorobenzene	U		0.00226	0.00573	1	03/29/2020 00:33	WG1452059
Dichlorodifluoromethane	U		0.000938	0.00287	1	03/29/2020 00:33	WG1452059

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethane	U		0.000659	0.00287	1	03/29/2020 00:33	WG1452059
1,2-Dichloroethane	U		0.000545	0.00287	1	03/29/2020 00:33	WG1452059
1,1-Dichloroethene	U		0.000573	0.00287	1	03/29/2020 00:33	WG1452059
cis-1,2-Dichloroethene	U		0.000791	0.00287	1	03/29/2020 00:33	WG1452059
trans-1,2-Dichloroethene	U		0.00164	0.00573	1	03/29/2020 00:33	WG1452059
1,2-Dichloropropane	U		0.00146	0.00573	1	03/29/2020 00:33	WG1452059
1,1-Dichloropropene	U		0.000803	0.00287	1	03/29/2020 00:33	WG1452059
1,3-Dichloropropane	U		0.00201	0.00573	1	03/29/2020 00:33	WG1452059
cis-1,3-Dichloropropene	U		0.000778	0.00287	1	03/29/2020 00:33	WG1452059
trans-1,3-Dichloropropene	U		0.00175	0.00573	1	03/29/2020 00:33	WG1452059
2,2-Dichloropropane	U		0.000909	0.00287	1	03/29/2020 00:33	WG1452059
Di-isopropyl ether	U		0.000401	0.00115	1	03/29/2020 00:33	WG1452059
Ethylbenzene	U		0.000608	0.00287	1	03/29/2020 00:33	WG1452059
Hexachloro-1,3-butadiene	U		0.0146	0.0287	1	03/29/2020 00:33	WG1452059
Isopropylbenzene	U		0.000990	0.00287	1	03/29/2020 00:33	WG1452059
p-Isopropyltoluene	U		0.00267	0.00573	1	03/29/2020 00:33	WG1452059
2-Butanone (MEK)	0.0214	B J	0.0143	0.0287	1	03/29/2020 00:33	WG1452059
Methylene Chloride	U		0.00761	0.0287	1	03/29/2020 00:33	WG1452059
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0287	1	03/29/2020 00:33	WG1452059
Methyl tert-butyl ether	U		0.000338	0.00115	1	03/29/2020 00:33	WG1452059
Naphthalene	U		0.00358	0.0143	1	03/29/2020 00:33	WG1452059
n-Propylbenzene	U		0.00135	0.00573	1	03/29/2020 00:33	WG1452059
Styrene	U		0.00313	0.0143	1	03/29/2020 00:33	WG1452059
1,1,1,2-Tetrachloroethane	U		0.000573	0.00287	1	03/29/2020 00:33	WG1452059
1,1,2,2-Tetrachloroethane	U		0.000447	0.00287	1	03/29/2020 00:33	WG1452059
1,1,2-Trichlorotrifluoroethane	U		0.000774	0.00287	1	03/29/2020 00:33	WG1452059
Tetrachloroethene	U		0.000803	0.00287	1	03/29/2020 00:33	WG1452059
Toluene	U		0.00143	0.00573	1	03/29/2020 00:33	WG1452059
1,2,3-Trichlorobenzene	U		0.000717	0.0143	1	03/29/2020 00:33	WG1452059
1,2,4-Trichlorobenzene	U		0.00553	0.0143	1	03/29/2020 00:33	WG1452059
1,1,1-Trichloroethane	U		0.000315	0.00287	1	03/29/2020 00:33	WG1452059
1,1,2-Trichloroethane	U		0.00101	0.00287	1	03/29/2020 00:33	WG1452059
Trichloroethene	U		0.000459	0.00115	1	03/29/2020 00:33	WG1452059
Trichlorofluoromethane	U		0.000573	0.00287	1	03/29/2020 00:33	WG1452059
1,2,3-Trichloropropane	U		0.00585	0.0143	1	03/29/2020 00:33	WG1452059
1,2,4-Trimethylbenzene	U		0.00133	0.00573	1	03/29/2020 00:33	WG1452059
1,2,3-Trimethylbenzene	U	J4	0.00132	0.00573	1	03/29/2020 00:33	WG1452059
1,3,5-Trimethylbenzene	U		0.00124	0.00573	1	03/29/2020 00:33	WG1452059
Vinyl chloride	U		0.000783	0.00287	1	03/29/2020 00:33	WG1452059
Xylenes, Total	U		0.00548	0.00745	1	03/29/2020 00:33	WG1452059
(S) Toluene-d8	*116*			*75.0-131*		*03/29/2020 00:33*	WG1452059
(S) 4-Bromofluorobenzene	*89.3*			*67.0-138*		*03/29/2020 00:33*	WG1452059
(S) 1,2-Dichloroethane-d4	*91.4*			*70.0-130*		*03/29/2020 00:33*	WG1452059

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00736	0.0382	1	04/04/2020 02:19	WG1455233
Acenaphthylene	U		0.00769	0.0382	1	04/04/2020 02:19	WG1455233
Anthracene	U		0.00725	0.0382	1	04/04/2020 02:19	WG1455233
Benzidine	U		0.0730	0.382	1	04/04/2020 02:19	WG1455233
Benzo(a)anthracene	U		0.00491	0.0382	1	04/04/2020 02:19	WG1455233
Benzo(b)fluoranthene	U		0.00797	0.0382	1	04/04/2020 02:19	WG1455233
Benzo(k)fluoranthene	U		0.00667	0.0382	1	04/04/2020 02:19	WG1455233
Benzo(g,h,i)perylene	U		0.00827	0.0382	1	04/04/2020 02:19	WG1455233
Benzo(a)pyrene	U		0.00628	0.0382	1	04/04/2020 02:19	WG1455233

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Bis(2-chlorethoxy)methane	U		0.00883	0.382	1	04/04/2020 02:19	WG1455233
Bis(2-chloroethyl)ether	U		0.0103	0.382	1	04/04/2020 02:19	WG1455233
2,2-Oxybis(1-Chloropropane)	U		0.00872	0.382	1	04/04/2020 02:19	WG1455233
4-Bromophenyl-phenylether	U		0.0131	0.382	1	04/04/2020 02:19	WG1455233
2-Chloronaphthalene	U		0.00733	0.0382	1	04/04/2020 02:19	WG1455233
4-Chlorophenyl-phenylether	U		0.00719	0.382	1	04/04/2020 02:19	WG1455233
Chrysene	U		0.00636	0.0382	1	04/04/2020 02:19	WG1455233
Dibenz(a,h)anthracene	U		0.00941	0.0382	1	04/04/2020 02:19	WG1455233
3,3-Dichlorobenzidine	U		0.0911	0.382	1	04/04/2020 02:19	WG1455233
2,4-Dinitrotoluene	U		0.00696	0.382	1	04/04/2020 02:19	WG1455233
2,6-Dinitrotoluene	U		0.00845	0.382	1	04/04/2020 02:19	WG1455233
Fluoranthene	U		0.00569	0.0382	1	04/04/2020 02:19	WG1455233
Fluorene	U		0.00782	0.0382	1	04/04/2020 02:19	WG1455233
Hexachlorobenzene	U		0.00982	0.382	1	04/04/2020 02:19	WG1455233
Hexachloro-1,3-butadiene	U		0.0115	0.382	1	04/04/2020 02:19	WG1455233
Hexachlorocyclopentadiene	U		0.0673	0.382	1	04/04/2020 02:19	WG1455233
Hexachloroethane	U		0.0154	0.382	1	04/04/2020 02:19	WG1455233
Indeno(1,2,3-cd)pyrene	U		0.00885	0.0382	1	04/04/2020 02:19	WG1455233
Isophorone	U		0.00599	0.382	1	04/04/2020 02:19	WG1455233
Naphthalene	U		0.0102	0.0382	1	04/04/2020 02:19	WG1455233
Nitrobenzene	U		0.00797	0.382	1	04/04/2020 02:19	WG1455233
n-Nitrosodimethylamine	U		0.0742	0.382	1	04/04/2020 02:19	WG1455233
n-Nitrosodiphenylamine	U		0.103	0.382	1	04/04/2020 02:19	WG1455233
n-Nitrosodi-n-propylamine	U		0.0104	0.382	1	04/04/2020 02:19	WG1455233
Phenanthrene	U		0.00605	0.0382	1	04/04/2020 02:19	WG1455233
Benzylbutyl phthalate	U		0.0118	0.382	1	04/04/2020 02:19	WG1455233
Bis(2-ethylhexyl)phthalate	U		0.0138	0.382	1	04/04/2020 02:19	WG1455233
Di-n-butyl phthalate	U		0.0125	0.382	1	04/04/2020 02:19	WG1455233
Diethyl phthalate	U		0.00792	0.382	1	04/04/2020 02:19	WG1455233
Dimethyl phthalate	U		0.00619	0.382	1	04/04/2020 02:19	WG1455233
Di-n-octyl phthalate	U		0.0104	0.382	1	04/04/2020 02:19	WG1455233
Pyrene	U		0.0141	0.0382	1	04/04/2020 02:19	WG1455233
1,2,4-Trichlorobenzene	U		0.0100	0.382	1	04/04/2020 02:19	WG1455233
4-Chloro-3-methylphenol	U		0.00547	0.382	1	04/04/2020 02:19	WG1455233
2-Chlorophenol	U		0.00953	0.382	1	04/04/2020 02:19	WG1455233
2,4-Dichlorophenol	U		0.00855	0.382	1	04/04/2020 02:19	WG1455233
2,4-Dimethylphenol	U		0.0540	0.382	1	04/04/2020 02:19	WG1455233
4,6-Dinitro-2-methylphenol	U		0.142	0.382	1	04/04/2020 02:19	WG1455233
2,4-Dinitrophenol	U		0.112	0.382	1	04/04/2020 02:19	WG1455233
2-Nitrophenol	U		0.0149	0.382	1	04/04/2020 02:19	WG1455233
4-Nitrophenol	U		0.0602	0.382	1	04/04/2020 02:19	WG1455233
Pentachlorophenol	U		0.0550	0.382	1	04/04/2020 02:19	WG1455233
Phenol	U		0.00797	0.382	1	04/04/2020 02:19	WG1455233
2,4,6-Trichlorophenol	U		0.00893	0.382	1	04/04/2020 02:19	WG1455233
(S) 2-Fluorophenol	*65.2*			*12.0-120*		*04/04/2020 02:19*	WG1455233
(S) Phenol-d5	*58.0*			*10.0-120*		*04/04/2020 02:19*	WG1455233
(S) Nitrobenzene-d5	*56.7*			*10.0-122*		*04/04/2020 02:19*	WG1455233
(S) 2-Fluorobiphenyl	*59.8*			*15.0-120*		*04/04/2020 02:19*	WG1455233
(S) 2,4,6-Tribromophenol	*65.6*			*10.0-127*		*04/04/2020 02:19*	WG1455233
(S) p-Terphenyl-d14	*66.9*			*10.0-120*		*04/04/2020 02:19*	WG1455233

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

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000688	0.00688	1	03/30/2020 22:42	WG1452798
Acenaphthene	U		0.000688	0.00688	1	03/30/2020 22:42	WG1452798
Acenaphthylene	U		0.000688	0.00688	1	03/30/2020 22:42	WG1452798
Benzo(a)anthracene	0.000716	J	0.000688	0.00688	1	03/30/2020 22:42	WG1452798
Benzo(a)pyrene	U		0.000688	0.00688	1	03/30/2020 22:42	WG1452798
Benzo(b)fluoranthene	U		0.000688	0.00688	1	03/30/2020 22:42	WG1452798
Benzo(g,h,i)perylene	0.000862	J	0.000688	0.00688	1	03/30/2020 22:42	WG1452798
Benzo(k)fluoranthene	U		0.000688	0.00688	1	03/30/2020 22:42	WG1452798
Chrysene	U		0.000688	0.00688	1	03/30/2020 22:42	WG1452798
Dibenz(a,h)anthracene	0.000753	J	0.000688	0.00688	1	03/30/2020 22:42	WG1452798
Fluoranthene	U		0.000688	0.00688	1	03/30/2020 22:42	WG1452798
Fluorene	U		0.000688	0.00688	1	03/30/2020 22:42	WG1452798
Indeno(1,2,3-cd)pyrene	0.000709	J	0.000688	0.00688	1	03/30/2020 22:42	WG1452798
Naphthalene	U		0.00229	0.0229	1	03/30/2020 22:42	WG1452798
Phenanthrene	U		0.000688	0.00688	1	03/30/2020 22:42	WG1452798
Pyrene	U		0.000688	0.00688	1	03/30/2020 22:42	WG1452798
1-Methylnaphthalene	U		0.00229	0.0229	1	03/30/2020 22:42	WG1452798
2-Methylnaphthalene	U		0.00229	0.0229	1	03/30/2020 22:42	WG1452798
2-Chloronaphthalene	U		0.00229	0.0229	1	03/30/2020 22:42	WG1452798
(S) Nitrobenzene-d5	*83.2*			*14.0-149*		*03/30/2020 22:42*	WG1452798
(S) 2-Fluorobiphenyl	*82.8*			*34.0-125*		*03/30/2020 22:42*	WG1452798
(S) p-Terphenyl-d14	*82.5*			*23.0-120*		*03/30/2020 22:42*	WG1452798

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	69.3		1	03/30/2020 16:52	WG1452627

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	su				
pH	7.83	T8	1	03/30/2020 13:00	WG1451984

Sample Narrative:

L1203485-12 WG1451984: 7.83 at 21.2C

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Mercury	0.686		0.00404	0.0433	1	04/06/2020 08:05	WG1455936

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	16.0		0.664	2.89	1	03/30/2020 20:59	WG1452067
Barium	179		0.245	0.722	1	03/30/2020 20:59	WG1452067
Cadmium	0.204	J	0.101	0.722	1	03/30/2020 20:59	WG1452067
Chromium	21.4		0.202	1.44	1	03/30/2020 20:59	WG1452067
Lead	46.3		0.274	0.722	1	03/30/2020 20:59	WG1452067
Selenium	U		0.895	2.89	1	03/30/2020 20:59	WG1452067
Silver	U		0.173	1.44	1	03/30/2020 20:59	WG1452067

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Acetone	U		0.0198	0.0361	1	03/29/2020 00:51	WG1452059
Acrylonitrile	U		0.00274	0.0180	1	03/29/2020 00:51	WG1452059
Benzene	0.00677		0.000577	0.00144	1	03/29/2020 00:51	WG1452059
Bromobenzene	U		0.00152	0.0180	1	03/29/2020 00:51	WG1452059
Bromodichloromethane	U		0.00114	0.00361	1	03/29/2020 00:51	WG1452059
Bromoform	U		0.00863	0.0361	1	03/29/2020 00:51	WG1452059
Bromomethane	U		0.00534	0.0180	1	03/29/2020 00:51	WG1452059
n-Butylbenzene	U		0.00554	0.0180	1	03/29/2020 00:51	WG1452059
sec-Butylbenzene	U		0.00365	0.0180	1	03/29/2020 00:51	WG1452059
tert-Butylbenzene	U		0.00224	0.00722	1	03/29/2020 00:51	WG1452059
Carbon tetrachloride	U		0.00156	0.00722	1	03/29/2020 00:51	WG1452059
Chlorobenzene	U		0.000827	0.00361	1	03/29/2020 00:51	WG1452059
Chlorodibromomethane	U		0.000649	0.00361	1	03/29/2020 00:51	WG1452059
Chloroethane	U		0.00156	0.00722	1	03/29/2020 00:51	WG1452059
Chloroform	U		0.000599	0.00361	1	03/29/2020 00:51	WG1452059
Chloromethane	U		0.00201	0.0180	1	03/29/2020 00:51	WG1452059
2-Chlorotoluene	U		0.00133	0.00361	1	03/29/2020 00:51	WG1452059
4-Chlorotoluene	U		0.00163	0.00722	1	03/29/2020 00:51	WG1452059
1,2-Dibromo-3-Chloropropane	U		0.00736	0.0361	1	03/29/2020 00:51	WG1452059
1,2-Dibromoethane	U		0.000758	0.00361	1	03/29/2020 00:51	WG1452059
Dibromomethane	U		0.00144	0.00722	1	03/29/2020 00:51	WG1452059
1,2-Dichlorobenzene	U		0.00209	0.00722	1	03/29/2020 00:51	WG1452059
1,3-Dichlorobenzene	U		0.00245	0.00722	1	03/29/2020 00:51	WG1452059
1,4-Dichlorobenzene	U		0.00284	0.00722	1	03/29/2020 00:51	WG1452059
Dichlorodifluoromethane	U		0.00118	0.00361	1	03/29/2020 00:51	WG1452059

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethane	U		0.000830	0.00361	1	03/29/2020 00:51	WG1452059
1,2-Dichloroethane	U		0.000685	0.00361	1	03/29/2020 00:51	WG1452059
1,1-Dichloroethene	U		0.000722	0.00361	1	03/29/2020 00:51	WG1452059
cis-1,2-Dichloroethene	U		0.000996	0.00361	1	03/29/2020 00:51	WG1452059
trans-1,2-Dichloroethene	U		0.00206	0.00722	1	03/29/2020 00:51	WG1452059
1,2-Dichloropropane	U		0.00183	0.00722	1	03/29/2020 00:51	WG1452059
1,1-Dichloropropene	U		0.00101	0.00361	1	03/29/2020 00:51	WG1452059
1,3-Dichloropropane	U		0.00253	0.00722	1	03/29/2020 00:51	WG1452059
cis-1,3-Dichloropropene	U		0.000978	0.00361	1	03/29/2020 00:51	WG1452059
trans-1,3-Dichloropropene	U		0.00221	0.00722	1	03/29/2020 00:51	WG1452059
2,2-Dichloropropane	U		0.00114	0.00361	1	03/29/2020 00:51	WG1452059
Di-isopropyl ether	U		0.000505	0.00144	1	03/29/2020 00:51	WG1452059
Ethylbenzene	U		0.000765	0.00361	1	03/29/2020 00:51	WG1452059
Hexachloro-1,3-butadiene	U		0.0183	0.0361	1	03/29/2020 00:51	WG1452059
Isopropylbenzene	U		0.00125	0.00361	1	03/29/2020 00:51	WG1452059
p-Isopropyltoluene	U		0.00336	0.00722	1	03/29/2020 00:51	WG1452059
2-Butanone (MEK)	0.0517	B	0.0180	0.0361	1	03/29/2020 00:51	WG1452059
Methylene Chloride	U		0.00958	0.0361	1	03/29/2020 00:51	WG1452059
4-Methyl-2-pentanone (MIBK)	U		0.0144	0.0361	1	03/29/2020 00:51	WG1452059
Methyl tert-butyl ether	U		0.000426	0.00144	1	03/29/2020 00:51	WG1452059
Naphthalene	U		0.00450	0.0180	1	03/29/2020 00:51	WG1452059
n-Propylbenzene	U		0.00170	0.00722	1	03/29/2020 00:51	WG1452059
Styrene	U		0.00394	0.0180	1	03/29/2020 00:51	WG1452059
1,1,1,2-Tetrachloroethane	U		0.000722	0.00361	1	03/29/2020 00:51	WG1452059
1,1,2,2-Tetrachloroethane	U		0.000563	0.00361	1	03/29/2020 00:51	WG1452059
1,1,2-Trichlorotrifluoroethane	U		0.000974	0.00361	1	03/29/2020 00:51	WG1452059
Tetrachloroethene	U		0.00101	0.00361	1	03/29/2020 00:51	WG1452059
Toluene	0.0810		0.00180	0.00722	1	03/29/2020 00:51	WG1452059
1,2,3-Trichlorobenzene	U		0.000902	0.0180	1	03/29/2020 00:51	WG1452059
1,2,4-Trichlorobenzene	U		0.00696	0.0180	1	03/29/2020 00:51	WG1452059
1,1,1-Trichloroethane	U		0.000397	0.00361	1	03/29/2020 00:51	WG1452059
1,1,2-Trichloroethane	U		0.00127	0.00361	1	03/29/2020 00:51	WG1452059
Trichloroethene	U		0.000577	0.00144	1	03/29/2020 00:51	WG1452059
Trichlorofluoromethane	U		0.000722	0.00361	1	03/29/2020 00:51	WG1452059
1,2,3-Trichloropropane	U		0.00736	0.0180	1	03/29/2020 00:51	WG1452059
1,2,4-Trimethylbenzene	U		0.00167	0.00722	1	03/29/2020 00:51	WG1452059
1,2,3-Trimethylbenzene	U	J4	0.00166	0.00722	1	03/29/2020 00:51	WG1452059
1,3,5-Trimethylbenzene	U		0.00156	0.00722	1	03/29/2020 00:51	WG1452059
Vinyl chloride	U		0.000986	0.00361	1	03/29/2020 00:51	WG1452059
Xylenes, Total	U		0.00690	0.00938	1	03/29/2020 00:51	WG1452059
(S) Toluene-d8	*115*			*75.0-131*		*03/29/2020 00:51*	WG1452059
(S) 4-Bromofluorobenzene	*91.1*			*67.0-138*		*03/29/2020 00:51*	WG1452059
(S) 1,2-Dichloroethane-d4	*90.2*			*70.0-130*		*03/29/2020 00:51*	WG1452059

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	0.0109	J	0.00926	0.0481	1	04/04/2020 04:37	WG1455233
Acenaphthylene	U		0.00968	0.0481	1	04/04/2020 04:37	WG1455233
Anthracene	0.0218	J	0.00912	0.0481	1	04/04/2020 04:37	WG1455233
Benzidine	U		0.0919	0.481	1	04/04/2020 04:37	WG1455233
Benzo(a)anthracene	0.0235	J	0.00618	0.0481	1	04/04/2020 04:37	WG1455233
Benzo(b)fluoranthene	0.0152	J	0.0100	0.0481	1	04/04/2020 04:37	WG1455233
Benzo(k)fluoranthene	U		0.00840	0.0481	1	04/04/2020 04:37	WG1455233
Benzo(g,h,i)perylene	U		0.0104	0.0481	1	04/04/2020 04:37	WG1455233
Benzo(a)pyrene	0.0160	J	0.00791	0.0481	1	04/04/2020 04:37	WG1455233

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Bis(2-chlorethoxy)methane	U		0.0111	0.481	1	04/04/2020 04:37	WG1455233
Bis(2-chloroethyl)ether	U		0.0129	0.481	1	04/04/2020 04:37	WG1455233
2,2-Oxybis(1-Chloropropane)	U		0.0110	0.481	1	04/04/2020 04:37	WG1455233
4-Bromophenyl-phenylether	U		0.0165	0.481	1	04/04/2020 04:37	WG1455233
2-Chloronaphthalene	U		0.00922	0.0481	1	04/04/2020 04:37	WG1455233
4-Chlorophenyl-phenylether	U		0.00905	0.481	1	04/04/2020 04:37	WG1455233
Chrysene	0.0154	J	0.00801	0.0481	1	04/04/2020 04:37	WG1455233
Dibenz(a,h)anthracene	U		0.0118	0.0481	1	04/04/2020 04:37	WG1455233
3,3-Dichlorobenzidine	U		0.115	0.481	1	04/04/2020 04:37	WG1455233
2,4-Dinitrotoluene	U		0.00876	0.481	1	04/04/2020 04:37	WG1455233
2,6-Dinitrotoluene	U		0.0106	0.481	1	04/04/2020 04:37	WG1455233
Fluoranthene	0.0494		0.00716	0.0481	1	04/04/2020 04:37	WG1455233
Fluorene	0.0175	J	0.00984	0.0481	1	04/04/2020 04:37	WG1455233
Hexachlorobenzene	U		0.0124	0.481	1	04/04/2020 04:37	WG1455233
Hexachloro-1,3-butadiene	U		0.0144	0.481	1	04/04/2020 04:37	WG1455233
Hexachlorocyclopentadiene	U		0.0847	0.481	1	04/04/2020 04:37	WG1455233
Hexachloroethane	U		0.0193	0.481	1	04/04/2020 04:37	WG1455233
Indeno(1,2,3-cd)pyrene	U		0.0111	0.0481	1	04/04/2020 04:37	WG1455233
Isophorone	U		0.00753	0.481	1	04/04/2020 04:37	WG1455233
Naphthalene	0.0135	J	0.0128	0.0481	1	04/04/2020 04:37	WG1455233
Nitrobenzene	U		0.0100	0.481	1	04/04/2020 04:37	WG1455233
n-Nitrosodimethylamine	U		0.0934	0.481	1	04/04/2020 04:37	WG1455233
n-Nitrosodiphenylamine	U		0.130	0.481	1	04/04/2020 04:37	WG1455233
n-Nitrosodi-n-propylamine	U		0.0131	0.481	1	04/04/2020 04:37	WG1455233
Phenanthrene	0.0776		0.00762	0.0481	1	04/04/2020 04:37	WG1455233
Benzylbutyl phthalate	U		0.0149	0.481	1	04/04/2020 04:37	WG1455233
Bis(2-ethylhexyl)phthalate	U		0.0173	0.481	1	04/04/2020 04:37	WG1455233
Di-n-butyl phthalate	U		0.0157	0.481	1	04/04/2020 04:37	WG1455233
Diethyl phthalate	U		0.00997	0.481	1	04/04/2020 04:37	WG1455233
Dimethyl phthalate	U		0.00779	0.481	1	04/04/2020 04:37	WG1455233
Di-n-octyl phthalate	U		0.0131	0.481	1	04/04/2020 04:37	WG1455233
Pyrene	0.0382	J	0.0178	0.0481	1	04/04/2020 04:37	WG1455233
1,2,4-Trichlorobenzene	U		0.0126	0.481	1	04/04/2020 04:37	WG1455233
4-Chloro-3-methylphenol	U		0.00688	0.481	1	04/04/2020 04:37	WG1455233
2-Chlorophenol	U		0.0120	0.481	1	04/04/2020 04:37	WG1455233
2,4-Dichlorophenol	U		0.0108	0.481	1	04/04/2020 04:37	WG1455233
2,4-Dimethylphenol	U		0.0680	0.481	1	04/04/2020 04:37	WG1455233
4,6-Dinitro-2-methylphenol	U		0.179	0.481	1	04/04/2020 04:37	WG1455233
2,4-Dinitrophenol	U		0.141	0.481	1	04/04/2020 04:37	WG1455233
2-Nitrophenol	U		0.0188	0.481	1	04/04/2020 04:37	WG1455233
4-Nitrophenol	U		0.0758	0.481	1	04/04/2020 04:37	WG1455233
Pentachlorophenol	U		0.0693	0.481	1	04/04/2020 04:37	WG1455233
Phenol	U		0.0100	0.481	1	04/04/2020 04:37	WG1455233
2,4,6-Trichlorophenol	U		0.0112	0.481	1	04/04/2020 04:37	WG1455233
(S) 2-Fluorophenol	*64.7*			*12.0-120*		*04/04/2020 04:37*	WG1455233
(S) Phenol-d5	*59.9*			*10.0-120*		*04/04/2020 04:37*	WG1455233
(S) Nitrobenzene-d5	*50.2*			*10.0-122*		*04/04/2020 04:37*	WG1455233
(S) 2-Fluorobiphenyl	*55.2*			*15.0-120*		*04/04/2020 04:37*	WG1455233
(S) 2,4,6-Tribromophenol	*66.7*			*10.0-127*		*04/04/2020 04:37*	WG1455233
(S) p-Terphenyl-d14	*58.4*			*10.0-120*		*04/04/2020 04:37*	WG1455233

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000866	0.00866	1	03/30/2020 23:02	WG1452798
Acenaphthene	U		0.000866	0.00866	1	03/30/2020 23:02	WG1452798
Acenaphthylene	U		0.000866	0.00866	1	03/30/2020 23:02	WG1452798
Benzo(a)anthracene	0.00188	J	0.000866	0.00866	1	03/30/2020 23:02	WG1452798
Benzo(a)pyrene	0.00147	J	0.000866	0.00866	1	03/30/2020 23:02	WG1452798
Benzo(b)fluoranthene	0.00165	J	0.000866	0.00866	1	03/30/2020 23:02	WG1452798
Benzo(g,h,i)perylene	0.00133	J	0.000866	0.00866	1	03/30/2020 23:02	WG1452798
Benzo(k)fluoranthene	0.00103	J	0.000866	0.00866	1	03/30/2020 23:02	WG1452798
Chrysene	0.00143	J	0.000866	0.00866	1	03/30/2020 23:02	WG1452798
Dibenz(a,h)anthracene	0.000973	J	0.000866	0.00866	1	03/30/2020 23:02	WG1452798
Fluoranthene	0.00235	J	0.000866	0.00866	1	03/30/2020 23:02	WG1452798
Fluorene	U		0.000866	0.00866	1	03/30/2020 23:02	WG1452798
Indeno(1,2,3-cd)pyrene	0.00127	J	0.000866	0.00866	1	03/30/2020 23:02	WG1452798
Naphthalene	0.00514	J	0.00289	0.0289	1	03/30/2020 23:02	WG1452798
Phenanthrene	0.00247	J	0.000866	0.00866	1	03/30/2020 23:02	WG1452798
Pyrene	0.00209	J	0.000866	0.00866	1	03/30/2020 23:02	WG1452798
1-Methylnaphthalene	U		0.00289	0.0289	1	03/30/2020 23:02	WG1452798
2-Methylnaphthalene	U		0.00289	0.0289	1	03/30/2020 23:02	WG1452798
2-Chloronaphthalene	U		0.00289	0.0289	1	03/30/2020 23:02	WG1452798
(S) Nitrobenzene-d5	*82.3*			*14.0-149*		*03/30/2020 23:02*	WG1452798
(S) 2-Fluorobiphenyl	*79.3*			*34.0-125*		*03/30/2020 23:02*	WG1452798
(S) p-Terphenyl-d14	*82.3*			*23.0-120*		*03/30/2020 23:02*	WG1452798

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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	87.3		1	03/30/2020 16:52	WG1452627

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	su				
pH	8.36	T8	1	03/30/2020 13:00	WG1451984

Sample Narrative:

L1203485-13 WG1451984: 8.36 at 21C

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Mercury	0.102		0.00321	0.0344	1	04/06/2020 08:07	WG1455936

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	5.81		0.527	2.29	1	03/30/2020 19:59	WG1452067
Barium	69.1	O1	0.195	0.573	1	03/30/2020 19:59	WG1452067
Cadmium	0.149	J	0.0802	0.573	1	03/30/2020 19:59	WG1452067
Chromium	18.9	O1	0.160	1.15	1	03/30/2020 19:59	WG1452067
Lead	15.7	O1	0.218	0.573	1	03/30/2020 19:59	WG1452067
Selenium	U		0.710	2.29	1	03/30/2020 19:59	WG1452067
Silver	U		0.137	1.15	1	03/30/2020 19:59	WG1452067

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Acetone	U		0.0157	0.0286	1	03/29/2020 01:10	WG1452059
Acrylonitrile	U		0.00218	0.0143	1	03/29/2020 01:10	WG1452059
Benzene	U		0.000458	0.00115	1	03/29/2020 01:10	WG1452059
Bromobenzene	U		0.00120	0.0143	1	03/29/2020 01:10	WG1452059
Bromodichloromethane	U		0.000903	0.00286	1	03/29/2020 01:10	WG1452059
Bromoform	U		0.00685	0.0286	1	03/29/2020 01:10	WG1452059
Bromomethane	U		0.00424	0.0143	1	03/29/2020 01:10	WG1452059
n-Butylbenzene	U		0.00440	0.0143	1	03/29/2020 01:10	WG1452059
sec-Butylbenzene	U		0.00290	0.0143	1	03/29/2020 01:10	WG1452059
tert-Butylbenzene	U		0.00178	0.00573	1	03/29/2020 01:10	WG1452059
Carbon tetrachloride	U		0.00124	0.00573	1	03/29/2020 01:10	WG1452059
Chlorobenzene	U		0.000657	0.00286	1	03/29/2020 01:10	WG1452059
Chlorodibromomethane	U		0.000516	0.00286	1	03/29/2020 01:10	WG1452059
Chloroethane	U		0.00124	0.00573	1	03/29/2020 01:10	WG1452059
Chloroform	U		0.000476	0.00286	1	03/29/2020 01:10	WG1452059
Chloromethane	U		0.00159	0.0143	1	03/29/2020 01:10	WG1452059
2-Chlorotoluene	U		0.00105	0.00286	1	03/29/2020 01:10	WG1452059
4-Chlorotoluene	U		0.00129	0.00573	1	03/29/2020 01:10	WG1452059
1,2-Dibromo-3-Chloropropane	U		0.00584	0.0286	1	03/29/2020 01:10	WG1452059
1,2-Dibromoethane	U		0.000602	0.00286	1	03/29/2020 01:10	WG1452059
Dibromomethane	U		0.00115	0.00573	1	03/29/2020 01:10	WG1452059
1,2-Dichlorobenzene	U		0.00166	0.00573	1	03/29/2020 01:10	WG1452059
1,3-Dichlorobenzene	U		0.00195	0.00573	1	03/29/2020 01:10	WG1452059
1,4-Dichlorobenzene	U		0.00226	0.00573	1	03/29/2020 01:10	WG1452059
Dichlorodifluoromethane	U		0.000937	0.00286	1	03/29/2020 01:10	WG1452059

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethane	U		0.000659	0.00286	1	03/29/2020 01:10	WG1452059
1,2-Dichloroethane	U		0.000544	0.00286	1	03/29/2020 01:10	WG1452059
1,1-Dichloroethene	U		0.000573	0.00286	1	03/29/2020 01:10	WG1452059
cis-1,2-Dichloroethene	U		0.000791	0.00286	1	03/29/2020 01:10	WG1452059
trans-1,2-Dichloroethene	U		0.00164	0.00573	1	03/29/2020 01:10	WG1452059
1,2-Dichloropropane	U		0.00146	0.00573	1	03/29/2020 01:10	WG1452059
1,1-Dichloropropene	U		0.000802	0.00286	1	03/29/2020 01:10	WG1452059
1,3-Dichloropropane	U		0.00201	0.00573	1	03/29/2020 01:10	WG1452059
cis-1,3-Dichloropropene	U		0.000777	0.00286	1	03/29/2020 01:10	WG1452059
trans-1,3-Dichloropropene	U		0.00175	0.00573	1	03/29/2020 01:10	WG1452059
2,2-Dichloropropane	U		0.000909	0.00286	1	03/29/2020 01:10	WG1452059
Di-isopropyl ether	U		0.000401	0.00115	1	03/29/2020 01:10	WG1452059
Ethylbenzene	U		0.000607	0.00286	1	03/29/2020 01:10	WG1452059
Hexachloro-1,3-butadiene	U		0.0146	0.0286	1	03/29/2020 01:10	WG1452059
Isopropylbenzene	U		0.000989	0.00286	1	03/29/2020 01:10	WG1452059
p-Isopropyltoluene	U		0.00267	0.00573	1	03/29/2020 01:10	WG1452059
2-Butanone (MEK)	0.0351	B	0.0143	0.0286	1	03/29/2020 01:10	WG1452059
Methylene Chloride	U		0.00761	0.0286	1	03/29/2020 01:10	WG1452059
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0286	1	03/29/2020 01:10	WG1452059
Methyl tert-butyl ether	U		0.000338	0.00115	1	03/29/2020 01:10	WG1452059
Naphthalene	U		0.00357	0.0143	1	03/29/2020 01:10	WG1452059
n-Propylbenzene	U		0.00135	0.00573	1	03/29/2020 01:10	WG1452059
Styrene	U		0.00313	0.0143	1	03/29/2020 01:10	WG1452059
1,1,1,2-Tetrachloroethane	U		0.000573	0.00286	1	03/29/2020 01:10	WG1452059
1,1,2,2-Tetrachloroethane	U		0.000447	0.00286	1	03/29/2020 01:10	WG1452059
1,1,2-Trichlorotrifluoroethane	U		0.000773	0.00286	1	03/29/2020 01:10	WG1452059
Tetrachloroethene	U		0.000802	0.00286	1	03/29/2020 01:10	WG1452059
Toluene	U		0.00143	0.00573	1	03/29/2020 01:10	WG1452059
1,2,3-Trichlorobenzene	U		0.000716	0.0143	1	03/29/2020 01:10	WG1452059
1,2,4-Trichlorobenzene	U		0.00552	0.0143	1	03/29/2020 01:10	WG1452059
1,1,1-Trichloroethane	U		0.000315	0.00286	1	03/29/2020 01:10	WG1452059
1,1,2-Trichloroethane	U		0.00101	0.00286	1	03/29/2020 01:10	WG1452059
Trichloroethene	U		0.000458	0.00115	1	03/29/2020 01:10	WG1452059
Trichlorofluoromethane	U		0.000573	0.00286	1	03/29/2020 01:10	WG1452059
1,2,3-Trichloropropane	U		0.00584	0.0143	1	03/29/2020 01:10	WG1452059
1,2,4-Trimethylbenzene	U		0.00133	0.00573	1	03/29/2020 01:10	WG1452059
1,2,3-Trimethylbenzene	U	J4	0.00132	0.00573	1	03/29/2020 01:10	WG1452059
1,3,5-Trimethylbenzene	U		0.00124	0.00573	1	03/29/2020 01:10	WG1452059
Vinyl chloride	U		0.000783	0.00286	1	03/29/2020 01:10	WG1452059
Xylenes, Total	U		0.00548	0.00745	1	03/29/2020 01:10	WG1452059
(S) Toluene-d8	*115*			*75.0-131*		*03/29/2020 01:10*	WG1452059
(S) 4-Bromofluorobenzene	*90.3*			*67.0-138*		*03/29/2020 01:10*	WG1452059
(S) 1,2-Dichloroethane-d4	*90.7*			*70.0-130*		*03/29/2020 01:10*	WG1452059

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00736	0.0382	1	04/04/2020 02:42	WG1455233
Acenaphthylene	U		0.00769	0.0382	1	04/04/2020 02:42	WG1455233
Anthracene	U		0.00724	0.0382	1	04/04/2020 02:42	WG1455233
Benzidine	U		0.0730	0.382	1	04/04/2020 02:42	WG1455233
Benzo(a)anthracene	U		0.00490	0.0382	1	04/04/2020 02:42	WG1455233
Benzo(b)fluoranthene	U		0.00796	0.0382	1	04/04/2020 02:42	WG1455233
Benzo(k)fluoranthene	U		0.00667	0.0382	1	04/04/2020 02:42	WG1455233
Benzo(g,h,i)perylene	U		0.00826	0.0382	1	04/04/2020 02:42	WG1455233
Benzo(a)pyrene	U		0.00628	0.0382	1	04/04/2020 02:42	WG1455233

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Bis(2-chlorethoxy)methane	U		0.00882	0.382	1	04/04/2020 02:42	WG1455233
Bis(2-chloroethyl)ether	U		0.0103	0.382	1	04/04/2020 02:42	WG1455233
2,2-Oxybis(1-Chloropropane)	U		0.00871	0.382	1	04/04/2020 02:42	WG1455233
4-Bromophenyl-phenylether	U		0.0131	0.382	1	04/04/2020 02:42	WG1455233
2-Chloronaphthalene	U		0.00732	0.0382	1	04/04/2020 02:42	WG1455233
4-Chlorophenyl-phenylether	U		0.00718	0.382	1	04/04/2020 02:42	WG1455233
Chrysene	U		0.00636	0.0382	1	04/04/2020 02:42	WG1455233
Dibenz(a,h)anthracene	U		0.00941	0.0382	1	04/04/2020 02:42	WG1455233
3,3-Dichlorobenzidine	U		0.0910	0.382	1	04/04/2020 02:42	WG1455233
2,4-Dinitrotoluene	U		0.00695	0.382	1	04/04/2020 02:42	WG1455233
2,6-Dinitrotoluene	U		0.00844	0.382	1	04/04/2020 02:42	WG1455233
Fluoranthene	U		0.00568	0.0382	1	04/04/2020 02:42	WG1455233
Fluorene	U		0.00781	0.0382	1	04/04/2020 02:42	WG1455233
Hexachlorobenzene	U		0.00981	0.382	1	04/04/2020 02:42	WG1455233
Hexachloro-1,3-butadiene	U		0.0115	0.382	1	04/04/2020 02:42	WG1455233
Hexachlorocyclopentadiene	U		0.0673	0.382	1	04/04/2020 02:42	WG1455233
Hexachloroethane	U		0.0154	0.382	1	04/04/2020 02:42	WG1455233
Indeno(1,2,3-cd)pyrene	U		0.00885	0.0382	1	04/04/2020 02:42	WG1455233
Isophorone	U		0.00598	0.382	1	04/04/2020 02:42	WG1455233
Naphthalene	U		0.0102	0.0382	1	04/04/2020 02:42	WG1455233
Nitrobenzene	U		0.00796	0.382	1	04/04/2020 02:42	WG1455233
n-Nitrosodimethylamine	U		0.0741	0.382	1	04/04/2020 02:42	WG1455233
n-Nitrosodiphenylamine	U		0.103	0.382	1	04/04/2020 02:42	WG1455233
n-Nitrosodi-n-propylamine	U		0.0104	0.382	1	04/04/2020 02:42	WG1455233
Phenanthrene	0.0134	J	0.00605	0.0382	1	04/04/2020 02:42	WG1455233
Benzylbutyl phthalate	U		0.0118	0.382	1	04/04/2020 02:42	WG1455233
Bis(2-ethylhexyl)phthalate	U		0.0137	0.382	1	04/04/2020 02:42	WG1455233
Di-n-butyl phthalate	U		0.0125	0.382	1	04/04/2020 02:42	WG1455233
Diethyl phthalate	U		0.00792	0.382	1	04/04/2020 02:42	WG1455233
Dimethyl phthalate	U		0.00619	0.382	1	04/04/2020 02:42	WG1455233
Di-n-octyl phthalate	U		0.0104	0.382	1	04/04/2020 02:42	WG1455233
Pyrene	U		0.0141	0.0382	1	04/04/2020 02:42	WG1455233
1,2,4-Trichlorobenzene	U		0.0100	0.382	1	04/04/2020 02:42	WG1455233
4-Chloro-3-methylphenol	U		0.00547	0.382	1	04/04/2020 02:42	WG1455233
2-Chlorophenol	U		0.00952	0.382	1	04/04/2020 02:42	WG1455233
2,4-Dichlorophenol	U		0.00855	0.382	1	04/04/2020 02:42	WG1455233
2,4-Dimethylphenol	U		0.0540	0.382	1	04/04/2020 02:42	WG1455233
4,6-Dinitro-2-methylphenol	U		0.142	0.382	1	04/04/2020 02:42	WG1455233
2,4-Dinitrophenol	U		0.112	0.382	1	04/04/2020 02:42	WG1455233
2-Nitrophenol	U		0.0149	0.382	1	04/04/2020 02:42	WG1455233
4-Nitrophenol	U		0.0602	0.382	1	04/04/2020 02:42	WG1455233
Pentachlorophenol	U		0.0550	0.382	1	04/04/2020 02:42	WG1455233
Phenol	U		0.00796	0.382	1	04/04/2020 02:42	WG1455233
2,4,6-Trichlorophenol	U		0.00893	0.382	1	04/04/2020 02:42	WG1455233
(S) 2-Fluorophenol	*64.9*			*12.0-120*		*04/04/2020 02:42*	WG1455233
(S) Phenol-d5	*58.2*			*10.0-120*		*04/04/2020 02:42*	WG1455233
(S) Nitrobenzene-d5	*57.6*			*10.0-122*		*04/04/2020 02:42*	WG1455233
(S) 2-Fluorobiphenyl	*59.8*			*15.0-120*		*04/04/2020 02:42*	WG1455233
(S) 2,4,6-Tribromophenol	*66.4*			*10.0-127*		*04/04/2020 02:42*	WG1455233
(S) p-Terphenyl-d14	*64.7*			*10.0-120*		*04/04/2020 02:42*	WG1455233

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.000809	J	0.000687	0.00687	1	03/30/2020 23:23	WG1452798
Acenaphthene	U		0.000687	0.00687	1	03/30/2020 23:23	WG1452798
Acenaphthylene	U		0.000687	0.00687	1	03/30/2020 23:23	WG1452798
Benzo(a)anthracene	0.00274	J	0.000687	0.00687	1	03/30/2020 23:23	WG1452798
Benzo(a)pyrene	0.00182	J	0.000687	0.00687	1	03/30/2020 23:23	WG1452798
Benzo(b)fluoranthene	0.00205	J	0.000687	0.00687	1	03/30/2020 23:23	WG1452798
Benzo(g,h,i)perylene	0.00126	J	0.000687	0.00687	1	03/30/2020 23:23	WG1452798
Benzo(k)fluoranthene	0.00111	J	0.000687	0.00687	1	03/30/2020 23:23	WG1452798
Chrysene	0.00237	J	0.000687	0.00687	1	03/30/2020 23:23	WG1452798
Dibenz(a,h)anthracene	0.000795	J	0.000687	0.00687	1	03/30/2020 23:23	WG1452798
Fluoranthene	0.00445	J	0.000687	0.00687	1	03/30/2020 23:23	WG1452798
Fluorene	U		0.000687	0.00687	1	03/30/2020 23:23	WG1452798
Indeno(1,2,3-cd)pyrene	0.00106	J	0.000687	0.00687	1	03/30/2020 23:23	WG1452798
Naphthalene	U		0.00229	0.0229	1	03/30/2020 23:23	WG1452798
Phenanthrene	0.00862		0.000687	0.00687	1	03/30/2020 23:23	WG1452798
Pyrene	0.00362	J	0.000687	0.00687	1	03/30/2020 23:23	WG1452798
1-Methylnaphthalene	U		0.00229	0.0229	1	03/30/2020 23:23	WG1452798
2-Methylnaphthalene	U		0.00229	0.0229	1	03/30/2020 23:23	WG1452798
2-Chloronaphthalene	U		0.00229	0.0229	1	03/30/2020 23:23	WG1452798
(S) Nitrobenzene-d5	*75.0*			*14.0-149*		*03/30/2020 23:23*	WG1452798
(S) 2-Fluorobiphenyl	*73.4*			*34.0-125*		*03/30/2020 23:23*	WG1452798
(S) p-Terphenyl-d14	*76.0*			*23.0-120*		*03/30/2020 23:23*	WG1452798

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.7		1	03/30/2020 16:52	WG1452627

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.12	T8	1	03/30/2020 13:00	WG1451984

Sample Narrative:

L1203485-14 WG1451984: 8.12 at 21C

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0235	J	0.00356	0.0381	1	04/06/2020 08:09	WG1455936

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.52		0.584	2.54	1	03/30/2020 21:02	WG1452067
Barium	64.4		0.216	0.635	1	03/30/2020 21:02	WG1452067
Cadmium	U		0.0889	0.635	1	03/30/2020 21:02	WG1452067
Chromium	17.2		0.178	1.27	1	03/30/2020 21:02	WG1452067
Lead	15.2		0.241	0.635	1	03/30/2020 21:02	WG1452067
Selenium	U		0.788	2.54	1	03/30/2020 21:02	WG1452067
Silver	U		0.152	1.27	1	03/30/2020 21:02	WG1452067

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0174	0.0318	1	03/29/2020 01:29	WG1452059
Acrylonitrile	U		0.00241	0.0159	1	03/29/2020 01:29	WG1452059
Benzene	U		0.000508	0.00127	1	03/29/2020 01:29	WG1452059
Bromobenzene	U		0.00133	0.0159	1	03/29/2020 01:29	WG1452059
Bromodichloromethane	U		0.00100	0.00318	1	03/29/2020 01:29	WG1452059
Bromoform	U		0.00760	0.0318	1	03/29/2020 01:29	WG1452059
Bromomethane	U		0.00470	0.0159	1	03/29/2020 01:29	WG1452059
n-Butylbenzene	U		0.00488	0.0159	1	03/29/2020 01:29	WG1452059
sec-Butylbenzene	U		0.00321	0.0159	1	03/29/2020 01:29	WG1452059
tert-Butylbenzene	U		0.00197	0.00635	1	03/29/2020 01:29	WG1452059
Carbon tetrachloride	U		0.00137	0.00635	1	03/29/2020 01:29	WG1452059
Chlorobenzene	U		0.000728	0.00318	1	03/29/2020 01:29	WG1452059
Chlorodibromomethane	U		0.000572	0.00318	1	03/29/2020 01:29	WG1452059
Chloroethane	U		0.00137	0.00635	1	03/29/2020 01:29	WG1452059
Chloroform	U		0.000527	0.00318	1	03/29/2020 01:29	WG1452059
Chloromethane	U		0.00177	0.0159	1	03/29/2020 01:29	WG1452059
2-Chlorotoluene	U		0.00117	0.00318	1	03/29/2020 01:29	WG1452059
4-Chlorotoluene	U		0.00144	0.00635	1	03/29/2020 01:29	WG1452059
1,2-Dibromo-3-Chloropropane	U		0.00648	0.0318	1	03/29/2020 01:29	WG1452059
1,2-Dibromoethane	U		0.000667	0.00318	1	03/29/2020 01:29	WG1452059
Dibromomethane	U		0.00127	0.00635	1	03/29/2020 01:29	WG1452059
1,2-Dichlorobenzene	U		0.00184	0.00635	1	03/29/2020 01:29	WG1452059
1,3-Dichlorobenzene	U		0.00216	0.00635	1	03/29/2020 01:29	WG1452059
1,4-Dichlorobenzene	U		0.00250	0.00635	1	03/29/2020 01:29	WG1452059
Dichlorodifluoromethane	U		0.00104	0.00318	1	03/29/2020 01:29	WG1452059

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethane	U		0.000731	0.00318	1	03/29/2020 01:29	WG1452059
1,2-Dichloroethane	U		0.000604	0.00318	1	03/29/2020 01:29	WG1452059
1,1-Dichloroethene	U		0.000635	0.00318	1	03/29/2020 01:29	WG1452059
cis-1,2-Dichloroethene	U		0.000877	0.00318	1	03/29/2020 01:29	WG1452059
trans-1,2-Dichloroethene	U		0.00182	0.00635	1	03/29/2020 01:29	WG1452059
1,2-Dichloropropane	U		0.00161	0.00635	1	03/29/2020 01:29	WG1452059
1,1-Dichloropropene	U		0.000889	0.00318	1	03/29/2020 01:29	WG1452059
1,3-Dichloropropane	U		0.00222	0.00635	1	03/29/2020 01:29	WG1452059
cis-1,3-Dichloropropene	U		0.000861	0.00318	1	03/29/2020 01:29	WG1452059
trans-1,3-Dichloropropene	U		0.00194	0.00635	1	03/29/2020 01:29	WG1452059
2,2-Dichloropropane	U		0.00101	0.00318	1	03/29/2020 01:29	WG1452059
Di-isopropyl ether	U		0.000445	0.00127	1	03/29/2020 01:29	WG1452059
Ethylbenzene	U		0.000673	0.00318	1	03/29/2020 01:29	WG1452059
Hexachloro-1,3-butadiene	U		0.0161	0.0318	1	03/29/2020 01:29	WG1452059
Isopropylbenzene	U		0.00110	0.00318	1	03/29/2020 01:29	WG1452059
p-Isopropyltoluene	U		0.00296	0.00635	1	03/29/2020 01:29	WG1452059
2-Butanone (MEK)	0.0474	B	0.0159	0.0318	1	03/29/2020 01:29	WG1452059
Methylene Chloride	U		0.00844	0.0318	1	03/29/2020 01:29	WG1452059
4-Methyl-2-pentanone (MIBK)	U		0.0127	0.0318	1	03/29/2020 01:29	WG1452059
Methyl tert-butyl ether	U		0.000375	0.00127	1	03/29/2020 01:29	WG1452059
Naphthalene	U		0.00396	0.0159	1	03/29/2020 01:29	WG1452059
n-Propylbenzene	U		0.00150	0.00635	1	03/29/2020 01:29	WG1452059
Styrene	U		0.00347	0.0159	1	03/29/2020 01:29	WG1452059
1,1,1,2-Tetrachloroethane	U		0.000635	0.00318	1	03/29/2020 01:29	WG1452059
1,1,2,2-Tetrachloroethane	U		0.000496	0.00318	1	03/29/2020 01:29	WG1452059
1,1,2-Trichlorotrifluoroethane	U		0.000858	0.00318	1	03/29/2020 01:29	WG1452059
Tetrachloroethene	U		0.000889	0.00318	1	03/29/2020 01:29	WG1452059
Toluene	U		0.00159	0.00635	1	03/29/2020 01:29	WG1452059
1,2,3-Trichlorobenzene	U		0.000794	0.0159	1	03/29/2020 01:29	WG1452059
1,2,4-Trichlorobenzene	U		0.00612	0.0159	1	03/29/2020 01:29	WG1452059
1,1,1-Trichloroethane	U		0.000349	0.00318	1	03/29/2020 01:29	WG1452059
1,1,2-Trichloroethane	U		0.00112	0.00318	1	03/29/2020 01:29	WG1452059
Trichloroethene	U		0.000508	0.00127	1	03/29/2020 01:29	WG1452059
Trichlorofluoromethane	U		0.000635	0.00318	1	03/29/2020 01:29	WG1452059
1,2,3-Trichloropropane	U		0.00648	0.0159	1	03/29/2020 01:29	WG1452059
1,2,4-Trimethylbenzene	U		0.00147	0.00635	1	03/29/2020 01:29	WG1452059
1,2,3-Trimethylbenzene	U	J4	0.00146	0.00635	1	03/29/2020 01:29	WG1452059
1,3,5-Trimethylbenzene	U		0.00137	0.00635	1	03/29/2020 01:29	WG1452059
Vinyl chloride	U		0.000868	0.00318	1	03/29/2020 01:29	WG1452059
Xylenes, Total	U		0.00607	0.00826	1	03/29/2020 01:29	WG1452059
(S) Toluene-d8	*112*			*75.0-131*		*03/29/2020 01:29*	WG1452059
(S) 4-Bromofluorobenzene	*91.3*			*67.0-138*		*03/29/2020 01:29*	WG1452059
(S) 1,2-Dichloroethane-d4	*92.3*			*70.0-130*		*03/29/2020 01:29*	WG1452059

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00816	0.0423	1	04/04/2020 03:05	WG1455233
Acenaphthylene	U		0.00853	0.0423	1	04/04/2020 03:05	WG1455233
Anthracene	U		0.00803	0.0423	1	04/04/2020 03:05	WG1455233
Benzidine	U		0.0809	0.423	1	04/04/2020 03:05	WG1455233
Benzo(a)anthracene	U		0.00544	0.0423	1	04/04/2020 03:05	WG1455233
Benzo(b)fluoranthene	U		0.00883	0.0423	1	04/04/2020 03:05	WG1455233
Benzo(k)fluoranthene	U		0.00739	0.0423	1	04/04/2020 03:05	WG1455233
Benzo(g,h,i)perylene	U		0.00916	0.0423	1	04/04/2020 03:05	WG1455233
Benzo(a)pyrene	U		0.00696	0.0423	1	04/04/2020 03:05	WG1455233

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Bis(2-chlorethoxy)methane	U		0.00978	0.423	1	04/04/2020 03:05	WG1455233
Bis(2-chloroethyl)ether	U		0.0114	0.423	1	04/04/2020 03:05	WG1455233
2,2-Oxybis(1-Chloropropane)	U		0.00966	0.423	1	04/04/2020 03:05	WG1455233
4-Bromophenyl-phenylether	U		0.0145	0.423	1	04/04/2020 03:05	WG1455233
2-Chloronaphthalene	U		0.00812	0.0423	1	04/04/2020 03:05	WG1455233
4-Chlorophenyl-phenylether	U		0.00797	0.423	1	04/04/2020 03:05	WG1455233
Chrysene	U		0.00705	0.0423	1	04/04/2020 03:05	WG1455233
Dibenz(a,h)anthracene	U		0.0104	0.0423	1	04/04/2020 03:05	WG1455233
3,3-Dichlorobenzidine	U		0.101	0.423	1	04/04/2020 03:05	WG1455233
2,4-Dinitrotoluene	U		0.00771	0.423	1	04/04/2020 03:05	WG1455233
2,6-Dinitrotoluene	U		0.00936	0.423	1	04/04/2020 03:05	WG1455233
Fluoranthene	U		0.00630	0.0423	1	04/04/2020 03:05	WG1455233
Fluorene	U		0.00866	0.0423	1	04/04/2020 03:05	WG1455233
Hexachlorobenzene	U		0.0109	0.423	1	04/04/2020 03:05	WG1455233
Hexachloro-1,3-butadiene	U		0.0127	0.423	1	04/04/2020 03:05	WG1455233
Hexachlorocyclopentadiene	U		0.0746	0.423	1	04/04/2020 03:05	WG1455233
Hexachloroethane	U		0.0170	0.423	1	04/04/2020 03:05	WG1455233
Indeno(1,2,3-cd)pyrene	U		0.00981	0.0423	1	04/04/2020 03:05	WG1455233
Isophorone	U		0.00663	0.423	1	04/04/2020 03:05	WG1455233
Naphthalene	U		0.0113	0.0423	1	04/04/2020 03:05	WG1455233
Nitrobenzene	U		0.00883	0.423	1	04/04/2020 03:05	WG1455233
n-Nitrosodimethylamine	U		0.0822	0.423	1	04/04/2020 03:05	WG1455233
n-Nitrosodiphenylamine	U		0.114	0.423	1	04/04/2020 03:05	WG1455233
n-Nitrosodi-n-propylamine	U		0.0115	0.423	1	04/04/2020 03:05	WG1455233
Phenanthrene	U		0.00671	0.0423	1	04/04/2020 03:05	WG1455233
Benzylbutyl phthalate	U		0.0131	0.423	1	04/04/2020 03:05	WG1455233
Bis(2-ethylhexyl)phthalate	U		0.0152	0.423	1	04/04/2020 03:05	WG1455233
Di-n-butyl phthalate	U		0.0138	0.423	1	04/04/2020 03:05	WG1455233
Diethyl phthalate	U		0.00878	0.423	1	04/04/2020 03:05	WG1455233
Dimethyl phthalate	U		0.00686	0.423	1	04/04/2020 03:05	WG1455233
Di-n-octyl phthalate	U		0.0115	0.423	1	04/04/2020 03:05	WG1455233
Pyrene	U		0.0156	0.0423	1	04/04/2020 03:05	WG1455233
1,2,4-Trichlorobenzene	U		0.0111	0.423	1	04/04/2020 03:05	WG1455233
4-Chloro-3-methylphenol	U		0.00606	0.423	1	04/04/2020 03:05	WG1455233
2-Chlorophenol	U		0.0106	0.423	1	04/04/2020 03:05	WG1455233
2,4-Dichlorophenol	U		0.00948	0.423	1	04/04/2020 03:05	WG1455233
2,4-Dimethylphenol	U		0.0598	0.423	1	04/04/2020 03:05	WG1455233
4,6-Dinitro-2-methylphenol	U		0.158	0.423	1	04/04/2020 03:05	WG1455233
2,4-Dinitrophenol	U		0.125	0.423	1	04/04/2020 03:05	WG1455233
2-Nitrophenol	U		0.0165	0.423	1	04/04/2020 03:05	WG1455233
4-Nitrophenol	U		0.0667	0.423	1	04/04/2020 03:05	WG1455233
Pentachlorophenol	U		0.0610	0.423	1	04/04/2020 03:05	WG1455233
Phenol	U		0.00883	0.423	1	04/04/2020 03:05	WG1455233
2,4,6-Trichlorophenol	U		0.00990	0.423	1	04/04/2020 03:05	WG1455233
(S) 2-Fluorophenol	*66.5*			*12.0-120*		*04/04/2020 03:05*	WG1455233
(S) Phenol-d5	*58.6*			*10.0-120*		*04/04/2020 03:05*	WG1455233
(S) Nitrobenzene-d5	*54.1*			*10.0-122*		*04/04/2020 03:05*	WG1455233
(S) 2-Fluorobiphenyl	*58.1*			*15.0-120*		*04/04/2020 03:05*	WG1455233
(S) 2,4,6-Tribromophenol	*67.0*			*10.0-127*		*04/04/2020 03:05*	WG1455233
(S) p-Terphenyl-d14	*63.3*			*10.0-120*		*04/04/2020 03:05*	WG1455233

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000762	0.00762	1	03/30/2020 23:43	WG1452798
Acenaphthene	U		0.000762	0.00762	1	03/30/2020 23:43	WG1452798
Acenaphthylene	U		0.000762	0.00762	1	03/30/2020 23:43	WG1452798
Benzo(a)anthracene	0.000922	J	0.000762	0.00762	1	03/30/2020 23:43	WG1452798
Benzo(a)pyrene	U		0.000762	0.00762	1	03/30/2020 23:43	WG1452798
Benzo(b)fluoranthene	0.000806	J	0.000762	0.00762	1	03/30/2020 23:43	WG1452798
Benzo(g,h,i)perylene	0.000945	J	0.000762	0.00762	1	03/30/2020 23:43	WG1452798
Benzo(k)fluoranthene	U		0.000762	0.00762	1	03/30/2020 23:43	WG1452798
Chrysene	U		0.000762	0.00762	1	03/30/2020 23:43	WG1452798
Dibenz(a,h)anthracene	0.000769	J	0.000762	0.00762	1	03/30/2020 23:43	WG1452798
Fluoranthene	0.00107	J	0.000762	0.00762	1	03/30/2020 23:43	WG1452798
Fluorene	U		0.000762	0.00762	1	03/30/2020 23:43	WG1452798
Indeno(1,2,3-cd)pyrene	0.000826	J	0.000762	0.00762	1	03/30/2020 23:43	WG1452798
Naphthalene	U		0.00254	0.0254	1	03/30/2020 23:43	WG1452798
Phenanthrene	0.00198	J	0.000762	0.00762	1	03/30/2020 23:43	WG1452798
Pyrene	0.000947	J	0.000762	0.00762	1	03/30/2020 23:43	WG1452798
1-Methylnaphthalene	U		0.00254	0.0254	1	03/30/2020 23:43	WG1452798
2-Methylnaphthalene	U		0.00254	0.0254	1	03/30/2020 23:43	WG1452798
2-Chloronaphthalene	U		0.00254	0.0254	1	03/30/2020 23:43	WG1452798
(S) Nitrobenzene-d5	*77.0*			*14.0-149*		*03/30/2020 23:43*	WG1452798
(S) 2-Fluorobiphenyl	*74.3*			*34.0-125*		*03/30/2020 23:43*	WG1452798
(S) p-Terphenyl-d14	*80.4*			*23.0-120*		*03/30/2020 23:43*	WG1452798

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	87.0		1	03/30/2020 16:52	WG1452627

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	su				
pH	8.22	T8	1	03/30/2020 13:00	WG1451984

Sample Narrative:

L1203485-15 WG1451984: 8.22 at 20.9C

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Mercury	0.00834	J	0.00322	0.0345	1	04/06/2020 08:15	WG1455936

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	2.56		0.529	2.30	1	03/30/2020 21:04	WG1452067
Barium	10.1		0.195	0.575	1	03/30/2020 21:04	WG1452067
Cadmium	U		0.0805	0.575	1	03/30/2020 21:04	WG1452067
Chromium	6.14		0.161	1.15	1	03/30/2020 21:04	WG1452067
Lead	6.51		0.218	0.575	1	03/30/2020 21:04	WG1452067
Selenium	U		0.713	2.30	1	03/30/2020 21:04	WG1452067
Silver	U		0.138	1.15	1	03/30/2020 21:04	WG1452067

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Acetone	U		0.0158	0.0287	1	03/29/2020 01:48	WG1452059
Acrylonitrile	U		0.00218	0.0144	1	03/29/2020 01:48	WG1452059
Benzene	U		0.000460	0.00115	1	03/29/2020 01:48	WG1452059
Bromobenzene	U		0.00121	0.0144	1	03/29/2020 01:48	WG1452059
Bromodichloromethane	U		0.000906	0.00287	1	03/29/2020 01:48	WG1452059
Bromoform	U		0.00688	0.0287	1	03/29/2020 01:48	WG1452059
Bromomethane	U		0.00425	0.0144	1	03/29/2020 01:48	WG1452059
n-Butylbenzene	U		0.00442	0.0144	1	03/29/2020 01:48	WG1452059
sec-Butylbenzene	U		0.00291	0.0144	1	03/29/2020 01:48	WG1452059
tert-Butylbenzene	U		0.00178	0.00575	1	03/29/2020 01:48	WG1452059
Carbon tetrachloride	U		0.00124	0.00575	1	03/29/2020 01:48	WG1452059
Chlorobenzene	U		0.000659	0.00287	1	03/29/2020 01:48	WG1452059
Chlorodibromomethane	U		0.000517	0.00287	1	03/29/2020 01:48	WG1452059
Chloroethane	U		0.00124	0.00575	1	03/29/2020 01:48	WG1452059
Chloroform	U		0.000477	0.00287	1	03/29/2020 01:48	WG1452059
Chloromethane	U		0.00160	0.0144	1	03/29/2020 01:48	WG1452059
2-Chlorotoluene	U		0.00106	0.00287	1	03/29/2020 01:48	WG1452059
4-Chlorotoluene	U		0.00130	0.00575	1	03/29/2020 01:48	WG1452059
1,2-Dibromo-3-Chloropropane	U		0.00586	0.0287	1	03/29/2020 01:48	WG1452059
1,2-Dibromoethane	U		0.000604	0.00287	1	03/29/2020 01:48	WG1452059
Dibromomethane	U		0.00115	0.00575	1	03/29/2020 01:48	WG1452059
1,2-Dichlorobenzene	U		0.00167	0.00575	1	03/29/2020 01:48	WG1452059
1,3-Dichlorobenzene	U		0.00195	0.00575	1	03/29/2020 01:48	WG1452059
1,4-Dichlorobenzene	U		0.00227	0.00575	1	03/29/2020 01:48	WG1452059
Dichlorodifluoromethane	U		0.000941	0.00287	1	03/29/2020 01:48	WG1452059

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethane	U		0.000661	0.00287	1	03/29/2020 01:48	WG1452059
1,2-Dichloroethane	U		0.000546	0.00287	1	03/29/2020 01:48	WG1452059
1,1-Dichloroethene	U		0.000575	0.00287	1	03/29/2020 01:48	WG1452059
cis-1,2-Dichloroethene	U		0.000793	0.00287	1	03/29/2020 01:48	WG1452059
trans-1,2-Dichloroethene	U		0.00164	0.00575	1	03/29/2020 01:48	WG1452059
1,2-Dichloropropane	U		0.00146	0.00575	1	03/29/2020 01:48	WG1452059
1,1-Dichloropropene	U		0.000805	0.00287	1	03/29/2020 01:48	WG1452059
1,3-Dichloropropane	U		0.00201	0.00575	1	03/29/2020 01:48	WG1452059
cis-1,3-Dichloropropene	U		0.000780	0.00287	1	03/29/2020 01:48	WG1452059
trans-1,3-Dichloropropene	U		0.00176	0.00575	1	03/29/2020 01:48	WG1452059
2,2-Dichloropropane	U		0.000912	0.00287	1	03/29/2020 01:48	WG1452059
Di-isopropyl ether	U		0.000402	0.00115	1	03/29/2020 01:48	WG1452059
Ethylbenzene	U		0.000609	0.00287	1	03/29/2020 01:48	WG1452059
Hexachloro-1,3-butadiene	U		0.0146	0.0287	1	03/29/2020 01:48	WG1452059
Isopropylbenzene	U		0.000992	0.00287	1	03/29/2020 01:48	WG1452059
p-Isopropyltoluene	U		0.00268	0.00575	1	03/29/2020 01:48	WG1452059
2-Butanone (MEK)	0.0214	B J	0.0144	0.0287	1	03/29/2020 01:48	WG1452059
Methylene Chloride	U	J3	0.00763	0.0287	1	03/29/2020 01:48	WG1452059
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0287	1	03/29/2020 01:48	WG1452059
Methyl tert-butyl ether	U		0.000339	0.00115	1	03/29/2020 01:48	WG1452059
Naphthalene	U		0.00359	0.0144	1	03/29/2020 01:48	WG1452059
n-Propylbenzene	U		0.00136	0.00575	1	03/29/2020 01:48	WG1452059
Styrene	U		0.00314	0.0144	1	03/29/2020 01:48	WG1452059
1,1,1,2-Tetrachloroethane	U		0.000575	0.00287	1	03/29/2020 01:48	WG1452059
1,1,2,2-Tetrachloroethane	U		0.000448	0.00287	1	03/29/2020 01:48	WG1452059
1,1,2-Trichlorotrifluoroethane	U		0.000776	0.00287	1	03/29/2020 01:48	WG1452059
Tetrachloroethene	U		0.000805	0.00287	1	03/29/2020 01:48	WG1452059
Toluene	U		0.00144	0.00575	1	03/29/2020 01:48	WG1452059
1,2,3-Trichlorobenzene	U		0.000719	0.0144	1	03/29/2020 01:48	WG1452059
1,2,4-Trichlorobenzene	U		0.00554	0.0144	1	03/29/2020 01:48	WG1452059
1,1,1-Trichloroethane	U		0.000316	0.00287	1	03/29/2020 01:48	WG1452059
1,1,2-Trichloroethane	U		0.00102	0.00287	1	03/29/2020 01:48	WG1452059
Trichloroethene	U		0.000460	0.00115	1	03/29/2020 01:48	WG1452059
Trichlorofluoromethane	U		0.000575	0.00287	1	03/29/2020 01:48	WG1452059
1,2,3-Trichloropropane	U		0.00586	0.0144	1	03/29/2020 01:48	WG1452059
1,2,4-Trimethylbenzene	U		0.00133	0.00575	1	03/29/2020 01:48	WG1452059
1,2,3-Trimethylbenzene	U	J4	0.00132	0.00575	1	03/29/2020 01:48	WG1452059
1,3,5-Trimethylbenzene	U		0.00124	0.00575	1	03/29/2020 01:48	WG1452059
Vinyl chloride	U		0.000785	0.00287	1	03/29/2020 01:48	WG1452059
Xylenes, Total	U		0.00550	0.00747	1	03/29/2020 01:48	WG1452059
(S) Toluene-d8	*114*			*75.0-131*		*03/29/2020 01:48*	WG1452059
(S) 4-Bromofluorobenzene	*91.6*			*67.0-138*		*03/29/2020 01:48*	WG1452059
(S) 1,2-Dichloroethane-d4	*90.3*			*70.0-130*		*03/29/2020 01:48*	WG1452059

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00738	0.0383	1	04/04/2020 00:23	WG1455233
Acenaphthylene	U		0.00772	0.0383	1	04/04/2020 00:23	WG1455233
Anthracene	U		0.00727	0.0383	1	04/04/2020 00:23	WG1455233
Benzidine	U		0.0732	0.383	1	04/04/2020 00:23	WG1455233
Benzo(a)anthracene	U		0.00492	0.0383	1	04/04/2020 00:23	WG1455233
Benzo(b)fluoranthene	U		0.00799	0.0383	1	04/04/2020 00:23	WG1455233
Benzo(k)fluoranthene	U		0.00669	0.0383	1	04/04/2020 00:23	WG1455233
Benzo(g,h,i)perylene	U		0.00829	0.0383	1	04/04/2020 00:23	WG1455233
Benzo(a)pyrene	U		0.00630	0.0383	1	04/04/2020 00:23	WG1455233

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Bis(2-chlorethoxy)methane	U		0.00885	0.383	1	04/04/2020 00:23	WG1455233
Bis(2-chloroethyl)ether	U		0.0103	0.383	1	04/04/2020 00:23	WG1455233
2,2-Oxybis(1-Chloropropane)	U		0.00874	0.383	1	04/04/2020 00:23	WG1455233
4-Bromophenyl-phenylether	U		0.0131	0.383	1	04/04/2020 00:23	WG1455233
2-Chloronaphthalene	U		0.00735	0.0383	1	04/04/2020 00:23	WG1455233
4-Chlorophenyl-phenylether	U		0.00721	0.383	1	04/04/2020 00:23	WG1455233
Chrysene	U		0.00638	0.0383	1	04/04/2020 00:23	WG1455233
Dibenz(a,h)anthracene	U		0.00944	0.0383	1	04/04/2020 00:23	WG1455233
3,3-Dichlorobenzidine	U		0.0913	0.383	1	04/04/2020 00:23	WG1455233
2,4-Dinitrotoluene	U		0.00698	0.383	1	04/04/2020 00:23	WG1455233
2,6-Dinitrotoluene	U		0.00847	0.383	1	04/04/2020 00:23	WG1455233
Fluoranthene	U		0.00570	0.0383	1	04/04/2020 00:23	WG1455233
Fluorene	U		0.00784	0.0383	1	04/04/2020 00:23	WG1455233
Hexachlorobenzene	U		0.00984	0.383	1	04/04/2020 00:23	WG1455233
Hexachloro-1,3-butadiene	U		0.0115	0.383	1	04/04/2020 00:23	WG1455233
Hexachlorocyclopentadiene	U		0.0675	0.383	1	04/04/2020 00:23	WG1455233
Hexachloroethane	U		0.0154	0.383	1	04/04/2020 00:23	WG1455233
Indeno(1,2,3-cd)pyrene	U		0.00888	0.0383	1	04/04/2020 00:23	WG1455233
Isophorone	U		0.00600	0.383	1	04/04/2020 00:23	WG1455233
Naphthalene	U		0.0102	0.0383	1	04/04/2020 00:23	WG1455233
Nitrobenzene	U		0.00799	0.383	1	04/04/2020 00:23	WG1455233
n-Nitrosodimethylamine	U		0.0744	0.383	1	04/04/2020 00:23	WG1455233
n-Nitrosodiphenylamine	U		0.103	0.383	1	04/04/2020 00:23	WG1455233
n-Nitrosodi-n-propylamine	U		0.0104	0.383	1	04/04/2020 00:23	WG1455233
Phenanthrene	U		0.00607	0.0383	1	04/04/2020 00:23	WG1455233
Benzylbutyl phthalate	U		0.0118	0.383	1	04/04/2020 00:23	WG1455233
Bis(2-ethylhexyl)phthalate	U		0.0138	0.383	1	04/04/2020 00:23	WG1455233
Di-n-butyl phthalate	U		0.0125	0.383	1	04/04/2020 00:23	WG1455233
Diethyl phthalate	U		0.00795	0.383	1	04/04/2020 00:23	WG1455233
Dimethyl phthalate	U		0.00621	0.383	1	04/04/2020 00:23	WG1455233
Di-n-octyl phthalate	U		0.0104	0.383	1	04/04/2020 00:23	WG1455233
Pyrene	U		0.0141	0.0383	1	04/04/2020 00:23	WG1455233
1,2,4-Trichlorobenzene	U		0.0101	0.383	1	04/04/2020 00:23	WG1455233
4-Chloro-3-methylphenol	U		0.00548	0.383	1	04/04/2020 00:23	WG1455233
2-Chlorophenol	U		0.00955	0.383	1	04/04/2020 00:23	WG1455233
2,4-Dichlorophenol	U		0.00858	0.383	1	04/04/2020 00:23	WG1455233
2,4-Dimethylphenol	U		0.0542	0.383	1	04/04/2020 00:23	WG1455233
4,6-Dinitro-2-methylphenol	U		0.143	0.383	1	04/04/2020 00:23	WG1455233
2,4-Dinitrophenol	U		0.113	0.383	1	04/04/2020 00:23	WG1455233
2-Nitrophenol	U		0.0149	0.383	1	04/04/2020 00:23	WG1455233
4-Nitrophenol	U		0.0604	0.383	1	04/04/2020 00:23	WG1455233
Pentachlorophenol	U		0.0552	0.383	1	04/04/2020 00:23	WG1455233
Phenol	U		0.00799	0.383	1	04/04/2020 00:23	WG1455233
2,4,6-Trichlorophenol	U		0.00896	0.383	1	04/04/2020 00:23	WG1455233
(S) 2-Fluorophenol	*62.0*			*12.0-120*		*04/04/2020 00:23*	WG1455233
(S) Phenol-d5	*53.2*			*10.0-120*		*04/04/2020 00:23*	WG1455233
(S) Nitrobenzene-d5	*53.3*			*10.0-122*		*04/04/2020 00:23*	WG1455233
(S) 2-Fluorobiphenyl	*56.2*			*15.0-120*		*04/04/2020 00:23*	WG1455233
(S) 2,4,6-Tribromophenol	*60.6*			*10.0-127*		*04/04/2020 00:23*	WG1455233
(S) p-Terphenyl-d14	*60.3*			*10.0-120*		*04/04/2020 00:23*	WG1455233

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000690	0.00690	1	03/31/2020 00:45	WG1452798
Acenaphthene	U		0.000690	0.00690	1	03/31/2020 00:45	WG1452798
Acenaphthylene	U		0.000690	0.00690	1	03/31/2020 00:45	WG1452798
Benzo(a)anthracene	U		0.000690	0.00690	1	03/31/2020 00:45	WG1452798
Benzo(a)pyrene	0.000730	J	0.000690	0.00690	1	03/31/2020 00:45	WG1452798
Benzo(b)fluoranthene	0.000693	J	0.000690	0.00690	1	03/31/2020 00:45	WG1452798
Benzo(g,h,i)perylene	0.00129	J	0.000690	0.00690	1	03/31/2020 00:45	WG1452798
Benzo(k)fluoranthene	0.000774	J	0.000690	0.00690	1	03/31/2020 00:45	WG1452798
Chrysene	U		0.000690	0.00690	1	03/31/2020 00:45	WG1452798
Dibenz(a,h)anthracene	0.00112	J	0.000690	0.00690	1	03/31/2020 00:45	WG1452798
Fluoranthene	U		0.000690	0.00690	1	03/31/2020 00:45	WG1452798
Fluorene	U		0.000690	0.00690	1	03/31/2020 00:45	WG1452798
Indeno(1,2,3-cd)pyrene	0.00111	J	0.000690	0.00690	1	03/31/2020 00:45	WG1452798
Naphthalene	U		0.00230	0.0230	1	03/31/2020 00:45	WG1452798
Phenanthrene	U		0.000690	0.00690	1	03/31/2020 00:45	WG1452798
Pyrene	U		0.000690	0.00690	1	03/31/2020 00:45	WG1452798
1-Methylnaphthalene	U		0.00230	0.0230	1	03/31/2020 00:45	WG1452798
2-Methylnaphthalene	U		0.00230	0.0230	1	03/31/2020 00:45	WG1452798
2-Chloronaphthalene	U		0.00230	0.0230	1	03/31/2020 00:45	WG1452798
(S) Nitrobenzene-d5	*79.9*			*14.0-149*		*03/31/2020 00:45*	WG1452798
(S) 2-Fluorobiphenyl	*78.8*			*34.0-125*		*03/31/2020 00:45*	WG1452798
(S) p-Terphenyl-d14	*83.3*			*23.0-120*		*03/31/2020 00:45*	WG1452798

Method Blank (MB)

(MB) R3514597-1 03/31/20 18:46

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00600			

L1203485-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1203485-02 03/31/20 18:46 • (DUP) R3514597-3 03/31/20 18:46

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	90.1	89.3	1	0.841		10

Laboratory Control Sample (LCS)

(LCS) R3514597-2 03/31/20 18:46

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	49.9	99.8	85.0-115	

Method Blank (MB)

(MB) R3514198-1 03/30/20 16:52

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1203485-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1203485-13 03/30/20 16:52 • (DUP) R3514198-3 03/30/20 16:52

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	87.3	84.7	1	2.99		10

Laboratory Control Sample (LCS)

(LCS) R3514198-2 03/30/20 16:52

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

L1203477-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1203477-01 03/30/20 13:00 • (DUP) R3513925-2 03/30/20 13:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.19	7.87	1	9.03	J3	1

Sample Narrative:
OS: 7.19 at 21.6C
DUP: 7.87 at 21.5C

L1203506-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1203506-01 03/30/20 13:00 • (DUP) R3513925-3 03/30/20 13:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	6.94	7.03	1	1.29	J3	1

Sample Narrative:
OS: 6.94 at 22.2C
DUP: 7.03 at 21.7C

Laboratory Control Sample (LCS)

(LCS) R3513925-1 03/30/20 13:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:
LCS: 10.04 at 19.2C

Method Blank (MB)

(MB) R3515797-1 04/06/20 07:52

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.00280	0.0300

Laboratory Control Sample (LCS)

(LCS) R3515797-2 04/06/20 07:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.500	0.497	99.3	80.0-120	

L1203485-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1203485-09 04/06/20 07:56 • (MS) R3515797-3 04/06/20 07:57 • (MSD) R3515797-4 04/06/20 07:59

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.602	0.131	0.708	0.675	95.8	90.3	1	75.0-125			4.79	20

Method Blank (MB)

(MB) R3514118-1 03/30/20 19:54

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.460	2.00
Barium	U		0.170	0.500
Cadmium	U		0.0700	0.500
Chromium	U		0.140	1.00
Lead	U		0.190	0.500
Selenium	U		0.620	2.00
Silver	U		0.120	1.00

Laboratory Control Sample (LCS)

(LCS) R3514118-2 03/30/20 19:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	95.1	95.1	80.0-120	
Barium	100	101	101	80.0-120	
Cadmium	100	97.0	97.0	80.0-120	
Chromium	100	100	100	80.0-120	
Lead	100	98.3	98.3	80.0-120	
Selenium	100	97.0	97.0	80.0-120	
Silver	20.0	18.3	91.5	80.0-120	

L1203485-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1203485-13 03/30/20 19:59 • (MS) R3514118-5 03/30/20 20:06 • (MSD) R3514118-6 03/30/20 20:09

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	115	5.81	111	112	91.6	93.1	1	75.0-125			1.47	20
Barium	115	69.1	177	173	93.9	90.7	1	75.0-125			2.06	20
Cadmium	115	0.149	109	111	94.6	96.4	1	75.0-125			1.79	20
Chromium	115	18.9	129	132	96.1	98.5	1	75.0-125			2.16	20
Lead	115	15.7	127	131	96.9	101	1	75.0-125			3.48	20
Selenium	115	U	105	107	91.5	93.6	1	75.0-125			2.29	20
Silver	22.9	U	20.9	21.3	91.3	92.9	1	75.0-125			1.76	20

Method Blank (MB)

(MB) R3513578-2 03/28/20 18:01

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000400	0.00100
Ethylbenzene	U		0.000530	0.00250
Methyl tert-butyl ether	U		0.000295	0.00100
Toluene	U		0.00125	0.00500
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*116*			*75.0-131*
(S) 4-Bromofluorobenzene	*87.9*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3513578-1 03/28/20 17:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.107	85.6	70.0-123	
Ethylbenzene	0.125	0.0988	79.0	74.0-126	
Methyl tert-butyl ether	0.125	0.132	106	66.0-132	
Toluene	0.125	0.106	84.8	75.0-121	
Xylenes, Total	0.375	0.284	75.7	72.0-127	
(S) Toluene-d8			*106*	*75.0-131*	
(S) 4-Bromofluorobenzene			*90.6*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*114*	*70.0-130*	

L1203485-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1203485-04 03/29/20 01:59 • (MS) R3513578-3 03/29/20 03:54 • (MSD) R3513578-4 03/29/20 04:14

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0818	U	0.0588	0.0390	71.9	47.7	1	10.0-149		J3	40.4	37
Ethylbenzene	0.0818	U	0.0541	0.0374	66.1	45.7	1	10.0-160			36.5	38
Methyl tert-butyl ether	0.0818	U	0.0632	0.0454	77.2	55.4	1	11.0-147			32.8	35
Toluene	0.0818	U	0.0625	0.0419	76.4	51.2	1	10.0-156		J3	39.6	38
Xylenes, Total	0.246	U	0.162	0.112	66.1	45.6	1	10.0-160			36.6	38
(S) Toluene-d8					*106*	*110*		*75.0-131*				
(S) 4-Bromofluorobenzene					*87.7*	*96.6*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*108*	*107*		*70.0-130*				

Method Blank (MB)

(MB) R3515056-2 03/28/20 23:55

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
Isopropylbenzene	U		0.000863	0.00250

Method Blank (MB)

(MB) R3515056-2 03/28/20 23:55

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	0.0217	J	0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.0125
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*116*			*75.0-131*
(S) 4-Bromofluorobenzene	*89.9*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*88.8*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3515056-1 03/28/20 22:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.112	17.9	10.0-160	
Acrylonitrile	0.625	0.557	89.1	45.0-153	
Benzene	0.125	0.104	83.2	70.0-123	
Bromobenzene	0.125	0.123	98.4	73.0-121	
Bromodichloromethane	0.125	0.108	86.4	73.0-121	

Laboratory Control Sample (LCS)

(LCS) R3515056-1 03/28/20 22:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromoform	0.125	0.107	85.6	64.0-132	
Bromomethane	0.125	0.0997	79.8	56.0-147	
n-Butylbenzene	0.125	0.0855	68.4	68.0-135	
sec-Butylbenzene	0.125	0.105	84.0	74.0-130	
tert-Butylbenzene	0.125	0.104	83.2	75.0-127	
Carbon tetrachloride	0.125	0.108	86.4	66.0-128	
Chlorobenzene	0.125	0.111	88.8	76.0-128	
Chlorodibromomethane	0.125	0.100	80.0	74.0-127	
Chloroethane	0.125	0.111	88.8	61.0-134	
Chloroform	0.125	0.120	96.0	72.0-123	
Chloromethane	0.125	0.111	88.8	51.0-138	
2-Chlorotoluene	0.125	0.105	84.0	75.0-124	
4-Chlorotoluene	0.125	0.111	88.8	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.0999	79.9	59.0-130	
1,2-Dibromoethane	0.125	0.109	87.2	74.0-128	
Dibromomethane	0.125	0.100	80.0	75.0-122	
1,2-Dichlorobenzene	0.125	0.103	82.4	76.0-124	
1,3-Dichlorobenzene	0.125	0.111	88.8	76.0-125	
1,4-Dichlorobenzene	0.125	0.107	85.6	77.0-121	
Dichlorodifluoromethane	0.125	0.172	138	43.0-156	
1,1-Dichloroethane	0.125	0.111	88.8	70.0-127	
1,2-Dichloroethane	0.125	0.121	96.8	65.0-131	
1,1-Dichloroethene	0.125	0.107	85.6	65.0-131	
cis-1,2-Dichloroethene	0.125	0.110	88.0	73.0-125	
trans-1,2-Dichloroethene	0.125	0.109	87.2	71.0-125	
1,2-Dichloropropane	0.125	0.112	89.6	74.0-125	
1,1-Dichloropropene	0.125	0.0995	79.6	73.0-125	
1,3-Dichloropropane	0.125	0.114	91.2	80.0-125	
cis-1,3-Dichloropropene	0.125	0.103	82.4	76.0-127	
trans-1,3-Dichloropropene	0.125	0.107	85.6	73.0-127	
2,2-Dichloropropane	0.125	0.0992	79.4	59.0-135	
Di-isopropyl ether	0.125	0.115	92.0	60.0-136	
Ethylbenzene	0.125	0.115	92.0	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.0947	75.8	57.0-150	
Isopropylbenzene	0.125	0.104	83.2	72.0-127	
p-Isopropyltoluene	0.125	0.0980	78.4	72.0-133	
2-Butanone (MEK)	0.625	0.602	96.3	30.0-160	
Methylene Chloride	0.125	0.103	82.4	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.554	88.6	56.0-143	
Methyl tert-butyl ether	0.125	0.114	91.2	66.0-132	

Laboratory Control Sample (LCS)

(LCS) R3515056-1 03/28/20 22:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Naphthalene	0.125	0.0906	72.5	59.0-130	
n-Propylbenzene	0.125	0.108	86.4	74.0-126	
Styrene	0.125	0.106	84.8	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.111	88.8	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.122	97.6	68.0-128	
Tetrachloroethene	0.125	0.121	96.8	70.0-136	
Toluene	0.125	0.111	88.8	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.128	102	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.0981	78.5	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.0907	72.6	62.0-137	
1,1,1-Trichloroethane	0.125	0.119	95.2	69.0-126	
1,1,2-Trichloroethane	0.125	0.116	92.8	78.0-123	
Trichloroethene	0.125	0.103	82.4	76.0-126	
Trichlorofluoromethane	0.125	0.0875	70.0	61.0-142	
1,2,3-Trichloropropane	0.125	0.110	88.0	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.0914	73.1	74.0-124	J4
1,2,4-Trimethylbenzene	0.125	0.0980	78.4	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.111	88.8	73.0-127	
Vinyl chloride	0.125	0.135	108	63.0-134	
Xylenes, Total	0.375	0.326	86.9	72.0-127	
(S) Toluene-d8			*111*	*75.0-131*	
(S) 4-Bromofluorobenzene			*97.2*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*103*	*70.0-130*	

L1203485-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1203485-15 03/29/20 01:48 • (MS) R3515056-3 03/29/20 06:32 • (MSD) R3515056-4 03/29/20 06:52

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.561	U	0.204	0.199	36.3	35.5	1	10.0-160			2.29	40
Acrylonitrile	0.561	U	0.375	0.415	66.8	74.0	1	10.0-160			10.2	40
Benzene	0.112	U	0.0625	0.0621	55.8	55.4	1	10.0-149			0.738	37
Bromobenzene	0.112	U	0.0968	0.0944	86.4	84.2	1	10.0-156			2.53	38
Bromodichloromethane	0.112	U	0.0711	0.0706	63.4	63.0	1	10.0-143			0.649	37
Bromoform	0.112	U	0.0812	0.0846	72.4	75.5	1	10.0-146			4.16	36
Bromomethane	0.112	U	0.0285	0.0254	25.4	22.7	1	10.0-149			11.5	38
n-Butylbenzene	0.112	U	0.0612	0.0605	54.6	53.9	1	10.0-160			1.13	40
sec-Butylbenzene	0.112	U	0.0750	0.0711	66.9	63.4	1	10.0-159			5.35	39
tert-Butylbenzene	0.112	U	0.0761	0.0709	67.9	63.3	1	10.0-156			7.04	39

L1203485-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1203485-15 03/29/20 01:48 • (MS) R3515056-3 03/29/20 06:32 • (MSD) R3515056-4 03/29/20 06:52

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Carbon tetrachloride	0.112	U	0.0408	0.0481	36.4	42.9	1	10.0-145			16.3	37
Chlorobenzene	0.112	U	0.0721	0.0739	64.3	65.9	1	10.0-152			2.52	39
Chlorodibromomethane	0.112	U	0.0742	0.0767	66.2	68.4	1	10.0-146			3.35	37
Chloroethane	0.112	U	0.0129	0.0148	11.5	13.2	1	10.0-146			14.1	40
Chloroform	0.112	U	0.0631	0.0638	56.3	56.9	1	10.0-146			1.09	37
Chloromethane	0.112	U	0.0539	0.0504	48.1	44.9	1	10.0-159			6.84	37
2-Chlorotoluene	0.112	U	0.0736	0.0723	65.6	64.5	1	10.0-159			1.73	38
4-Chlorotoluene	0.112	U	0.0813	0.0785	72.5	70.1	1	10.0-155			3.45	39
1,2-Dibromo-3-Chloropropane	0.112	U	0.0846	0.0890	75.5	79.4	1	10.0-151			5.03	39
1,2-Dibromoethane	0.112	U	0.0910	0.0915	81.1	81.6	1	10.0-148			0.630	34
Dibromomethane	0.112	U	0.0728	0.0762	64.9	68.0	1	10.0-147			4.63	35
1,2-Dichlorobenzene	0.112	U	0.0767	0.0782	68.4	69.7	1	10.0-155			1.93	37
1,3-Dichlorobenzene	0.112	U	0.0804	0.0799	71.7	71.3	1	10.0-153			0.574	38
1,4-Dichlorobenzene	0.112	U	0.0807	0.0775	72.0	69.1	1	10.0-151			4.07	38
Dichlorodifluoromethane	0.112	U	0.0791	0.0734	70.6	65.4	1	10.0-160			7.54	35
1,1-Dichloroethane	0.112	U	0.0565	0.0547	50.4	48.8	1	10.0-147			3.10	37
1,2-Dichloroethane	0.112	U	0.0850	0.0908	75.8	81.0	1	10.0-148			6.67	35
1,1-Dichloroethene	0.112	U	0.0511	0.0482	45.5	43.0	1	10.0-155			5.79	37
cis-1,2-Dichloroethene	0.112	U	0.0575	0.0581	51.3	51.8	1	10.0-149			0.995	37
trans-1,2-Dichloroethene	0.112	U	0.0539	0.0534	48.1	47.6	1	10.0-150			1.07	37
1,2-Dichloropropane	0.112	U	0.0747	0.0749	66.7	66.8	1	10.0-148			0.154	37
1,1-Dichloropropene	0.112	U	0.0567	0.0548	50.6	48.9	1	10.0-153			3.30	35
1,3-Dichloropropane	0.112	U	0.0960	0.0967	85.6	86.3	1	10.0-154			0.716	35
cis-1,3-Dichloropropene	0.112	U	0.0766	0.0763	68.3	68.1	1	10.0-151			0.301	37
trans-1,3-Dichloropropene	0.112	U	0.0891	0.0899	79.5	80.2	1	10.0-148			0.899	37
2,2-Dichloropropane	0.112	U	0.0338	0.0344	30.2	30.7	1	10.0-138			1.69	36
Di-isopropyl ether	0.112	U	0.0711	0.0719	63.4	64.1	1	10.0-147			1.13	36
Ethylbenzene	0.112	U	0.0684	0.0700	61.0	62.5	1	10.0-160			2.33	38
Hexachloro-1,3-butadiene	0.112	U	0.0691	0.0697	61.6	62.2	1	10.0-160			0.829	40
Isopropylbenzene	0.112	U	0.0596	0.0591	53.1	52.7	1	10.0-155			0.775	38
p-Isopropyltoluene	0.112	U	0.0692	0.0658	61.7	58.7	1	10.0-160			5.11	40
2-Butanone (MEK)	0.561	0.0214	0.521	0.571	89.0	98.0	1	10.0-160			9.26	40
Methylene Chloride	0.112	U	0.0159	0.0557	14.2	49.6	1	10.0-141		J3	111	37
4-Methyl-2-pentanone (MIBK)	0.561	U	0.473	0.496	84.2	88.3	1	10.0-160			4.75	35
Methyl tert-butyl ether	0.112	U	0.0686	0.0701	61.2	62.6	1	11.0-147			2.15	35
Naphthalene	0.112	U	0.0793	0.0841	70.8	75.0	1	10.0-160			5.77	36
n-Propylbenzene	0.112	U	0.0742	0.0716	66.2	63.9	1	10.0-158			3.47	38
Styrene	0.112	U	0.0686	0.0700	61.2	62.5	1	10.0-160			1.99	40
1,1,1,2-Tetrachloroethane	0.112	U	0.0648	0.0675	57.8	60.2	1	10.0-149			4.00	39

L1203485-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1203485-15 03/29/20 01:48 • (MS) R3515056-3 03/29/20 06:32 • (MSD) R3515056-4 03/29/20 06:52

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,1,2,2-Tetrachloroethane	0.112	U	0.106	0.105	94.5	94.1	1	10.0-160			0.435	35
Tetrachloroethene	0.112	U	0.0745	0.0711	66.5	63.4	1	10.0-156			4.74	39
Toluene	0.112	U	0.0724	0.0713	64.6	63.6	1	10.0-156			1.60	38
1,1,2-Trichlorotrifluoroethane	0.112	U	0.0638	0.0581	56.9	51.8	1	10.0-160			9.43	36
1,2,3-Trichlorobenzene	0.112	U	0.0798	0.0854	71.2	76.2	1	10.0-160			6.82	40
1,2,4-Trichlorobenzene	0.112	U	0.0691	0.0774	61.6	69.0	1	10.0-160			11.3	40
1,1,1-Trichloroethane	0.112	U	0.0548	0.0539	48.9	48.1	1	10.0-144			1.69	35
1,1,2-Trichloroethane	0.112	U	0.0960	0.0984	85.6	87.8	1	10.0-160			2.48	35
Trichloroethene	0.112	U	0.0657	0.0655	58.6	58.5	1	10.0-156			0.175	38
Trichlorofluoromethane	0.112	U	0.0230	0.0220	20.5	19.6	1	10.0-160			4.60	40
1,2,3-Trichloropropane	0.112	U	0.104	0.105	93.0	93.8	1	10.0-156			0.878	35
1,2,3-Trimethylbenzene	0.112	U	0.0660	0.0655	58.9	58.5	1	10.0-160			0.699	36
1,2,4-Trimethylbenzene	0.112	U	0.0671	0.0666	59.9	59.4	1	10.0-160			0.860	36
1,3,5-Trimethylbenzene	0.112	U	0.0768	0.0743	68.5	66.3	1	10.0-160			3.35	38
Vinyl chloride	0.112	U	0.0621	0.0578	55.4	51.6	1	10.0-160			7.09	37
Xylenes, Total	0.337	U	0.195	0.197	58.0	58.4	1	10.0-160			0.587	38
(S) Toluene-d8					*114*	*113*		*75.0-131*				
(S) 4-Bromofluorobenzene					*89.3*	*90.4*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*92.3*	*92.6*		*70.0-130*				

Method Blank (MB)

(MB) R3516354-2 04/07/20 04:21

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
Isopropylbenzene	U		0.000863	0.00250

Method Blank (MB)

(MB) R3516354-2 04/07/20 04:21

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	0.0306		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.0125
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*117*			*75.0-131*
(S) 4-Bromofluorobenzene	*90.3*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*79.3*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3516354-1 04/07/20 03:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.517	82.7	10.0-160	
Acrylonitrile	0.625	0.592	94.7	45.0-153	
Benzene	0.125	0.110	88.0	70.0-123	
Bromobenzene	0.125	0.129	103	73.0-121	
Bromodichloromethane	0.125	0.105	84.0	73.0-121	

Laboratory Control Sample (LCS)

(LCS) R3516354-1 04/07/20 03:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromoform	0.125	0.113	90.4	64.0-132	
Bromomethane	0.125	0.101	80.8	56.0-147	
n-Butylbenzene	0.125	0.0918	73.4	68.0-135	
sec-Butylbenzene	0.125	0.109	87.2	74.0-130	
tert-Butylbenzene	0.125	0.107	85.6	75.0-127	
Carbon tetrachloride	0.125	0.100	80.0	66.0-128	
Chlorobenzene	0.125	0.116	92.8	76.0-128	
Chlorodibromomethane	0.125	0.104	83.2	74.0-127	
Chloroethane	0.125	0.111	88.8	61.0-134	
Chloroform	0.125	0.114	91.2	72.0-123	
Chloromethane	0.125	0.119	95.2	51.0-138	
2-Chlorotoluene	0.125	0.110	88.0	75.0-124	
4-Chlorotoluene	0.125	0.111	88.8	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.102	81.6	59.0-130	
1,2-Dibromoethane	0.125	0.111	88.8	74.0-128	
Dibromomethane	0.125	0.102	81.6	75.0-122	
1,2-Dichlorobenzene	0.125	0.109	87.2	76.0-124	
1,3-Dichlorobenzene	0.125	0.117	93.6	76.0-125	
1,4-Dichlorobenzene	0.125	0.112	89.6	77.0-121	
Dichlorodifluoromethane	0.125	0.154	123	43.0-156	
1,1-Dichloroethane	0.125	0.106	84.8	70.0-127	
1,2-Dichloroethane	0.125	0.112	89.6	65.0-131	
1,1-Dichloroethene	0.125	0.103	82.4	65.0-131	
cis-1,2-Dichloroethene	0.125	0.112	89.6	73.0-125	
trans-1,2-Dichloroethene	0.125	0.115	92.0	71.0-125	
1,2-Dichloropropane	0.125	0.116	92.8	74.0-125	
1,1-Dichloropropene	0.125	0.0978	78.2	73.0-125	
1,3-Dichloropropane	0.125	0.118	94.4	80.0-125	
cis-1,3-Dichloropropene	0.125	0.107	85.6	76.0-127	
trans-1,3-Dichloropropene	0.125	0.116	92.8	73.0-127	
2,2-Dichloropropane	0.125	0.102	81.6	59.0-135	
Di-isopropyl ether	0.125	0.113	90.4	60.0-136	
Ethylbenzene	0.125	0.120	96.0	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.109	87.2	57.0-150	
Isopropylbenzene	0.125	0.107	85.6	72.0-127	
p-Isopropyltoluene	0.125	0.102	81.6	72.0-133	
2-Butanone (MEK)	0.625	0.547	87.5	30.0-160	
Methylene Chloride	0.125	0.106	84.8	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.547	87.5	56.0-143	
Methyl tert-butyl ether	0.125	0.109	87.2	66.0-132	

Laboratory Control Sample (LCS)

(LCS) R3516354-1 04/07/20 03:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Naphthalene	0.125	0.0941	75.3	59.0-130	
n-Propylbenzene	0.125	0.111	88.8	74.0-126	
Styrene	0.125	0.108	86.4	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.113	90.4	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.131	105	68.0-128	
Tetrachloroethene	0.125	0.129	103	70.0-136	
Toluene	0.125	0.120	96.0	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.123	98.4	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.107	85.6	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.0996	79.7	62.0-137	
1,1,1-Trichloroethane	0.125	0.109	87.2	69.0-126	
1,1,2-Trichloroethane	0.125	0.123	98.4	78.0-123	
Trichloroethene	0.125	0.104	83.2	76.0-126	
Trichlorofluoromethane	0.125	0.116	92.8	61.0-142	
1,2,3-Trichloropropane	0.125	0.113	90.4	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.0956	76.5	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.101	80.8	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.114	91.2	73.0-127	
Vinyl chloride	0.125	0.135	108	63.0-134	
Xylenes, Total	0.375	0.336	89.6	72.0-127	
(S) Toluene-d8			*112*	*75.0-131*	
(S) 4-Bromofluorobenzene			*93.3*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*87.8*	*70.0-130*	

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

Method Blank (MB)

(MB) R3515471-2 04/03/20 23:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00642	0.0333
Acenaphthylene	U		0.00671	0.0333
Anthracene	U		0.00632	0.0333
Benzidine	U		0.0637	0.333
Benzo(a)anthracene	U		0.00428	0.0333
Benzo(b)fluoranthene	U		0.00695	0.0333
Benzo(k)fluoranthene	U		0.00582	0.0333
Benzo(g,h,i)perylene	U		0.00721	0.0333
Benzo(a)pyrene	U		0.00548	0.0333
Bis(2-chlorethoxy)methane	U		0.00770	0.333
Bis(2-chloroethyl)ether	U		0.00896	0.333
2,2-Oxybis(1-Chloropropane)	U		0.00760	0.333
4-Bromophenyl-phenylether	U		0.0114	0.333
2-Chloronaphthalene	U		0.00639	0.0333
4-Chlorophenyl-phenylether	U		0.00627	0.333
Chrysene	U		0.00555	0.0333
Dibenz(a,h)anthracene	U		0.00821	0.0333
3,3-Dichlorobenzidine	U		0.0794	0.333
2,4-Dinitrotoluene	U		0.00607	0.333
2,6-Dinitrotoluene	U		0.00737	0.333
Fluoranthene	U		0.00496	0.0333
Fluorene	U		0.00682	0.0333
Hexachlorobenzene	U		0.00856	0.333
Hexachloro-1,3-butadiene	U		0.0100	0.333
Hexachlorocyclopentadiene	U		0.0587	0.333
Hexachloroethane	U		0.0134	0.333
Indeno(1,2,3-cd)pyrene	U		0.00772	0.0333
Isophorone	U		0.00522	0.333
Naphthalene	U		0.00889	0.0333
Nitrobenzene	U		0.00695	0.333
n-Nitrosodimethylamine	U		0.0647	0.333
n-Nitrosodiphenylamine	U		0.0900	0.333
n-Nitrosodi-n-propylamine	U		0.00906	0.333
Phenanthrene	U		0.00528	0.0333
Benzylbutyl phthalate	U		0.0103	0.333
Bis(2-ethylhexyl)phthalate	U		0.0120	0.333
Di-n-butyl phthalate	U		0.0109	0.333
Diethyl phthalate	U		0.00691	0.333
Dimethyl phthalate	U		0.00540	0.333
Di-n-octyl phthalate	U		0.00907	0.333

Method Blank (MB)

(MB) R3515471-2 04/03/20 23:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Pyrene	U		0.0123	0.0333
1,2,4-Trichlorobenzene	U		0.00876	0.333
4-Chloro-3-methylphenol	U		0.00477	0.333
2-Chlorophenol	U		0.00831	0.333
2,4-Dichlorophenol	U		0.00746	0.333
2,4-Dimethylphenol	U		0.0471	0.333
4,6-Dinitro-2-methylphenol	U		0.124	0.333
2,4-Dinitrophenol	U		0.0980	0.333
2-Nitrophenol	U		0.0130	0.333
4-Nitrophenol	U		0.0525	0.333
Pentachlorophenol	U		0.0480	0.333
Phenol	U		0.00695	0.333
2,4,6-Trichlorophenol	U		0.00779	0.333
(S) Nitrobenzene-d5	*59.2*			*10.0-122*
(S) 2-Fluorobiphenyl	*65.5*			*15.0-120*
(S) p-Terphenyl-d14	*67.3*			*10.0-120*
(S) Phenol-d5	*60.8*			*10.0-120*
(S) 2-Fluorophenol	*71.9*			*12.0-120*
(S) 2,4,6-Tribromophenol	*58.9*			*10.0-127*

Laboratory Control Sample (LCS)

(LCS) R3515471-1 04/03/20 23:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.666	0.380	57.1	38.0-120	
Acenaphthylene	0.666	0.406	61.0	40.0-120	
Anthracene	0.666	0.389	58.4	42.0-120	
Benzidine	1.33	0.362	27.2	10.0-120	
Benzo(a)anthracene	0.666	0.446	67.0	44.0-120	
Benzo(b)fluoranthene	0.666	0.423	63.5	43.0-120	
Benzo(k)fluoranthene	0.666	0.401	60.2	44.0-120	
Benzo(g,h,i)perylene	0.666	0.413	62.0	43.0-120	
Benzo(a)pyrene	0.666	0.436	65.5	45.0-120	
Bis(2-chlorethoxy)methane	0.666	0.308	46.2	20.0-120	
Bis(2-chloroethyl)ether	0.666	0.395	59.3	16.0-120	
2,2-Oxybis(1-Chloropropane)	0.666	0.354	53.2	23.0-120	
4-Bromophenyl-phenylether	0.666	0.411	61.7	40.0-120	
2-Chloronaphthalene	0.666	0.384	57.7	35.0-120	

Laboratory Control Sample (LCS)

(LCS) R3515471-1 04/03/20 23:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
4-Chlorophenyl-phenylether	0.666	0.406	61.0	40.0-120	
Chrysene	0.666	0.404	60.7	43.0-120	
Dibenz(a,h)anthracene	0.666	0.416	62.5	44.0-120	
3,3-Dichlorobenzidine	1.33	0.834	62.7	28.0-120	
2,4-Dinitrotoluene	0.666	0.426	64.0	45.0-120	
2,6-Dinitrotoluene	0.666	0.405	60.8	42.0-120	
Fluoranthene	0.666	0.418	62.8	44.0-120	
Fluorene	0.666	0.392	58.9	41.0-120	
Hexachlorobenzene	0.666	0.412	61.9	39.0-120	
Hexachloro-1,3-butadiene	0.666	0.357	53.6	15.0-120	
Hexachlorocyclopentadiene	0.666	0.396	59.5	15.0-120	
Hexachloroethane	0.666	0.346	52.0	17.0-120	
Indeno(1,2,3-cd)pyrene	0.666	0.425	63.8	45.0-120	
Isophorone	0.666	0.306	45.9	23.0-120	
Naphthalene	0.666	0.311	46.7	18.0-120	
Nitrobenzene	0.666	0.314	47.1	17.0-120	
n-Nitrosodimethylamine	0.666	0.311	46.7	10.0-125	
n-Nitrosodiphenylamine	0.666	0.392	58.9	40.0-120	
n-Nitrosodi-n-propylamine	0.666	0.345	51.8	26.0-120	
Phenanthrene	0.666	0.388	58.3	42.0-120	
Benzylbutyl phthalate	0.666	0.421	63.2	40.0-120	
Bis(2-ethylhexyl)phthalate	0.666	0.393	59.0	41.0-120	
Di-n-butyl phthalate	0.666	0.407	61.1	43.0-120	
Diethyl phthalate	0.666	0.397	59.6	43.0-120	
Dimethyl phthalate	0.666	0.387	58.1	43.0-120	
Di-n-octyl phthalate	0.666	0.404	60.7	40.0-120	
Pyrene	0.666	0.403	60.5	41.0-120	
1,2,4-Trichlorobenzene	0.666	0.340	51.1	17.0-120	
4-Chloro-3-methylphenol	0.666	0.370	55.6	28.0-120	
2-Chlorophenol	0.666	0.408	61.3	28.0-120	
2,4-Dichlorophenol	0.666	0.369	55.4	25.0-120	
2,4-Dimethylphenol	0.666	0.367	55.1	15.0-120	
4,6-Dinitro-2-methylphenol	0.666	0.391	58.7	16.0-120	
2,4-Dinitrophenol	0.666	0.245	36.8	10.0-120	
2-Nitrophenol	0.666	0.373	56.0	20.0-120	
4-Nitrophenol	0.666	0.363	54.5	27.0-120	
Pentachlorophenol	0.666	0.436	65.5	29.0-120	
Phenol	0.666	0.400	60.1	28.0-120	
2,4,6-Trichlorophenol	0.666	0.430	64.6	37.0-120	
(S) Nitrobenzene-d5			*61.0*	*10.0-122*	

Laboratory Control Sample (LCS)

(LCS) R3515471-1 04/03/20 23:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) 2-Fluorobiphenyl			*61.3*	*15.0-120*	
(S) p-Terphenyl-d14			*62.2*	*10.0-120*	
(S) Phenol-d5			*61.4*	*10.0-120*	
(S) 2-Fluorophenol			*67.0*	*12.0-120*	
(S) 2,4,6-Tribromophenol			*67.7*	*10.0-127*	

L1204443-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1204443-01 04/04/20 05:23 • (MS) R3515471-3 04/04/20 05:46 • (MSD) R3515471-4 04/04/20 06:09

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.654	U	0.425	0.464	65.0	70.7	2	18.0-120			8.77	32
Acenaphthylene	0.654	U	0.379	0.405	58.0	61.7	2	25.0-120			6.63	32
Benzidine	1.31	U	ND	0.441	0.000	33.7	2	10.0-120	J6	J3	200	40
Benzo(a)anthracene	0.654	0.0275	0.472	0.452	68.0	64.7	2	25.0-120			4.33	29
Benzo(b)fluoranthene	0.654	0.0529	0.442	0.435	59.5	58.2	2	19.0-122			1.60	31
Benzo(k)fluoranthene	0.654	0.0128	0.395	0.386	58.4	56.9	2	23.0-120			2.30	30
Benzo(g,h,i)perylene	0.654	0.0374	0.456	0.456	64.0	63.8	2	10.0-120			0.000	33
Benzo(a)pyrene	0.654	0.0326	0.461	0.455	65.5	64.4	2	24.0-120			1.31	30
Anthracene	0.654	U	0.421	0.410	64.4	62.5	2	22.0-120			2.65	29
Bis(2-chlorethoxy)methane	0.654	U	ND	ND	0.000	0.000	2	10.0-120	J6	J6	0.000	34
Bis(2-chloroethyl)ether	0.654	U	0.285	0.269	43.6	41.0	2	10.0-120			5.78	40
2,2-Oxybis(1-Chloropropane)	0.654	U	0.366	0.347	56.0	52.9	2	10.0-120			5.33	40
4-Bromophenyl-phenylether	0.654	U	0.636	0.590	97.2	89.9	2	27.0-120			7.50	30
2-Chloronaphthalene	0.654	U	0.374	0.388	57.2	59.1	2	20.0-120			3.67	32
Chrysene	0.654	0.0336	0.406	0.404	56.9	56.5	2	21.0-120			0.494	29
Dibenz(a,h)anthracene	0.654	U	0.426	0.423	65.1	64.5	2	10.0-120			0.707	32
3,3-Dichlorobenzidine	1.31	U	0.776	0.750	59.2	57.3	2	10.0-120			3.41	34
2,4-Dinitrotoluene	0.654	U	ND	ND	0.000	0.000	2	30.0-120	J6	J6	0.000	31
2,6-Dinitrotoluene	0.654	U	ND	ND	0.000	0.000	2	25.0-120	J6	J6	0.000	31
4-Chlorophenyl-phenylether	0.654	U	0.397	0.392	60.7	59.8	2	24.0-120			1.27	29
Fluoranthene	0.654	0.0795	0.500	0.495	64.3	63.3	2	18.0-126			1.01	32
Fluorene	0.654	0.105	0.424	0.464	48.8	54.7	2	25.0-120			9.01	30
Hexachlorobenzene	0.654	U	0.496	0.474	75.8	72.3	2	27.0-120			4.54	28
Hexachloro-1,3-butadiene	0.654	U	0.387	0.458	59.2	69.8	2	10.0-120			16.8	38
Hexachlorocyclopentadiene	0.654	U	ND	ND	0.000	0.000	2	10.0-120	J6	J6	0.000	40
Hexachloroethane	0.654	U	ND	ND	0.000	0.000	2	10.0-120	J6	J6	0.000	40
Indeno(1,2,3-cd)pyrene	0.654	0.0347	0.481	0.481	68.2	68.0	2	10.0-120			0.000	32
Isophorone	0.654	U	ND	ND	0.000	0.000	2	13.0-120	J6	J6	0.000	34

L1204443-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1204443-01 04/04/20 05:23 • (MS) R3515471-3 04/04/20 05:46 • (MSD) R3515471-4 04/04/20 06:09

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Naphthalene	0.654	0.904	0.869	1.01	0.000	16.2	2	10.0-120	J6		15.0	35
Nitrobenzene	0.654	U	ND	ND	0.000	0.000	2	10.0-120	J6	J6	0.000	36
n-Nitrosodimethylamine	0.654	U	0.254	0.243	38.8	37.0	2	10.0-127			4.43	40
n-Nitrosodiphenylamine	0.654	U	0.867	0.872	133	133	2	17.0-120	J5	J5	0.575	29
n-Nitrosodi-n-propylamine	0.654	U	ND	ND	0.000	0.000	2	10.0-120	J6	J6	0.000	37
Phenanthrene	0.654	0.0723	0.450	0.450	57.8	57.6	2	17.0-120			0.000	31
Benzylbutyl phthalate	0.654	U	0.434	0.403	66.4	61.4	2	23.0-120			7.41	30
Bis(2-ethylhexyl)phthalate	0.654	0.0559	0.444	0.427	59.3	56.6	2	17.0-126			3.90	30
Di-n-butyl phthalate	0.654	U	0.409	0.390	62.5	59.5	2	30.0-120			4.76	29
Diethyl phthalate	0.654	U	0.339	0.344	51.8	52.4	2	26.0-120			1.46	28
Dimethyl phthalate	0.654	U	0.406	0.419	62.1	63.9	2	25.0-120			3.15	29
Di-n-octyl phthalate	0.654	U	0.446	0.428	68.2	65.2	2	21.0-123			4.12	29
Pyrene	0.654	0.0718	0.460	0.447	59.4	57.2	2	16.0-121			2.87	32
1,2,4-Trichlorobenzene	0.654	U	0.330	0.391	50.5	59.6	2	12.0-120			16.9	37
4-Chloro-3-methylphenol	0.654	U	ND	ND	0.000	0.000	2	15.0-120	J6	J6	0.000	30
2-Chlorophenol	0.654	U	0.354	0.322	54.1	49.1	2	15.0-120			9.47	37
2,4-Dichlorophenol	0.654	U	ND	0.685	0.000	104	2	20.0-120	J6	J3	200	31
2,4-Dimethylphenol	0.654	U	0.640	0.689	97.9	105	2	10.0-120			7.37	33
4,6-Dinitro-2-methylphenol	0.654	U	ND	0.559	0.000	85.2	2	10.0-120	J6	J3	200	39
2-Nitrophenol	0.654	U	ND	ND	0.000	0.000	2	12.0-120	J6	J6	0.000	39
4-Nitrophenol	0.654	U	ND	ND	0.000	0.000	2	10.0-137	J6	J6	0.000	32
Pentachlorophenol	0.654	U	0.704	0.685	108	104	2	10.0-160			2.74	31
Phenol	0.654	U	0.349	0.322	53.4	49.1	2	12.0-120			8.05	38
2,4,6-Trichlorophenol	0.654	U	ND	ND	0.000	0.000	2	19.0-120	J6	J6	0.000	32
2,4-Dinitrophenol	0.654	U	ND	ND	0.000	0.000	2	10.0-121	J6	J6	0.000	40
(S) Nitrobenzene-d5					*0.000*	*0.000*		*10.0-122*	J2	J2		
(S) 2-Fluorobiphenyl					*56.0*	*60.1*		*15.0-120*				
(S) p-Terphenyl-d14					*64.5*	*60.7*		*10.0-120*				
(S) Phenol-d5					*57.5*	*55.9*		*10.0-120*				
(S) 2-Fluorophenol					*60.2*	*54.5*		*12.0-120*				
(S) 2,4,6-Tribromophenol					*106*	*97.1*		*10.0-127*				

Sample Narrative:

OS: Dilution due to matrix impact during concentration procedure. Surrogate failure due to matrix.

Method Blank (MB)

(MB) R3513998-2 03/30/20 09:21

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.000600	0.00600
Acenaphthene	U		0.000600	0.00600
Acenaphthylene	U		0.000600	0.00600
Benzo(a)anthracene	U		0.000600	0.00600
Benzo(a)pyrene	U		0.000600	0.00600
Benzo(b)fluoranthene	U		0.000600	0.00600
Benzo(g,h,i)perylene	U		0.000600	0.00600
Benzo(k)fluoranthene	U		0.000600	0.00600
Chrysene	U		0.000600	0.00600
Dibenz(a,h)anthracene	U		0.000600	0.00600
Fluoranthene	U		0.000600	0.00600
Fluorene	U		0.000600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.000600	0.00600
Pyrene	U		0.000600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
2-Chloronaphthalene	U		0.00200	0.0200
(S) Nitrobenzene-d5	*76.5*			*14.0-149*
(S) 2-Fluorobiphenyl	*72.9*			*34.0-125*
(S) p-Terphenyl-d14	*80.0*			*23.0-120*

Laboratory Control Sample (LCS)

(LCS) R3513998-1 03/30/20 09:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0580	72.5	50.0-126	
Acenaphthene	0.0800	0.0597	74.6	50.0-120	
Acenaphthylene	0.0800	0.0656	82.0	50.0-120	
Benzo(a)anthracene	0.0800	0.0599	74.9	45.0-120	
Benzo(a)pyrene	0.0800	0.0503	62.9	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0555	69.4	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0552	69.0	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0566	70.8	49.0-125	
Chrysene	0.0800	0.0557	69.6	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0525	65.6	47.0-125	
Fluoranthene	0.0800	0.0561	70.1	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3513998-1 03/30/20 09:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0602	75.3	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0552	69.0	46.0-125	
Naphthalene	0.0800	0.0537	67.1	50.0-120	
Phenanthrene	0.0800	0.0570	71.3	47.0-120	
Pyrene	0.0800	0.0611	76.4	43.0-123	
1-Methylnaphthalene	0.0800	0.0593	74.1	51.0-121	
2-Methylnaphthalene	0.0800	0.0552	69.0	50.0-120	
2-Chloronaphthalene	0.0800	0.0591	73.9	50.0-120	
(S) Nitrobenzene-d5			*81.2*	*14.0-149*	
(S) 2-Fluorobiphenyl			*75.1*	*34.0-125*	
(S) p-Terphenyl-d14			*79.4*	*23.0-120*	

L1202600-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1202600-02 03/30/20 10:32 • (MS) R3513998-3 03/30/20 10:52 • (MSD) R3513998-4 03/30/20 11:13

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0764	U	0.0529	0.0552	69.2	72.3	1	10.0-145			4.26	30
Acenaphthene	0.0764	U	0.0539	0.0578	70.5	75.7	1	14.0-127			6.98	27
Acenaphthylene	0.0764	U	0.0590	0.0630	77.2	82.5	1	21.0-124			6.56	25
Benzo(a)anthracene	0.0764	U	0.0538	0.0572	70.4	74.9	1	10.0-139			6.13	30
Benzo(a)pyrene	0.0764	U	0.0516	0.0546	67.5	71.5	1	10.0-141			5.65	31
Benzo(b)fluoranthene	0.0764	U	0.0506	0.0537	66.2	70.3	1	10.0-140			5.94	36
Benzo(g,h,i)perylene	0.0764	U	0.0517	0.0549	67.7	71.9	1	10.0-140			6.00	33
Benzo(k)fluoranthene	0.0764	U	0.0512	0.0543	67.0	71.1	1	10.0-137			5.88	31
Chrysene	0.0764	U	0.0510	0.0541	66.8	70.8	1	10.0-145			5.90	30
Dibenz(a,h)anthracene	0.0764	U	0.0491	0.0517	64.3	67.7	1	10.0-132			5.16	31
Fluoranthene	0.0764	U	0.0503	0.0541	65.8	70.8	1	10.0-153			7.28	33
Fluorene	0.0764	U	0.0536	0.0573	70.2	75.0	1	11.0-130			6.67	29
Indeno(1,2,3-cd)pyrene	0.0764	U	0.0511	0.0539	66.9	70.5	1	10.0-137			5.33	32
Naphthalene	0.0764	U	0.0489	0.0527	64.0	69.0	1	10.0-135			7.48	27
Phenanthrene	0.0764	U	0.0524	0.0560	68.6	73.3	1	10.0-144			6.64	31
1-Methylnaphthalene	0.0764	U	0.0542	0.0579	70.9	75.8	1	10.0-142			6.60	28
Pyrene	0.0764	U	0.0560	0.0593	73.3	77.6	1	10.0-148			5.72	35
2-Methylnaphthalene	0.0764	U	0.0504	0.0540	66.0	70.7	1	10.0-137			6.90	28
2-Chloronaphthalene	0.0764	U	0.0539	0.0574	70.5	75.1	1	29.0-120			6.29	24
(S) Nitrobenzene-d5					*75.1*	*80.8*		*14.0-149*				
(S) 2-Fluorobiphenyl					*71.2*	*76.3*		*34.0-125*				
(S) p-Terphenyl-d14					*74.6*	*79.1*		*23.0-120*				

Method Blank (MB)

(MB) R3513983-1 03/30/20 09:08

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.000600	0.00600
Acenaphthene	U		0.000600	0.00600
Acenaphthylene	U		0.000600	0.00600
Benzo(a)anthracene	U		0.000600	0.00600
Benzo(a)pyrene	U		0.000600	0.00600
Benzo(b)fluoranthene	U		0.000600	0.00600
Benzo(g,h,i)perylene	U		0.000600	0.00600
Benzo(k)fluoranthene	U		0.000600	0.00600
Chrysene	U		0.000600	0.00600
Dibenz(a,h)anthracene	U		0.000600	0.00600
Fluoranthene	U		0.000600	0.00600
Fluorene	U		0.000600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.000600	0.00600
Pyrene	U		0.000600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
2-Chloronaphthalene	U		0.00200	0.0200
(S) Nitrobenzene-d5	*66.4*			*14.0-149*
(S) 2-Fluorobiphenyl	*70.7*			*34.0-125*
(S) p-Terphenyl-d14	*77.9*			*23.0-120*

Laboratory Control Sample (LCS)

(LCS) R3513983-2 03/30/20 09:29

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0556	69.5	50.0-126	
Acenaphthene	0.0800	0.0558	69.8	50.0-120	
Acenaphthylene	0.0800	0.0561	70.1	50.0-120	
Benzo(a)anthracene	0.0800	0.0558	69.8	45.0-120	
Benzo(a)pyrene	0.0800	0.0456	57.0	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0492	61.5	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0531	66.4	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0607	75.9	49.0-125	
Chrysene	0.0800	0.0591	73.9	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0529	66.1	47.0-125	
Fluoranthene	0.0800	0.0626	78.3	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3513983-2 03/30/20 09:29

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0592	74.0	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0541	67.6	46.0-125	
Naphthalene	0.0800	0.0558	69.8	50.0-120	
Phenanthrene	0.0800	0.0599	74.9	47.0-120	
Pyrene	0.0800	0.0547	68.4	43.0-123	
1-Methylnaphthalene	0.0800	0.0569	71.1	51.0-121	
2-Methylnaphthalene	0.0800	0.0548	68.5	50.0-120	
2-Chloronaphthalene	0.0800	0.0551	68.9	50.0-120	
(S) Nitrobenzene-d5			*66.7*	*14.0-149*	
(S) 2-Fluorobiphenyl			*70.9*	*34.0-125*	
(S) p-Terphenyl-d14			*76.5*	*23.0-120*	

L1203307-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1203307-01 03/30/20 09:50 • (MS) R3513983-3 03/30/20 10:11 • (MSD) R3513983-4 03/30/20 10:31

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0796	ND	0.0322	0.0456	40.5	57.6	1	10.0-145		J3	34.4	30
Acenaphthene	0.0796	ND	0.0321	0.0440	40.3	55.6	1	14.0-127		J3	31.3	27
Acenaphthylene	0.0796	ND	0.0328	0.0456	41.2	57.6	1	21.0-124		J3	32.7	25
Benzo(a)anthracene	0.0796	0.00650	0.0458	0.0598	49.4	67.3	1	10.0-139			26.5	30
Benzo(a)pyrene	0.0796	0.00856	0.0446	0.0579	45.3	62.3	1	10.0-141			26.0	31
Benzo(b)fluoranthene	0.0796	0.0125	0.0501	0.0653	47.2	66.7	1	10.0-140			26.3	36
Benzo(g,h,i)perylene	0.0796	0.00842	0.0425	0.0579	42.8	62.5	1	10.0-140			30.7	33
Benzo(k)fluoranthene	0.0796	ND	0.0399	0.0528	50.1	66.7	1	10.0-137			27.8	31
Chrysene	0.0796	0.00942	0.0495	0.0631	50.4	67.8	1	10.0-145			24.2	30
Dibenz(a,h)anthracene	0.0796	ND	0.0306	0.0470	38.4	59.3	1	10.0-132		J3	42.3	31
Fluoranthene	0.0796	0.0121	0.0591	0.0722	59.0	75.9	1	10.0-153			20.0	33
Fluorene	0.0796	ND	0.0335	0.0471	42.1	59.5	1	11.0-130		J3	33.7	29
Indeno(1,2,3-cd)pyrene	0.0796	0.00634	0.0406	0.0546	43.0	60.9	1	10.0-137			29.4	32
Naphthalene	0.0796	ND	0.0391	0.0537	49.1	67.8	1	10.0-135		J3	31.5	27
Phenanthrene	0.0796	ND	0.0397	0.0540	49.9	68.2	1	10.0-144			30.5	31
Pyrene	0.0796	0.0113	0.0528	0.0663	52.1	69.4	1	10.0-148			22.7	35
1-Methylnaphthalene	0.0796	ND	0.0346	0.0468	43.5	59.1	1	10.0-142		J3	30.0	28
2-Methylnaphthalene	0.0796	ND	0.0346	0.0476	43.5	60.1	1	10.0-137		J3	31.6	28
2-Chloronaphthalene	0.0796	ND	0.0315	0.0426	39.6	53.8	1	29.0-120		J3	30.0	24
(S) Nitrobenzene-d5					*39.8*	*59.2*		*14.0-149*				
(S) 2-Fluorobiphenyl					*39.3*	*58.5*		*34.0-125*				
(S) p-Terphenyl-d14					*40.8*	*64.9*		*23.0-120*				

Method Blank (MB)

(MB) R3514089-2 03/30/20 20:58

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.000600	0.00600
Acenaphthene	U		0.000600	0.00600
Acenaphthylene	U		0.000600	0.00600
Benzo(a)anthracene	U		0.000600	0.00600
Benzo(a)pyrene	U		0.000600	0.00600
Benzo(b)fluoranthene	U		0.000600	0.00600
Benzo(g,h,i)perylene	U		0.000600	0.00600
Benzo(k)fluoranthene	U		0.000600	0.00600
Chrysene	U		0.000600	0.00600
Dibenz(a,h)anthracene	U		0.000600	0.00600
Fluoranthene	U		0.000600	0.00600
Fluorene	U		0.000600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.000600	0.00600
Pyrene	U		0.000600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
2-Chloronaphthalene	U		0.00200	0.0200
(S) Nitrobenzene-d5	*85.4*			*14.0-149*
(S) 2-Fluorobiphenyl	*80.6*			*34.0-125*
(S) p-Terphenyl-d14	*84.5*			*23.0-120*

Laboratory Control Sample (LCS)

(LCS) R3514089-1 03/30/20 20:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0631	78.9	50.0-126	
Acenaphthene	0.0800	0.0653	81.6	50.0-120	
Acenaphthylene	0.0800	0.0707	88.4	50.0-120	
Benzo(a)anthracene	0.0800	0.0634	79.3	45.0-120	
Benzo(a)pyrene	0.0800	0.0605	75.6	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0614	76.8	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0642	80.3	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0617	77.1	49.0-125	
Chrysene	0.0800	0.0608	76.0	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0631	78.9	47.0-125	
Fluoranthene	0.0800	0.0621	77.6	49.0-129	

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM L1203485-07,08,09,10,11,12,13,14,15

Laboratory Control Sample (LCS)

(LCS) R3514089-1 03/30/20 20:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0656	82.0	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0651	81.4	46.0-125	
Naphthalene	0.0800	0.0606	75.8	50.0-120	
Phenanthrene	0.0800	0.0625	78.1	47.0-120	
Pyrene	0.0800	0.0602	75.3	43.0-123	
1-Methylnaphthalene	0.0800	0.0650	81.3	51.0-121	
2-Methylnaphthalene	0.0800	0.0614	76.8	50.0-120	
2-Chloronaphthalene	0.0800	0.0641	80.1	50.0-120	
(S) Nitrobenzene-d5			*89.0*	*14.0-149*	
(S) 2-Fluorobiphenyl			*84.1*	*34.0-125*	
(S) p-Terphenyl-d14			*84.7*	*23.0-120*	

L1203485-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1203485-14 03/30/20 23:43 • (MS) R3514089-3 03/31/20 00:04 • (MSD) R3514089-4 03/31/20 00:25

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.102	U	0.0745	0.0711	73.3	70.0	1	10.0-145			4.54	30
Acenaphthene	0.102	U	0.0746	0.0723	73.4	71.1	1	14.0-127			3.11	27
Acenaphthylene	0.102	U	0.0830	0.0806	81.6	79.3	1	21.0-124			2.95	25
Benzo(a)anthracene	0.102	0.000922	0.0755	0.0733	73.3	71.2	1	10.0-139			2.90	30
Benzo(a)pyrene	0.102	U	0.0724	0.0698	71.3	68.6	1	10.0-141			3.75	31
Benzo(b)fluoranthene	0.102	0.000806	0.0671	0.0642	65.2	62.3	1	10.0-140			4.45	36
Benzo(g,h,i)perylene	0.102	0.000945	0.0738	0.0695	71.7	67.4	1	10.0-140			6.03	33
Benzo(k)fluoranthene	0.102	U	0.0706	0.0700	69.5	68.9	1	10.0-137			0.903	31
Chrysene	0.102	U	0.0684	0.0663	67.3	65.3	1	10.0-145			3.02	30
Dibenz(a,h)anthracene	0.102	0.000769	0.0752	0.0714	73.2	69.5	1	10.0-132			5.20	31
Fluoranthene	0.102	0.00107	0.0720	0.0691	69.8	66.9	1	10.0-153			4.14	33
Fluorene	0.102	U	0.0765	0.0741	75.3	72.9	1	11.0-130			3.21	29
Indeno(1,2,3-cd)pyrene	0.102	0.000826	0.0760	0.0723	73.9	70.3	1	10.0-137			4.97	32
Naphthalene	0.102	U	0.0690	0.0680	67.9	66.9	1	10.0-135			1.48	27
Phenanthrene	0.102	0.00198	0.0728	0.0701	69.7	67.1	1	10.0-144			3.73	31
Pyrene	0.102	0.000947	0.0711	0.0685	69.1	66.4	1	10.0-148			3.82	35
1-Methylnaphthalene	0.102	U	0.0743	0.0723	73.1	71.1	1	10.0-142			2.77	28
2-Methylnaphthalene	0.102	U	0.0706	0.0687	69.5	67.6	1	10.0-137			2.73	28
2-Chloronaphthalene	0.102	U	0.0731	0.0708	71.9	69.6	1	29.0-120			3.18	24
(S) Nitrobenzene-d5					*81.5*	*75.8*		*14.0-149*				
(S) 2-Fluorobiphenyl					*74.7*	*70.9*		*34.0-125*				
(S) p-Terphenyl-d14					*78.9*	*75.2*		*23.0-120*				

Guide to Reading and Understanding Your Laboratory Report

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

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

Qualifier	Description
T8	Sample(s) received past/too close to holding time expiration.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

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

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

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

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

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

Bodine Environmental Services Inc.

2509 West Iles Avenue, Suite 103
Springfield, IL 62704

Billing Information:
Accounts Payable
5350 East Firehouse Road
Decatur, IL 62521-9601

Report to: Bob Rogers

Email To: brogers@bodineservices.com

Project Description: Morgan St PSI

City/State Collected: Shelbyville IL

Please Circle: PT MT CT ET

Phone: 800-637-2379
Fax: 217-864-2086

Client Project # 127051

Lab Project # BODINENV-032020

Collected by (print): Robert Rogers

Site/Facility ID # 127051

P.O. # 127051

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed: Std TAT

Chain of Custody Page 1 of 2

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L1203485

E206

Template: T165202
Prelogin: P763505
PM: 341 - John Hawkins
PB: LC 3/20

Shipped Via: FedEX Standard

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	pH TS 2oz Clr-NoPres	8021 BTEX MTBE	8270 PAH SIM	Lead	Remarks	Sample # (lab only)
B1-1	Grab	SS	10.0	3/25/20	10:00	5	X	X	X	X		-01
B1-2		SS	15.5	3/25/20	10:30	5	X	X	X	X		-02
B2-1		SS	6.0	3/25/20	10:40	5	X	X	X	X		-03
B2-2		SS	17.5	3/25/20	11:10	5	X	X	X	X		-04
B3-1		SS	7.0	3/25/20	11:40	5	X	X	X	X		-05
B3-2		SS	9.5	3/25/20	12:00	5	X	X	X	X		-06
~~B4-1~~ B4		SS	14.5	3/25/20	12:20	5	X	X	X	X		-07
~~B4-2~~		~~SS~~				~~5~~	X	X	X	X		
~~B5-1~~ B5	Grab	SS	14.5	3/25/20	12:45	5	X	X	X	X		-08
~~B5-2~~	Grab	~~SS~~				~~5~~	X	X	X	X		

Matrix:
S - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

pH ____ Temp ____
Flow ____ Other ____

Samples returned via: __ UPS __ FedEx __ Courier ____

Tracking # 1663 5757 1272

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
to Bodine Storage	3/25/20	17:00	Bodine Storage
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Bodine Storage	3/26/20	15:00	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)
to FedEx	3/26/20	16:00	

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 1.3-.1=1.2 °C Bottles Received: 40

Date: 27MAR Time: 0730

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Bodine Environmental Services Inc.

2509 West Iles Avenue, Suite 103
Springfield, IL 62704

Billing Information:
Accounts Payable
5350 East Firehouse Road
Decatur, IL 62521-9601

Pres Chk

Report to: Bob Rogers

Email To: brogers@bodineservices.com

Project Description: Morgan St PSI

City/State Collected: Shelbyville IL

Please Circle: PT MT CT ET

Phone: 800-637-2379
Fax: 217-864-2086

Client Project # 127051

Lab Project # BODINENV-032020

Collected by (print): Robert Rogers

Site/Facility ID # 127051

P.O. # 127051

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
X Three Day

Quote #

Date Results Needed: Std TAT

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	8270 8082 4ozClr-NoPres	Lead 2ozClr-NoPres	Metals RCRA8 2ozClr-NoPres	SV8270 4ozClr-NoPres	SV8270PAHSIM 4ozClr-NoPres	TS 2ozClr-NoPres	TS, pH 2ozClr-NoPres	V8260 40mlAmb/MeOH5ml/Syr	V8260BTEXM 40mlAmb/MeOH5ml/Syr	Volatile Screen 2ozClr-NoPres	Remarks	Sample # (lab only)
B6-1	Grab	SS	4.5	3/25/20	13:00	5			X	X		X	X	X		X		-09
B6-2		SS	14.5	3/25/20	13:20	5			X	X		X	X	X		X		-10
B7-1		SS	6.0	3/25/20	13:45	5			X	X		X	X	X		X		-11
B7-2		SS	10.5	3/25/20	13:50	5			X	X		X	X	X		X		-12
B8-1		SS	5.5	3/25/20	14:10	5			X	X		X	X	X		X		-13
B8-2		SS	10.5	3/25/20	14:20	5			X	X		X	X	X		X		-14
~~B9-1~~ B9		SS	10.0	3/25/20	14:40	5			X	X		X	X	X		X		-15
~~B9-2~~	Grab	SS				5			X	X		X	X	X		X		
		SS				5	X		X				X	X		X		
		SS				5	X		X				X	X		X		

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Relinquished by: (Signature) to Bodine Storage — Date: 3/25/20 — Time: 17:00

Received by: (Signature) Bodine Storage

Trip Blank Received: Yes / No — HCL / MeoH — TBR

Relinquished by: (Signature) Bodine Storage — Date: 3/26/20 — Time: 15:00

Received by: (Signature)

Temp: 1.8-.1=1.7 °C — Bottles Received: 35

If preservation required by Login: Date/Time

Relinquished by: (Signature) to FedEx — Date: 3/26/20 — Time: 16:00

Received for lab by: (Signature)

Date: 3-27 — Time: 0830

Hold:

Condition: NCF OK

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L1203485

1133

Acctnum: BODINENV
Template: T165202
Prelogin: P763505
PM: 341 - John Hawkins
PB: KC 3/20

Shipped Via: FedEX Standard

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: X N
Bottles arrive intact: X N
Correct bottles used: X N
Sufficient volume sent: X N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: X N

APPENDIX C

BORING LOGS

BODINE ENVIRONMENTAL SERVICES, INC.
5350 EAST FIREHOUSE ROAD
DECATUR, ILLINOIS

Field Boring Log/Groundwater Monitoring Well Construction Diagram

		BORING:	B1
CLIENT:	City of Shelbyville - Shelby Engineering	BODINE JOB #:	127051
PROJECT LOCATION:	Morgan and South 1st Streets, Shelbyville, Illinois	DATE:	March 25, 2020
DRILLER:	Heartland Drilling and Remediation	BORING METHOD:	Direct Push Probe
FIELD SCIENTIST:	Robert Rogers, P.E.	SAMPLE METHOD:	Four-foot Macro Tube

SOIL DESCRIPTION	Depth (feet)	Sample Number	Rec. %	PID (meter units)	Remarks
Asphalt	1			0	
Brick					
Tan Clay w/sand uniform, moist, soft	2		50		
No recovery - presumed clay	3				
Tan Clay uniform, slightly firm	4				
Tan mottled gray Clay trace fine gravel mottled, moist	5 6 7		100	0	
Tan Silt w/clay trace $\frac{1}{8}$" gravel mottled, moist, firm	8 9			0.2 1.5	
Tan Clay w/silt & fine gravel mottled, moist, firm	10 11 12	B1–1*	100	127.5 6.7 1.3	*Petroleum odor*
Brown Clay w/fine gravel mottled, moist *tan @ 13.5'*	13			3.2	
gray, uniform @ 14.5' *medium soft @ 15.0'*	14 15 16 17	B1–2*	100	0	
End of boring 18.0'	18		100		
	19 20 21 22 23 24 25 26 27 28 29				

WELL CONSTRUCTION NOTES	
WELL DIAMETER	*N/A*
SCREEN SLOT SIZE	*N/A*
GROUND ELEVATION	*UNK.*
PVC ELEVATION	*N/A*
DEVELOPMENT METHOD	*N/A*

WATER LEVEL OBSERVATIONS	
NOTED ON RODS	*G.T. 18.0 FT BGS*
AT COMPLETION	*N/A*
BEFORE DEVELOPMENT	*N/A*

SOIL BORING NOTES

PID – Photoionization Detector
REC % – Recovery Percentage
ND – None Detected
* – Sample Selected for Laboratory Analysis

BODINE ENVIRONMENTAL SERVICES, INC.
5350 EAST FIREHOUSE ROAD
DECATUR, ILLINOIS

Field Boring Log/Groundwater Monitoring Well Construction Diagram

		BORING:	B2
CLIENT:	City of Shelbyville – Shelby Engineering	BODINE JOB #:	127051
PROJECT LOCATION:	Morgan and South 1st Streets, Shelbyville, Illinois	DATE:	March 25, 2020
DRILLER:	Heartland Drilling and Remediation	BORING METHOD:	Direct Push Probe
FIELD SCIENTIST:	Robert Rogers, P.E.	SAMPLE METHOD:	Four-foot Macro Tube

SOIL DESCRIPTION	Soil Column	Depth (feet)	Sample Number	Rec. %	PID (meter units)	Remarks
Asphalt		1				
Concrete		2		100		
Gravel		3				
Brown Silt uniform, moist, firm		4				
light brown, mottled @ 4.0'		5				
brown @ 5.0'		6	B2–1*	100		
Brown Silt w/sand & $\frac{1}{8}$ - $\frac{1}{4}$" gravel mottled, very moist, firm		7				
Brown Silt mottled, moist, firm		8				
Brown Silt w/clay mottled, moist, firm		9			0	
Brown Clay w/silt trace $\frac{1}{4}$" gravel mottled, moist, firm		10		100		
Brown Silt mottled, moist, firm trace gravel @ 10.0'		11				
		12				
		13				
		14		100		
		15				
brown w/gray, trace $\frac{1}{4}$" gravel @ 16.0'		16				
		17				
		18	B2–2*	100		
End of boring 18.0'		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
		28				
		29				

WELL CONSTRUCTION NOTES

WELL DIAMETER	*N/A*
SCREEN SLOT SIZE	*N/A*
GROUND ELEVATION	*UNK.*
PVC ELEVATION	*N/A*
DEVELOPMENT METHOD	*N/A*

WATER LEVEL OBSERVATIONS

NOTED ON RODS	*6.0 FT BGS*
AT COMPLETION	*N/A*
BEFORE DEVELOPMENT	*N/A*

SOIL BORING NOTES

PID – Photoionization Detector
REC % – Recovery Percentage
ND – None Detected
* – Sample Selected for Laboratory Analysis

BODINE ENVIRONMENTAL SERVICES, INC.
5350 EAST FIREHOUSE ROAD
DECATUR, ILLINOIS

Field Boring Log/Groundwater Monitoring Well Construction Diagram

		BORING:	B3
CLIENT:	*City of Shelbyville - Shelby Engineering*	BODINE JOB #:	127051
PROJECT LOCATION:	***Morgan and South 1st Streets, Shelbyville,*** Illinois	DATE:	March 25, 2020
DRILLER:	Heartland Drilling and Remediation	BORING METHOD:	Direct Push Probe
FIELD SCIENTIST:	Robert Rogers, P.E.	SAMPLE METHOD:	Four-foot Macro Tube

SOIL DESCRIPTION	Soil Column	Depth (feet)	Sample Number	Rec. %	PID (meter units)	Remarks
Asphalt		1		50	0	
Concrete						
Gravel		2				
No recovery		3				
		4				
Brown Clay w/¼" gravel mottled, moist, medium soft		5				
Brown Silt w/clay ttrace fine gravel mottled, moist, soft		6		100		
trace sand w/gravel @ 7.0'		7	B3–1*			
Brown Clay w/silt mottled, moist, firm		8				
brown w/rust @ 9.0'		9	B3–2*			
Sand & Gravel brick colored lens		10		100		
Brown w/rust Clay w/silt mottled, moist		11				
		12				
Gray w/brown Clay w/silt & fine gravel		13				
		14		100		
		15				
		16				
		17				
End of boring 18.0'		18		100		
		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
		28				
		29				

WELL CONSTRUCTION NOTES	
WELL DIAMETER	*N/A*
SCREEN SLOT SIZE	*N/A*
GROUND ELEVATION	*UNK.*
PVC ELEVATION	*N/A*
DEVELOPMENT METHOD	*N/A*

WATER LEVEL OBSERVATIONS	
NOTED ON RODS	*9.5 FT BGS*
AT COMPLETION	*N/A*
BEFORE DEVELOPMENT	*N/A*

SOIL BORING NOTES
PID – Photoionization Detector
REC % – Recovery Percentage
ND – None Detected
* – Sample Selected for Laboratory Analysis

BODINE ENVIRONMENTAL SERVICES, INC.
5350 EAST FIREHOUSE ROAD
DECATUR, ILLINOIS

Field Boring Log/Groundwater Monitoring Well Construction Diagram

		BORING:	B4
CLIENT:	City of Shelbyville – Shelby Engineering	BODINE JOB #:	127051
PROJECT LOCATION:	Morgan and South 1st Streets, Shelbyville, Illinois	DATE:	March 25, 2020
DRILLER:	Heartland Drilling and Remediation	BORING METHOD:	Direct Push Probe
FIELD SCIENTIST:	Robert Rogers, P.E.	SAMPLE METHOD:	Four-foot Macro Tube

SOIL DESCRIPTION	Soil Column	Depth (feet)	Sample Number	Rec. %	PID (meter units)	Remarks
Asphalt		1				*Three separate and distinct attempts were made to retrieve more soil.*
Concrete						
Silt and Gravel fill moist		2		37.5		
		3				
		4				
Gray Clay very soft moist		5				
		6		37.5		
		7				
w/glass containing fill @ 8.0'		8			0	
		9				
		10		37.5		
		11				
		12				
		13				
fill lens encountered @ 14.0'		14	B4*	100		
		15				
		16				
End of boring 16.0'		17				
		18				
		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
		28				
		29				

WELL CONSTRUCTION NOTES	
WELL DIAMETER	*N/A*
SCREEN SLOT SIZE	*N/A*
GROUND ELEVATION	*UNK.*
PVC ELEVATION	*N/A*
DEVELOPMENT METHOD	*N/A*

WATER LEVEL OBSERVATIONS	
NOTED ON RODS	*G.T. 16.0 FT BGS*
AT COMPLETION	*N/A*
BEFORE DEVELOPMENT	*N/A*

SOIL BORING NOTES
PID – Photoionization Detector
REC % – Recovery Percentage
ND – None Detected
* – Sample Selected for Laboratory Analysis

BODINE ENVIRONMENTAL SERVICES, INC.
5350 EAST FIREHOUSE ROAD
DECATUR, ILLINOIS

Field Boring Log/Groundwater Monitoring Well Construction Diagram

		BORING:	B5
CLIENT:	*City of Shelbyville - Shelby Engineering*	BODINE JOB #:	127051
PROJECT LOCATION:	***Morgan and South 1st Streets, Shelbyville,*** Illinois	DATE:	March 25, 2020
DRILLER:	Heartland Drilling and Remediation	BORING METHOD:	Direct Push Probe
FIELD SCIENTIST:	Robert Rogers, P.E.	SAMPLE METHOD:	Four-foot Macro Tube

SOIL DESCRIPTION	Soil Column	Depth (feet)	Sample Number	Rec. %	PID (meter units)	Remarks
Asphalt *Gravel* *Black silty, gravelly fill mottled, moist* *No recovery - presumed fill*		1–3		37.5	0	
Brown Clay trace fine gravel mottled, moist, soft		4–5				
No recovery - presumed soft clay as above and below		6–7		50		
Brown Clay mottled, moist, soft *gray, very moist, trace fine gravel & fill material @ 10.0'*		8–13		100		
		14	B5*	100		
End of boring 16.0'		15–16				
		17–29				

WELL CONSTRUCTION NOTES	
WELL DIAMETER	*N/A*
SCREEN SLOT SIZE	*N/A*
GROUND ELEVATION	*UNK.*
PVC ELEVATION	*N/A*
DEVELOPMENT METHOD	*N/A*

WATER LEVEL OBSERVATIONS	
NOTED ON RODS	*G.T. 16.0 FT BGS*
AT COMPLETION	*N/A*
BEFORE DEVELOPMENT	*N/A*

SOIL BORING NOTES

PID – Photoionization Detector
REC % – Recovery Percentage
ND – None Detected
* – Sample Selected for Laboratory Analysis

BODINE ENVIRONMENTAL SERVICES, INC.
5350 EAST FIREHOUSE ROAD
DECATUR, ILLINOIS

Field Boring Log/Groundwater Monitoring Well Construction Diagram

BORING:	B6		
CLIENT:	City of Shelbyville – Shelby Engineering	BODINE JOB #:	127051
PROJECT LOCATION:	Morgan and South 1st Streets, Shelbyville, Illinois	DATE:	March 25, 2020
DRILLER:	Heartland Drilling and Remediation	BORING METHOD:	Direct Push Probe
FIELD SCIENTIST:	Robert Rogers, P.E.	SAMPLE METHOD:	Four-foot Macro Tube

SOIL DESCRIPTION	Depth (feet)	Sample Number	Rec. %	PID (meter units)	Remarks
Asphalt *Brick* *Gravel* *Black Silt trace fill material, cinders, brick uniform, moist, soft*	1–4		100	0	
Brown Silty fill mottled, moist	4–5	B6–1*			
Brown Clay w/gravel and trace fill material soft	5–8		100		
Brown Clay w/trace gravel and fill material mottled, moist, soft	8–10		50		
No recovery - presumed same as above and below	10–12				
Brown Clay w/trace gravel and fill material soft *wood pieces @ 14.0'*	12–15	B6–2*	100		
End of boring 18.0'	15–18		100		
	18–29				

WELL CONSTRUCTION NOTES

WELL DIAMETER	*N/A*
SCREEN SLOT SIZE	*N/A*
GROUND ELEVATION	*UNK.*
PVC ELEVATION	*N/A*
DEVELOPMENT METHOD	*N/A*

WATER LEVEL OBSERVATIONS

NOTED ON RODS	*G.T. 18.0 FT BGS*
AT COMPLETION	*N/A*
BEFORE DEVELOPMENT	*N/A*

SOIL BORING NOTES

PID – Photoionization Detector
REC % – Recovery Percentage
ND – None Detected
* – Sample Selected for Laboratory Analysis

BODINE ENVIRONMENTAL SERVICES, INC.
5350 EAST FIREHOUSE ROAD
DECATUR, ILLINOIS

Field Boring Log/Groundwater Monitoring Well Construction Diagram

		BORING:	B7
CLIENT:	City of Shelbyville – Shelby Engineering	BODINE JOB #:	127051
PROJECT LOCATION:	Morgan and South 1st Streets, Shelbyville, Illinois	DATE:	March 25, 2020
DRILLER:	Heartland Drilling and Remediation	BORING METHOD:	Direct Push Probe
FIELD SCIENTIST:	Robert Rogers, P.E.	SAMPLE METHOD:	Four-foot Macro Tube

SOIL DESCRIPTION	Soil Column	Depth (feet)	Sample Number	Rec. %	PID (meter units)	Remarks
Asphalt		1				
Concrete						
Gravel		2		100		
Brown Silt w/fill mottled, moist, soft		3				
black, uniform, firm @ 2.0'		4				
brown, mottled, soft @ 4.5'		5				
Brick Silt w/brick pieces mottled, moist		6	B7–1*	100		
Gray Clay w/fill mottled, wet, soft		7				
No recovery - presumed clay		8				
Gray Clay w/fill mottled, moist, soft		9			0	
black, very soft, very moist @ 10.0'		10		75		
		11	B7–2*			
No recovery - presumed clay		12				
Gray Clay mottled, moist, soft		13				
Gray Silt w/¼" gravel mottled, moist, very firm		14		100		
		15				
		16				
		17				
End of boring 18.0'		18		100		
		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
		28				
		29				

WELL CONSTRUCTION NOTES

WELL DIAMETER	*N/A*
SCREEN SLOT SIZE	*N/A*
GROUND ELEVATION	*UNKNOWN*
PVC ELEVATION	*N/A*
DEVELOPMENT METHOD	*N/A*

WATER LEVEL OBSERVATIONS

NOTED ON RODS	*G.T. 18.0 FT BGS*
AT COMPLETION	*N/A*
BEFORE DEVELOPMENT	*N/A*

SOIL BORING NOTES

PID – Photoionization Detector
REC % – Recovery Percentage
ND – None Detected
* – Sample Selected for Laboratory Analysis

BODINE ENVIRONMENTAL SERVICES, INC.
5350 EAST FIREHOUSE ROAD
DECATUR, ILLINOIS

Field Boring Log/Groundwater Monitoring Well Construction Diagram

		BORING:	B8
CLIENT:	*City of Shelbyville - Shelby Engineering*	BODINE JOB #:	127051
PROJECT LOCATION:	*Morgan and South 1st Streets, Shelbyville,* Illinois	DATE:	March 25, 2020
DRILLER:	Heartland Drilling and Remediation	BORING METHOD:	Direct Push Probe
FIELD SCIENTIST:	Robert Rogers, P.E.	SAMPLE METHOD:	Four-foot Macro Tube

SOIL DESCRIPTION	Depth (feet)	Sample Number	Rec. %	PID (meter units)	Remarks
Asphalt	1				
Brick					
Gravel					
Black Silt w/fill mottled, moist, firm	2		100		
	3				
red, soft @ 4.0'	4				
	5				
	6	B7–1*	100		
Gray Clay w/fill mottled, moist, soft	7				
	8				
	9				
gray w/black @ 10.0'	10		50	0	
gray, firm @ 11.0'	11	B7–2*			
Gray Clay mottled, moist, firm	12				
Gray Clay w/¼" gravel mottled, moist, soft	13				
Gray Silt w/¼" gravel mottled, dry, firm	14		100		
brown @ 15.0'	15				
	16				
Brown Silt w/trace fine gravel mottled, dry, very firm	17				
	18		100		
	19				
	20				
End of boring 20.0'	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				

WELL CONSTRUCTION NOTES

WELL DIAMETER	*N/A*
SCREEN SLOT SIZE	*N/A*
GROUND ELEVATION	*UNKNOWN*
PVC ELEVATION	*N/A*
DEVELOPMENT METHOD	*N/A*

WATER LEVEL OBSERVATIONS

NOTED ON RODS	*G.T. 20.0 FT BGS*
AT COMPLETION	*N/A*
BEFORE DEVELOPMENT	*N/A*

SOIL BORING NOTES

PID – Photoionization Detector
REC % – Recovery Percentage
ND – None Detected
* – Sample Selected for Laboratory Analysis

BODINE ENVIRONMENTAL SERVICES, INC.
5350 EAST FIREHOUSE ROAD
DECATUR, ILLINOIS

Field Boring Log/Groundwater Monitoring Well Construction Diagram

		BORING:	B9
CLIENT:	City of Shelbyville – Shelby Engineering	BODINE JOB #:	127051
PROJECT LOCATION:	Morgan and South 1st Streets, Shelbyville, Illinois	DATE:	March 25, 2020
DRILLER:	Heartland Drilling and Remediation	BORING METHOD:	Direct Push Probe
FIELD SCIENTIST:	Robert Rogers, P.E.	SAMPLE METHOD:	Four-foot Macro Tube

SOIL DESCRIPTION	Soil Column	Depth (feet)	Sample Number	Rec. %	PID (meter units)	Remarks
Brick		1				
Gravel						
Brown Clay mottled, media, soft		2		100		
		3				
Red Silt mottled, moist, soft		4				
Brown Clay mottled, moist, soft		5				
		6		100		
		7				
Brown Silt mottled, moist, very firm		8				
		9				
Brown Sand uniform, moist, soft		10		100	0	
		11	B9*			
		12				
		13				
		14		100		
		15				
		16				
		17				
		18		100		
		19				
		20				
End of boring 20.0'		21				
		22				
		23				
		24				
		25				
		26				
		27				
		28				
		29				

WELL CONSTRUCTION NOTES	
WELL DIAMETER	*N/A*
SCREEN SLOT SIZE	*N/A*
GROUND ELEVATION	*UNKNOWN*
PVC ELEVATION	*N/A*
DEVELOPMENT METHOD	*N/A*

WATER LEVEL OBSERVATIONS	
NOTED ON RODS	*G.T. 20.0 FT BGS*
AT COMPLETION	*N/A*
BEFORE DEVELOPMENT	*N/A*

SOIL BORING NOTES
PID – Photoionization Detector
REC % – Recovery Percentage
ND – None Detected
* – Sample Selected for Laboratory Analysis

Shelbyville City Hall

From: Shelby County Highway Department <shelbycohwy@consolidated.net>
Sent: Monday, July 2, 2018 2:58 PM
To: cityhall@consolidated.net
Subject: Re: IDOT billing

Yes please pay it.

Alan

Sent from my iPhone

On Jul 2, 2018, at 2:15 PM, cityhall@consolidated.net wrote:

> Alan,
>
> Is this ok to pay?
>
> Kelly
>
> <7.2.18 idot billing.pdf>