Contract No.: 62R25

Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification
by Licensed Professional Engineer or Licensed Professional Geologist
for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as
amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAI I-80 (I-80) at IL 7 (Larkin Avenue) Office Phone Number, if available:

Physical Site Location (address, including number and street):
I-80 and Larkin Avenue (IL 7) Interchange

City: Rockdale, Joliet, Unincorp. State: IL Zip Code: 60436

County: Will Township: Joliet

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.51133 (Decimal Degrees) Longitude: - 88.12433 (-Decimal Degrees)

Identify how the lat/long data were determined:

◯ GPS ⊘ Map Interpolation ◯ Photo Interpolation ◯ Survey ◯ Other

Additional BOLs: 1978093008, 1970453019

IEPA Site Number(s), if assigned: BOL: 1970453023 BOW: BOA:

Approximate Start Date (mm/dd/yyyy): N/A Approximate End Date (mm/dd/yyyy): N/A

Estimated Volume of debris (cu. Yd.): 15,423

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation
Street Address: 201 West Center Court
PO Box:
City: Schaumburg State: IL
Zip Code: 60196-1096 Phone: 847-705-4122
Contact: Irma Romiti-Johnson
Email, if available: Irma Romiti-Johnson@illinois.gov

Site Operator

Name: Illinois Department of Transportation
Street Address: 201 West Center Court
PO Box:
City: Schaumburg State: IL
Zip Code: 60196-1096 Phone: 847-705-4122
Contact: Irma Romiti-Johnson
Email, if available: Irma Romiti-Johnson@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

LOCATIONS 2233V3-1-B136, -B137, -B138, -B142, -B143, -B176, -B178, -B181 THRU -B184, -B198, -B210, -B213, -B227, -B229, -B235, -B239, -B245, AND -B247 WERE SAMPLED ADJACENT TO SITE 2233V3-1. SEE TABLE 3 AND FIGURES 2 THROUGH 9 OF THE FINAL PRELIMINARY SITE INVESTIGATION REPORT.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0,including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

EUROFINS ANALYTICAL REPORT - EUROFINS JOB ID NUMBERS: 500-232642-1, 500-233041-1, 500-233155-1, 500-233039-1, 500-246323-1, 500-245966-1, 500-246014-1, 500-246015-1 AND 500-247569-1.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Savo Radulovic, L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name:	Andrews Engineering, Inc.
Street Address:	420 Eisenhower Lane North
City:	Lombard State: IL Zip Code: 60148
Phone:	630-953-3332

Savo Radulovic
Printed Name:

Licensed Professional Engineer or Licensed Professional Geologist Signature:

May 31, 2024
Date:

The following table summarizes the results of laboratory analysis of site soil samples. In reading the table,

- Only parameters reported at concentrations above the most stringent MAC are listed.

- Samples with the notation **“No Contaminants of Concern Noted”** were below the most stringent MAC.

The laboratory report for site soils follows this summary table.

THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

ANALYTICAL PARAMETERS

Volatile Organic Compounds (mg/kg)
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,2-Dichloroethane
1,2-Dichloropropane
1,3-Dichloropropene
2-Butanone (MEK)
2-Hexanone (MBK)
4-Methyl-2-pentanone (MIBK)
Acetone
Benzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon disulfide
Carbon Tetrachloride
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethene
cis-1,3-Dichloropropene
Dibromochloromethane
Ethylbenzene
Methylene chloride
Methyl-tert-butyl-ether (MTBE)
Styrene
Tetrachloroethene
Toluene
trans-1,2-Dichloroethene
trans-1,3-Dichloropropene
Trichloroethene
Vinyl acetate
Vinyl chloride
Xylenes, total
Semivolatile Organic Compounds (mg/kg)
1,2,4-Trichlorobenzene
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
2,4-Dinitrophenol
2,4-Dinitrotoluene

THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

ANALYTICAL PARAMETERS

Semivolatile Organic Compounds (mg/kg)
2,6-Dinitrotoluene
2-Chloronaphthalene
2-Chlorophenol
2-Methylnaphthalene
2-Methylphenol
2-Nitroaniline
2-Nitrophenol
3,3´-Dichlorobenzidine
3-Nitroaniline
4,6-Dinitro-2-methylphenol
4-Bromophenyl phenyl ether
4-Chloro-3-methylphenol
4-Chloroaniline
4-Chlorophenyl phenyl ether
4-Methylphenol
4-Nitroaniline
4-Nitrophenol
Acenaphthene
Acenaphthylene
Anthracene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(g,h,i)perylene
Benzo(k)fluoranthene
Bis(2-chloroethoxy)methane
Bis(2-chloroethyl)ether
Bis(2-chloroisopropyl)ether
Bis(2-ethylhexyl)phthalate
Butyl benzyl phthalate
Carbazole
Chrysene
Dibenzo(a,h)anthracene
Dibenzofuran
Diethyl phthalate
Dimethyl phthalate
Di-n-butyl phthalate
Di-n-octyl phthalate
Fluoranthene
Fluorene
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclopentadiene
Hexachloroethane
Indeno(1,2,3-cd)pyrene
Isophorone
Naphthalene
Nitrobenzene

THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

ANALYTICAL PARAMETERS

Semivolatile Organic Compounds (mg/kg)
N-Nitrosodi-n-propylamine
N-Nitrosodiphenylamine
Pentachlorophenol
Phenanthrene
Phenol
Pyrene
Inorganic Compounds, Total (mg/kg)
Antimony
Arsenic
Barium
Beryllium
Boron
Cadmium
Chromium
Cobalt
Copper
Iron
Lead
Manganese
Mercury
Nickel
Selenium
Silver
Thallium
Vanadium
Zinc
Cyanide
TCLP/SPLP Inorganics (mg/L)
Antimony
Barium
Beryllium
Boron
Cadmium
Chromium
Cobalt
Iron
Lead
Manganese
Mercury
Nickel
Selenium
Silver
Thallium
Zinc
Cyanide

ISGS Site 2233V3-1
ROW

Sample ID	2233V3-1-B136		2233V3-1-B137		2233V3-1-B138		2233V3-1-B138 DUP		2233V3-1-B142		**Maximum Allowable Concentration**				
Sample Depth (ft)	0-8		0-8		0-8		0-8		0-8						
Sample Date	5/1/2023		5/1/2023		5/1/2023		5/1/2023		4/20/2023						
PID	0		0		0		0		0						
Sample pH	8.5		8.1		9		9		7.9		[1] Most Stringent	[2] Outside a Populated Area	[3] Within a Populated non-Metropolitan Statistical Area	[4] Within Chicago Corporate Limits	[5] Within a Metropolitan Statistical Area
Matrix	Soil		Soil		Soil		Soil		Soil						
Semivolatile Organic Compounds (mg/kg)															
Benzo(a)pyrene	**0.082**		**0.059**		ND		**0.12**	**1,2**	**0.051**		0.09	0.09	0.98	11.4	2.1
Inorganic Compounds, Total (mg/kg)															
Arsenic	**11**		**9.5**		**11**		**8**		**7**		11.3	--	11.3	--	13

Sample ID	2233V3-1-B143		2233V3-1-B176-1		2233V3-1-B176-2		2233V3-1-B176-2 DUP		2233V3-1-B176-3		**Maximum Allowable Concentration**				
Sample Depth (ft)	0-8		0-7		7-14		7-14		14-17						
Sample Date	4/20/2023		4/28/2023		4/28/2023		4/28/2023		4/28/2023						
PID	0		0		0		0		0						
Sample pH	7.7		8.6		7.8		7.9		7.9		[1] Most Stringent	[2] Outside a Populated Area	[3] Within a Populated non-Metropolitan Statistical Area	[4] Within Chicago Corporate Limits	[5] Within a Metropolitan Statistical Area
Matrix	Soil		Soil		Soil		Soil		Soil						
Semivolatile Organic Compounds (mg/kg)															
Benzo(a)pyrene	ND		ND		ND		ND		ND		0.09	0.09	0.98	11.4	2.1
Inorganic Compounds, Total (mg/kg)															
Arsenic	**8**		**8.1**		**8.5**		**7.5**		**5.7**		11.3	--	11.3	--	13

Sample ID	2233V3-1-B178		2233V3-1-B181		2233V3-1-B181 DUP		2233V3-1-B182		2233V3-1-B183		**Maximum Allowable Concentration**				
Sample Depth (ft)	0-8		0-8		0-8		0-8		0-8						
Sample Date	4/28/2023		4/20/2023		4/20/2023		4/20/2023		4/27/2023						
PID	0		0		0		0		0						
Sample pH	8.6		8.7		8.2		8		7.9		[1] Most Stringent	[2] Outside a Populated Area	[3] Within a Populated non-Metropolitan Statistical Area	[4] Within Chicago Corporate Limits	[5] Within a Metropolitan Statistical Area
Matrix	Soil		Soil		Soil		Soil		Soil						
Semivolatile Organic Compounds (mg/kg)															
Benzo(a)pyrene	ND		ND		ND		ND		**0.079**		0.09	0.09	0.98	11.4	2.1
Inorganic Compounds, Total (mg/kg)															
Arsenic	**9.5**		**9.3**		**10**		**8.7**		**5.5**		11.3	--	11.3	--	13

Sample ID	2233V3-1-B184		2233V3-1-B184 DUP		2233V3-1-B198		2233V3-1-B210-1		2233V3-1-B210-2		**Maximum Allowable Concentration**				
Sample Depth (ft)	0-8		0-8		0-4		0-6.5		6.5-13						
Sample Date	4/27/2023		4/27/2023		2/15/2024		2/8/2024		2/8/2024						
PID	0		0		0		0		0						
Sample pH	7.3		7.5		8.7		7.4		6.8		[1] Most Stringent	[2] Outside a Populated Area	[3] Within a Populated non-Metropolitan Statistical Area	[4] Within Chicago Corporate Limits	[5] Within a Metropolitan Statistical Area
Matrix	Soil		Soil		Soil		Soil		Soil						
Semivolatile Organic Compounds (mg/kg)															
Benzo(a)pyrene	ND		ND		ND		ND		ND		0.09	0.09	0.98	11.4	2.1
Inorganic Compounds, Total (mg/kg)															
Arsenic	**8.1**		**11**		**8.1**		**11**		**8.1**		11.3	--	11.3	--	13

ISGS Site 2233V3-1
ROW

Sample ID	2233V3-1-B213-1		2233V3-1-B213-2		2233V3-1-B227-1		2233V3-1-B227-2		2233V3-1-B229-1		**Maximum Allowable Concentration**				
Sample Depth (ft)	0-7.5		7.5-15		0-7.5		7.5-15		0-7.5						
Sample Date	2/8/2024		2/8/2024		2/9/2024		2/9/2024		2/15/2024						
PID	0		0		0		0		0						
Sample pH	6.3		6.9		7.6		7.2		8.8		[1] Most Stringent	[2] Outside a Populated Area	[3] Within a Populated non-Metropolitan Statistical Area	[4] Within Chicago Corporate Limits	[5] Within a Metropolitan Statistical Area
Matrix	Soil		Soil		Soil		Soil		Soil						
Semivolatile Organic Compounds (mg/kg)															
Benzo(a)pyrene	**0.058**		ND		**0.043**		ND		ND		0.09	0.09	0.98	11.4	2.1
Inorganic Compounds, Total (mg/kg)															
Arsenic	**8.6**		**8.8**		**7.1**		**10**		**11**		11.3	--	11.3	--	13

Sample ID	2233V3-1-B229-2		2233V3-1-B235-1		2233V3-1-B235-1 DUP		2233V3-1-B235-2		2233V3-1-B239-1		**Maximum Allowable Concentration**				
Sample Depth (ft)	7.5-15		0-7.5		0-7.5		7.5-15		0-7.5						
Sample Date	2/15/2024		2/15/2024		2/15/2024		2/15/2024		2/8/2024						
PID	0		0		0		0		0						
Sample pH	8.3		8.1		8.1		7.8		7.6		[1] Most Stringent	[2] Outside a Populated Area	[3] Within a Populated non-Metropolitan Statistical Area	[4] Within Chicago Corporate Limits	[5] Within a Metropolitan Statistical Area
Matrix	Soil		Soil		Soil		Soil		Soil						
Semivolatile Organic Compounds (mg/kg)															
Benzo(a)pyrene	ND		ND		ND		ND		ND		0.09	0.09	0.98	11.4	2.1
Inorganic Compounds, Total (mg/kg)															
Arsenic	**12**	**1,3**	**6.8**		**8.6**		**8.8**		**4.8**		11.3	--	11.3	--	13

Sample ID	2233V3-1-B239-2		2233V3-1-B245-1		2233V3-1-B245-2		2233V3-1-B247		**Maximum Allowable Concentration**				
Sample Depth (ft)	7.5-15		0-7.5		7.5-15		0-4						
Sample Date	2/8/2024		2/9/2024		2/9/2024		3/14/2024						
PID	0		0		0		0						
Sample pH	7.9		8.3		8.1		8.2		[1] Most Stringent	[2] Outside a Populated Area	[3] Within a Populated non-Metropolitan Statistical Area	[4] Within Chicago Corporate Limits	[5] Within a Metropolitan Statistical Area
Matrix	Soil		Soil		Soil		Soil						
Semivolatile Organic Compounds (mg/kg)													
Benzo(a)pyrene	ND		ND		ND		**0.16**	**1,2**	0.09	0.09	0.98	11.4	2.1
Inorganic Compounds, Total (mg/kg)													
Arsenic	**9**		**7.5**		**8.4**		**6.4**		11.3	--	11.3	--	13

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Colleen Grey
Andrews Engineering Inc.
3300 Ginger Creek Drive
Springfield, Illinois 62711

Generated 5/17/2023 12:39:17 PM

JOB DESCRIPTION

IDOT - AE8-010

JOB NUMBER

500-233155-1

Eurofins Chicago
2417 Bond Street
University Park IL 60484

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

Authorization

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Authorized for release by
Jodie Bracken, Project Management Assistant II
Jodie.Bracken@et.eurofinsus.com
(708)534-5200

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233155-1

Client Sample ID: 2233V3-1-B136
Date Collected: 05/01/23 11:20
Date Received: 05/02/23 13:40

Lab Sample ID: 500-233155-15
Matrix: Solid
Percent Solids: 82.4

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Acetone	**0.020**		0.017	0.0075	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1
Xylenes, Total	<0.0035		0.0035	0.00055	mg/Kg	☼	05/02/23 17:48	05/03/23 20:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 134*	*05/02/23 17:48*	*05/03/23 20:32*	*1*
4-Bromofluorobenzene (Surr)	*89*		*75 - 131*	*05/02/23 17:48*	*05/03/23 20:32*	*1*
Dibromofluoromethane	*101*		*75 - 126*	*05/02/23 17:48*	*05/03/23 20:32*	*1*
Toluene-d8 (Surr)	*88*		*75 - 124*	*05/02/23 17:48*	*05/03/23 20:32*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.028	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
1,2-Dichlorobenzene	<0.20		0.20	0.016	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
1,3-Dichlorobenzene	<0.20		0.20	0.018	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
1,4-Dichlorobenzene	<0.20		0.20	0.019	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.028	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233155-1

Client Sample ID: 2233V3-1-B136
Date Collected: 05/01/23 11:20
Date Received: 05/02/23 13:40

Lab Sample ID: 500-233155-15
Matrix: Solid
Percent Solids: 82.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.015	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
2,4,6-Trichlorophenol	<0.39		0.39	0.013	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
2,4-Dichlorophenol	<0.39		0.39	0.014	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
2,4-Dimethylphenol	<0.39		0.39	0.089	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
2,4-Dinitrophenol	<0.80		0.80	0.23	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
2,4-Dinitrotoluene	<0.20		0.20	0.023	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
2,6-Dinitrotoluene	<0.20		0.20	0.013	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
2-Chloronaphthalene	<0.20		0.20	0.015	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
2-Chlorophenol	<0.20		0.20	0.013	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
2-Methylnaphthalene	<0.080		0.080	0.0079	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
2-Methylphenol	<0.20		0.20	0.021	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
2-Nitroaniline	<0.20		0.20	0.021	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
2-Nitrophenol	<0.39		0.39	0.027	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
3 & 4 Methylphenol	<0.20		0.20	0.029	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.032	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
3-Nitroaniline	<0.39		0.39	0.018	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.22	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.027	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
4-Chloro-3-methylphenol	<0.39		0.39	0.015	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
4-Chloroaniline	<0.80		0.80	0.42	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
4-Nitroaniline	<0.39		0.39	0.029	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
4-Nitrophenol	<0.80		0.80	0.15	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Acenaphthene	<0.039		0.039	0.0081	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Acenaphthylene	**0.019**	**J**	0.039	0.0067	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Anthracene	**0.011**	**J**	0.039	0.0081	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Benzo[a]anthracene	**0.064**		0.039	0.0084	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Benzo[a]pyrene	**0.082**		0.039	0.038	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Benzo[b]fluoranthene	**0.098**		0.039	0.038	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Benzo[g,h,i]perylene	**0.055**		0.039	0.0086	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Benzo[k]fluoranthene	**0.038**	**J**	0.039	0.015	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.015	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.018	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.16	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Butyl benzyl phthalate	<0.20		0.20	0.020	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Carbazole	<0.20		0.20	0.016	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Chrysene	**0.062**		0.039	0.010	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Dibenz(a,h)anthracene	<0.039		0.039	0.039	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Dibenzofuran	<0.20		0.20	0.014	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Diethyl phthalate	<0.20		0.20	0.018	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Dimethyl phthalate	<0.20		0.20	0.0086	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Di-n-butyl phthalate	<0.20		0.20	0.013	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Di-n-octyl phthalate	<0.39		0.39	0.28	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Fluoranthene	**0.084**		0.039	0.0092	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Fluorene	<0.039		0.039	0.012	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Hexachlorobenzene	<0.080		0.080	0.0076	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Hexachlorobutadiene	<0.20		0.20	0.022	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Hexachlorocyclopentadiene	<0.80		0.80	0.42	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Hexachloroethane	<0.20		0.20	0.020	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233155-1

Client Sample ID: 2233V3-1-B136
Date Collected: 05/01/23 11:20
Date Received: 05/02/23 13:40

Lab Sample ID: 500-233155-15
Matrix: Solid
Percent Solids: 82.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	**0.093**		0.039	0.039	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Isophorone	<0.20		0.20	0.020	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Naphthalene	<0.039		0.039	0.0072	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Nitrobenzene	<0.039		0.039	0.013	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.0078	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
N-Nitrosodiphenylamine	<0.20		0.20	0.024	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Pentachlorophenol	<0.80		0.80	0.099	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Phenanthrene	**0.031**	**J**	0.039	0.0086	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Phenol	<0.20		0.20	0.017	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1
Pyrene	**0.087**		0.039	0.011	mg/Kg	☼	05/11/23 07:45	05/15/23 19:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*49*		*31 - 166*	*05/11/23 07:45*	*05/15/23 19:50*	*1*
Phenol-d5	*53*		*30 - 153*	*05/11/23 07:45*	*05/15/23 19:50*	*1*
Nitrobenzene-d5 (Surr)	*54*		*37 - 147*	*05/11/23 07:45*	*05/15/23 19:50*	*1*
2-Fluorobiphenyl	*72*		*43 - 145*	*05/11/23 07:45*	*05/15/23 19:50*	*1*
2,4,6-Tribromophenol	*66*		*31 - 143*	*05/11/23 07:45*	*05/15/23 19:50*	*1*
Terphenyl-d14 (Surr)	*79*		*42 - 157*	*05/11/23 07:45*	*05/15/23 19:50*	*1*

Method: SW846 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.38**	**J**	1.2	0.23	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Arsenic	**11**		0.58	0.20	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Barium	**78**		0.58	0.067	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Beryllium	**0.85**		0.23	0.055	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Boron	**9.4**		2.9	0.27	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Cadmium	**0.034**	**J**	0.12	0.021	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Calcium	**53000**	**B**	58	9.9	mg/Kg	☼	05/03/23 10:48	05/16/23 22:27	5
Chromium	**16**		0.58	0.29	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Cobalt	**14**		0.29	0.077	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Copper	**21**		0.58	0.16	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Iron	**22000**		12	6.1	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Lead	**17**		0.29	0.13	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Magnesium	**20000**		5.8	2.9	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Manganese	**410**		0.58	0.085	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Nickel	**31**		0.58	0.17	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Potassium	**1900**		29	10	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Selenium	<0.58		0.58	0.34	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Silver	**0.32**		0.29	0.075	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Sodium	**1700**		58	8.6	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Vanadium	**25**		0.29	0.069	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1
Zinc	**79**		1.2	0.51	mg/Kg	☼	05/03/23 10:48	05/16/23 00:33	1

Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		05/05/23 17:00	05/15/23 21:25	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/05/23 17:00	05/15/23 21:25	1
Chromium	<0.025		0.025	0.010	mg/L		05/05/23 17:00	05/15/23 21:25	1
Iron	<0.40		0.40	0.20	mg/L		05/05/23 17:00	05/15/23 21:25	1

Client Sample ID: 2233V3-1-B136

Date Collected: 05/01/23 11:20
Date Received: 05/02/23 13:40

Lab Sample ID: 500-233155-15

Matrix: Solid
Percent Solids: 82.4

Method: SW846 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		05/05/23 17:00	05/15/23 21:25	1
Manganese	**6.7**		0.025	0.010	mg/L		05/05/23 17:00	05/15/23 21:25	1
Nickel	**0.025**		0.025	0.010	mg/L		05/05/23 17:00	05/15/23 21:25	1

Method: SW846 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.11**		0.050	0.010	mg/L		05/05/23 17:01	05/16/23 02:00	1
Barium	**0.98**		0.50	0.050	mg/L		05/05/23 17:01	05/16/23 02:00	1
Beryllium	**0.0093**		0.0040	0.0040	mg/L		05/05/23 17:01	05/16/23 02:00	1
Boron	**0.14**		0.10	0.050	mg/L		05/05/23 17:01	05/16/23 02:00	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/05/23 17:01	05/16/23 02:00	1
Calcium	**39**		2.5	0.50	mg/L		05/05/23 17:01	05/16/23 02:00	1
Chromium	**0.18**		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:00	1
Cobalt	**0.090**		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:00	1
Iron	**230**		0.40	0.20	mg/L		05/05/23 17:01	05/16/23 02:00	1
Lead	**0.27**		0.0075	0.0075	mg/L		05/05/23 17:01	05/16/23 02:00	1
Manganese	**2.7**		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:00	1
Nickel	**0.24**		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:00	1
Potassium	**21**		2.5	0.50	mg/L		05/05/23 17:01	05/16/23 02:00	1
Selenium	<0.050		0.050	0.020	mg/L		05/05/23 17:01	05/16/23 02:00	1
Silver	<0.025		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:00	1
Zinc	**0.82**		0.50	0.020	mg/L		05/05/23 17:01	05/16/23 02:00	1

Method: SW846 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		05/05/23 17:00	05/11/23 15:32	1

Method: SW846 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/05/23 17:01	05/08/23 14:31	1
Thallium	**0.0044**		0.0020	0.0020	mg/L		05/05/23 17:01	05/08/23 14:31	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/15/23 11:40	05/16/23 11:33	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.036**		0.019	0.010	mg/Kg	☼	05/11/23 16:00	05/12/23 10:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.26		0.26	0.13	mg/Kg	☼	05/05/23 08:09	05/05/23 11:40	1
pH (SW846 9045D)	**8.5**		0.2	0.2	SU			05/04/23 19:15	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233155-1

Client Sample ID: 2233V3-1-B137
Date Collected: 05/01/23 11:30
Date Received: 05/02/23 13:40

Lab Sample ID: 500-233155-16
Matrix: Solid
Percent Solids: 81.4

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0020		0.0020	0.00066	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00085	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
1,1-Dichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
1,1-Dichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00069	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
2-Butanone (MEK)	**0.012**		0.0049	0.0022	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0015	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Acetone	**0.071**		0.020	0.0086	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Benzene	<0.0020		0.0020	0.00050	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Bromomethane	<0.0049		0.0049	0.0019	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Carbon tetrachloride	<0.0020		0.0020	0.00057	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Chlorobenzene	<0.0020		0.0020	0.00073	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Chloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Ethylbenzene	<0.0020		0.0020	0.00095	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00058	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Tetrachloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Toluene	<0.0020		0.0020	0.00050	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00088	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00069	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Trichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Vinyl chloride	<0.0020		0.0020	0.00088	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1
Xylenes, Total	<0.0040		0.0040	0.00063	mg/Kg	☼	05/02/23 17:48	05/04/23 16:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 134*	*05/02/23 17:48*	*05/04/23 16:54*	*1*
4-Bromofluorobenzene (Surr)	*93*		*75 - 131*	*05/02/23 17:48*	*05/04/23 16:54*	*1*
Dibromofluoromethane	*100*		*75 - 126*	*05/02/23 17:48*	*05/04/23 16:54*	*1*
Toluene-d8 (Surr)	*90*		*75 - 124*	*05/02/23 17:48*	*05/04/23 16:54*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.029	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
1,2-Dichlorobenzene	<0.20		0.20	0.016	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
1,3-Dichlorobenzene	<0.20		0.20	0.018	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
1,4-Dichlorobenzene	<0.20		0.20	0.019	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.029	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233155-1

Client Sample ID: 2233V3-1-B137
Date Collected: 05/01/23 11:30
Date Received: 05/02/23 13:40

Lab Sample ID: 500-233155-16
Matrix: Solid
Percent Solids: 81.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.015	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
2,4,6-Trichlorophenol	<0.40		0.40	0.014	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
2,4-Dichlorophenol	<0.40		0.40	0.014	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
2,4-Dimethylphenol	<0.40		0.40	0.089	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
2,4-Dinitrophenol	<0.81		0.81	0.23	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
2,4-Dinitrotoluene	<0.20		0.20	0.023	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
2,6-Dinitrotoluene	<0.20		0.20	0.014	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
2-Chloronaphthalene	<0.20		0.20	0.015	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
2-Chlorophenol	<0.20		0.20	0.013	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
2-Methylnaphthalene	<0.081		0.081	0.0080	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
2-Methylphenol	<0.20		0.20	0.021	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
2-Nitroaniline	<0.20		0.20	0.021	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
2-Nitrophenol	<0.40		0.40	0.027	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
3 & 4 Methylphenol	<0.20		0.20	0.029	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.033	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
3-Nitroaniline	<0.40		0.40	0.018	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.23	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.027	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
4-Chloro-3-methylphenol	<0.40		0.40	0.016	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
4-Chloroaniline	<0.81		0.81	0.42	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
4-Nitroaniline	<0.40		0.40	0.030	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
4-Nitrophenol	<0.81		0.81	0.15	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Acenaphthene	<0.040		0.040	0.0081	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Acenaphthylene	**0.019**	**J**	0.040	0.0068	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Anthracene	**0.014**	**J**	0.040	0.0082	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Benzo[a]anthracene	**0.065**		0.040	0.0085	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Benzo[a]pyrene	**0.059**		0.040	0.039	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Benzo[b]fluoranthene	**0.061**		0.040	0.038	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Benzo[g,h,i]perylene	**0.035**	**J**	0.040	0.0087	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Benzo[k]fluoranthene	**0.022**	**J**	0.040	0.015	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.015	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.018	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.16	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Butyl benzyl phthalate	<0.20		0.20	0.020	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Carbazole	<0.20		0.20	0.016	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Chrysene	**0.064**		0.040	0.011	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Dibenz(a,h)anthracene	<0.040		0.040	0.040	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Dibenzofuran	<0.20		0.20	0.014	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Diethyl phthalate	<0.20		0.20	0.018	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Dimethyl phthalate	<0.20		0.20	0.0087	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Di-n-butyl phthalate	<0.20		0.20	0.013	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Di-n-octyl phthalate	<0.40		0.40	0.28	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Fluoranthene	**0.071**		0.040	0.0093	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Fluorene	<0.040		0.040	0.012	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Hexachlorobenzene	<0.081		0.081	0.0077	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Hexachlorobutadiene	<0.20		0.20	0.023	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Hexachlorocyclopentadiene	<0.81		0.81	0.42	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Hexachloroethane	<0.20		0.20	0.020	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233155-1

Client Sample ID: 2233V3-1-B137
Date Collected: 05/01/23 11:30
Date Received: 05/02/23 13:40

Lab Sample ID: 500-233155-16
Matrix: Solid
Percent Solids: 81.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.039	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Isophorone	<0.20		0.20	0.021	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Naphthalene	<0.040		0.040	0.0072	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Nitrobenzene	<0.040		0.040	0.013	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.0079	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
N-Nitrosodiphenylamine	<0.20		0.20	0.024	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Pentachlorophenol	<0.81		0.81	0.10	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Phenanthrene	**0.016**	**J**	0.040	0.0087	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Phenol	<0.20		0.20	0.017	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1
Pyrene	**0.072**		0.040	0.011	mg/Kg	☼	05/11/23 07:45	05/13/23 00:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*72*		*31 - 166*	*05/11/23 07:45*	*05/13/23 00:11*	*1*
Phenol-d5	*74*		*30 - 153*	*05/11/23 07:45*	*05/13/23 00:11*	*1*
Nitrobenzene-d5 (Surr)	*62*		*37 - 147*	*05/11/23 07:45*	*05/13/23 00:11*	*1*
2-Fluorobiphenyl	*77*		*43 - 145*	*05/11/23 07:45*	*05/13/23 00:11*	*1*
2,4,6-Tribromophenol	*75*		*31 - 143*	*05/11/23 07:45*	*05/13/23 00:11*	*1*
Terphenyl-d14 (Surr)	*88*		*42 - 157*	*05/11/23 07:45*	*05/13/23 00:11*	*1*

Method: SW846 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.53**	**J**	1.2	0.23	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Arsenic	**9.5**		0.59	0.20	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Barium	**86**		0.59	0.067	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Beryllium	**0.88**		0.24	0.055	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Boron	**5.9**		3.0	0.28	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Cadmium	<0.12		0.12	0.021	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Calcium	**15000**	**B**	12	2.0	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Chromium	**16**		0.59	0.29	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Cobalt	**11**		0.30	0.077	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Copper	**23**		0.59	0.17	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Iron	**21000**		12	6.1	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Lead	**20**		0.30	0.14	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Magnesium	**11000**		5.9	2.9	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Manganese	**480**		0.59	0.086	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Nickel	**27**		0.59	0.17	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Potassium	**1400**		30	10	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Selenium	<0.59		0.59	0.35	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Silver	**0.42**		0.30	0.076	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Sodium	**1700**		59	8.7	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Vanadium	**28**		0.30	0.070	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1
Zinc	**91**		1.2	0.52	mg/Kg	☼	05/03/23 10:48	05/16/23 00:36	1

Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		05/05/23 17:00	05/15/23 21:28	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/05/23 17:00	05/15/23 21:28	1
Chromium	<0.025		0.025	0.010	mg/L		05/05/23 17:00	05/15/23 21:28	1
Iron	**0.79**		0.40	0.20	mg/L		05/05/23 17:00	05/15/23 21:28	1

Client Sample ID: 2233V3-1-B137 **Lab Sample ID: 500-233155-16**
Date Collected: 05/01/23 11:30 **Matrix: Solid**
Date Received: 05/02/23 13:40 **Percent Solids: 81.4**

Method: SW846 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.013		0.0075	0.0075	mg/L		05/05/23 17:00	05/15/23 21:28	1
Manganese	6.0		0.025	0.010	mg/L		05/05/23 17:00	05/15/23 21:28	1
Nickel	0.034		0.025	0.010	mg/L		05/05/23 17:00	05/15/23 21:28	1

Method: SW846 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.075		0.050	0.010	mg/L		05/05/23 17:01	05/16/23 02:03	1
Barium	1.0		0.50	0.050	mg/L		05/05/23 17:01	05/16/23 02:03	1
Beryllium	0.0088		0.0040	0.0040	mg/L		05/05/23 17:01	05/16/23 02:03	1
Boron	0.11		0.10	0.050	mg/L		05/05/23 17:01	05/16/23 02:03	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/05/23 17:01	05/16/23 02:03	1
Calcium	34		2.5	0.50	mg/L		05/05/23 17:01	05/16/23 02:03	1
Chromium	0.17		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:03	1
Cobalt	0.072		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:03	1
Iron	200		0.40	0.20	mg/L		05/05/23 17:01	05/16/23 02:03	1
Lead	0.28		0.0075	0.0075	mg/L		05/05/23 17:01	05/16/23 02:03	1
Manganese	1.4		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:03	1
Nickel	0.17		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:03	1
Potassium	16		2.5	0.50	mg/L		05/05/23 17:01	05/16/23 02:03	1
Selenium	<0.050		0.050	0.020	mg/L		05/05/23 17:01	05/16/23 02:03	1
Silver	<0.025		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:03	1
Zinc	0.84		0.50	0.020	mg/L		05/05/23 17:01	05/16/23 02:03	1

Method: SW846 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		05/05/23 17:00	05/11/23 15:34	1

Method: SW846 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/05/23 17:01	05/08/23 14:33	1
Thallium	0.0026		0.0020	0.0020	mg/L		05/05/23 17:01	05/08/23 14:33	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/15/23 11:40	05/16/23 11:35	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.065		0.019	0.010	mg/Kg	☼	05/11/23 16:00	05/12/23 10:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	0.16	J	0.29	0.14	mg/Kg	☼	05/05/23 08:10	05/05/23 11:42	1
pH (SW846 9045D)	8.1		0.2	0.2	SU			05/04/23 19:18	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233155-1

Client Sample ID: 2233V3-1-B138

Date Collected: 05/01/23 11:40
Date Received: 05/02/23 13:40

Lab Sample ID: 500-233155-17

Matrix: Solid
Percent Solids: 85.3

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Acetone	<0.017		0.017	0.0074	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	05/02/23 17:48	05/04/23 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 134*	*05/02/23 17:48*	*05/04/23 17:19*	*1*
4-Bromofluorobenzene (Surr)	*95*		*75 - 131*	*05/02/23 17:48*	*05/04/23 17:19*	*1*
Dibromofluoromethane	*100*		*75 - 126*	*05/02/23 17:48*	*05/04/23 17:19*	*1*
Toluene-d8 (Surr)	*91*		*75 - 124*	*05/02/23 17:48*	*05/04/23 17:19*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.026	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
1,2-Dichlorobenzene	<0.19		0.19	0.015	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
1,3-Dichlorobenzene	<0.19		0.19	0.017	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
1,4-Dichlorobenzene	<0.19		0.19	0.018	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.027	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233155-1

Client Sample ID: 2233V3-1-B138
Date Collected: 05/01/23 11:40
Date Received: 05/02/23 13:40

Lab Sample ID: 500-233155-17
Matrix: Solid
Percent Solids: 85.3

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.37		0.37	0.014	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
2,4,6-Trichlorophenol	<0.37		0.37	0.013	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
2,4-Dichlorophenol	<0.37		0.37	0.013	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
2,4-Dimethylphenol	<0.37		0.37	0.083	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
2,4-Dinitrophenol	<0.75		0.75	0.21	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
2,4-Dinitrotoluene	<0.19		0.19	0.021	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
2,6-Dinitrotoluene	<0.19		0.19	0.013	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
2-Chloronaphthalene	<0.19		0.19	0.014	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
2-Chlorophenol	<0.19		0.19	0.012	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
2-Methylnaphthalene	<0.075		0.075	0.0074	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
2-Methylphenol	<0.19		0.19	0.020	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
2-Nitroaniline	<0.19		0.19	0.020	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
2-Nitrophenol	<0.37		0.37	0.025	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
3 & 4 Methylphenol	<0.19		0.19	0.027	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.030	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
3-Nitroaniline	<0.37		0.37	0.017	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.21	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.025	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
4-Chloro-3-methylphenol	<0.37		0.37	0.014	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
4-Chloroaniline	<0.75		0.75	0.39	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
4-Nitroaniline	<0.37		0.37	0.027	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
4-Nitrophenol	<0.75		0.75	0.14	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Acenaphthene	<0.037		0.037	0.0075	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Acenaphthylene	<0.037		0.037	0.0063	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Anthracene	<0.037		0.037	0.0076	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Benzo[a]anthracene	**0.014**	**J**	0.037	0.0079	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Benzo[a]pyrene	<0.037		0.037	0.036	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Benzo[b]fluoranthene	<0.037		0.037	0.035	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Benzo[g,h,i]perylene	**0.014**	**J**	0.037	0.0080	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Benzo[k]fluoranthene	<0.037		0.037	0.014	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.014	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.017	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.15	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Butyl benzyl phthalate	<0.19		0.19	0.018	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Carbazole	<0.19		0.19	0.015	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Chrysene	**0.016**	**J**	0.037	0.0098	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Dibenz(a,h)anthracene	<0.037		0.037	0.037	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Dibenzofuran	<0.19		0.19	0.013	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Diethyl phthalate	<0.19		0.19	0.017	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Dimethyl phthalate	<0.19		0.19	0.0081	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Di-n-butyl phthalate	<0.19		0.19	0.012	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Di-n-octyl phthalate	<0.37		0.37	0.26	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Fluoranthene	**0.015**	**J**	0.037	0.0086	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Fluorene	<0.037		0.037	0.011	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Hexachlorobenzene	<0.075		0.075	0.0071	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Hexachlorobutadiene	<0.19		0.19	0.021	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Hexachlorocyclopentadiene	<0.75		0.75	0.39	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Hexachloroethane	<0.19		0.19	0.019	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1

Client Sample ID: 2233V3-1-B138

Date Collected: 05/01/23 11:40
Date Received: 05/02/23 13:40

Lab Sample ID: 500-233155-17

Matrix: Solid
Percent Solids: 85.3

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.036	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Isophorone	<0.19		0.19	0.019	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Naphthalene	<0.037		0.037	0.0067	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Nitrobenzene	<0.037		0.037	0.012	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.0073	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
N-Nitrosodiphenylamine	<0.19		0.19	0.022	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Pentachlorophenol	<0.75		0.75	0.093	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Phenanthrene	<0.037		0.037	0.0081	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Phenol	<0.19		0.19	0.016	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1
Pyrene	**0.015**	**J**	0.037	0.010	mg/Kg	☼	05/11/23 07:45	05/12/23 22:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*52*		*31 - 166*	*05/11/23 07:45*	*05/12/23 22:36*	*1*
Phenol-d5	*55*		*30 - 153*	*05/11/23 07:45*	*05/12/23 22:36*	*1*
Nitrobenzene-d5 (Surr)	*54*		*37 - 147*	*05/11/23 07:45*	*05/12/23 22:36*	*1*
2-Fluorobiphenyl	*60*		*43 - 145*	*05/11/23 07:45*	*05/12/23 22:36*	*1*
2,4,6-Tribromophenol	*59*		*31 - 143*	*05/11/23 07:45*	*05/12/23 22:36*	*1*
Terphenyl-d14 (Surr)	*76*		*42 - 157*	*05/11/23 07:45*	*05/12/23 22:36*	*1*

Method: SW846 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.60**	**J**	1.1	0.22	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Arsenic	**11**		0.56	0.19	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Barium	**44**		0.56	0.064	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Beryllium	**0.75**		0.23	0.053	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Boron	**12**		2.8	0.26	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Cadmium	**0.044**	**J**	0.11	0.020	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Calcium	**59000**	**B**	56	9.6	mg/Kg	☼	05/03/23 10:48	05/16/23 22:31	5
Chromium	**15**		0.56	0.28	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Cobalt	**11**		0.28	0.074	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Copper	**33**		0.56	0.16	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Iron	**20000**		11	5.9	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Lead	**21**		0.28	0.13	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Magnesium	**24000**		5.6	2.8	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Manganese	**370**		0.56	0.082	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Nickel	**33**		0.56	0.16	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Potassium	**2100**		28	10	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Silver	**0.26**	**J**	0.28	0.073	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Sodium	**1100**		56	8.4	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Vanadium	**19**		0.28	0.067	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1
Zinc	**85**		1.1	0.50	mg/Kg	☼	05/03/23 10:48	05/16/23 00:40	1

Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		05/05/23 17:00	05/15/23 21:58	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/05/23 17:00	05/15/23 21:58	1
Chromium	<0.025		0.025	0.010	mg/L		05/05/23 17:00	05/15/23 21:58	1
Iron	<0.40		0.40	0.20	mg/L		05/05/23 17:00	05/15/23 21:58	1

Client Sample ID: 2233V3-1-B138

Date Collected: 05/01/23 11:40
Date Received: 05/02/23 13:40

Lab Sample ID: 500-233155-17

Matrix: Solid
Percent Solids: 85.3

Method: SW846 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		05/05/23 17:00	05/15/23 21:58	1
Manganese	**3.6**		0.025	0.010	mg/L		05/05/23 17:00	05/15/23 21:58	1
Nickel	**0.030**		0.025	0.010	mg/L		05/05/23 17:00	05/15/23 21:58	1

Method: SW846 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.13**		0.050	0.010	mg/L		05/05/23 17:01	05/16/23 02:06	1
Barium	**0.71**		0.50	0.050	mg/L		05/05/23 17:01	05/16/23 02:06	1
Beryllium	**0.0096**		0.0040	0.0040	mg/L		05/05/23 17:01	05/16/23 02:06	1
Boron	**0.21**		0.10	0.050	mg/L		05/05/23 17:01	05/16/23 02:06	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/05/23 17:01	05/16/23 02:06	1
Calcium	**57**		2.5	0.50	mg/L		05/05/23 17:01	05/16/23 02:06	1
Chromium	**0.19**		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:06	1
Cobalt	**0.078**		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:06	1
Iron	**240**		0.40	0.20	mg/L		05/05/23 17:01	05/16/23 02:06	1
Lead	**0.15**		0.0075	0.0075	mg/L		05/05/23 17:01	05/16/23 02:06	1
Manganese	**0.96**		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:06	1
Nickel	**0.25**		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:06	1
Potassium	**35**		2.5	0.50	mg/L		05/05/23 17:01	05/16/23 02:06	1
Selenium	<0.050		0.050	0.020	mg/L		05/05/23 17:01	05/16/23 02:06	1
Silver	<0.025		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:06	1
Zinc	**0.92**		0.50	0.020	mg/L		05/05/23 17:01	05/16/23 02:06	1

Method: SW846 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		05/05/23 17:00	05/11/23 15:53	1

Method: SW846 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/05/23 17:01	05/08/23 14:35	1
Thallium	**0.0064**		0.0020	0.0020	mg/L		05/05/23 17:01	05/08/23 14:35	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/15/23 11:40	05/16/23 11:37	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.030**		0.018	0.0093	mg/Kg	☼	05/11/23 16:00	05/12/23 10:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.28		0.28	0.14	mg/Kg	☼	05/05/23 08:11	05/05/23 11:43	1
pH (SW846 9045D)	**9.0**		0.2	0.2	SU			05/05/23 16:22	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233155-1

Client Sample ID: 2233V3-1-B138 Dup

Date Collected: 05/01/23 11:50
Date Received: 05/02/23 13:40

Lab Sample ID: 500-233155-18

Matrix: Solid
Percent Solids: 84.7

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00061	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00081	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
1,1-Dichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
1,1-Dichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
1,2-Dichloroethane	<0.0047		0.0047	0.0015	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
1,2-Dichloropropane	<0.0019		0.0019	0.00049	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00067	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
2-Butanone (MEK)	<0.0047		0.0047	0.0021	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.0014	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Acetone	<0.019		0.019	0.0083	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Benzene	<0.0019		0.0019	0.00048	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Bromoform	<0.0019		0.0019	0.00055	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Bromomethane	<0.0047		0.0047	0.0018	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Carbon disulfide	<0.0047		0.0047	0.00099	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Carbon tetrachloride	<0.0019		0.0019	0.00055	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Chlorobenzene	<0.0019		0.0019	0.00070	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Chloroethane	<0.0047		0.0047	0.0014	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Chloroform	<0.0019		0.0019	0.00066	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Chloromethane	<0.0047		0.0047	0.0019	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00053	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00057	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Dibromochloromethane	<0.0019		0.0019	0.00062	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Ethylbenzene	<0.0019		0.0019	0.00091	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00056	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Methylene Chloride	<0.0047		0.0047	0.0019	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Styrene	<0.0019		0.0019	0.00057	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Tetrachloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Toluene	**0.00070**	**J**	0.0019	0.00048	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00084	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00067	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Trichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Vinyl chloride	<0.0019		0.0019	0.00084	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1
Xylenes, Total	<0.0038		0.0038	0.00061	mg/Kg	☼	05/02/23 17:48	05/04/23 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 134*	*05/02/23 17:48*	*05/04/23 17:44*	*1*
4-Bromofluorobenzene (Surr)	*102*		*75 - 131*	*05/02/23 17:48*	*05/04/23 17:44*	*1*
Dibromofluoromethane	*99*		*75 - 126*	*05/02/23 17:48*	*05/04/23 17:44*	*1*
Toluene-d8 (Surr)	*92*		*75 - 124*	*05/02/23 17:48*	*05/04/23 17:44*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.028	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
1,2-Dichlorobenzene	<0.20		0.20	0.016	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
1,3-Dichlorobenzene	<0.20		0.20	0.018	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
1,4-Dichlorobenzene	<0.20		0.20	0.018	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.028	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1

Client Sample ID: 2233V3-1-B138 Dup
Date Collected: 05/01/23 11:50
Date Received: 05/02/23 13:40

Lab Sample ID: 500-233155-18
Matrix: Solid
Percent Solids: 84.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.015	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
2,4,6-Trichlorophenol	<0.39		0.39	0.013	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
2,4-Dichlorophenol	<0.39		0.39	0.014	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
2,4-Dimethylphenol	<0.39		0.39	0.088	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
2,4-Dinitrophenol	<0.79		0.79	0.23	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
2,4-Dinitrotoluene	<0.20		0.20	0.022	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
2,6-Dinitrotoluene	<0.20		0.20	0.013	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
2-Chloronaphthalene	<0.20		0.20	0.015	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
2-Chlorophenol	<0.20		0.20	0.013	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
2-Methylnaphthalene	<0.079		0.079	0.0078	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
2-Methylphenol	<0.20		0.20	0.021	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
2-Nitroaniline	<0.20		0.20	0.021	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
2-Nitrophenol	<0.39		0.39	0.027	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
3 & 4 Methylphenol	<0.20		0.20	0.029	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.032	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
3-Nitroaniline	<0.39		0.39	0.018	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.22	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.027	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
4-Chloro-3-methylphenol	<0.39		0.39	0.015	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
4-Chloroaniline	<0.79		0.79	0.41	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
4-Nitroaniline	<0.39		0.39	0.029	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
4-Nitrophenol	<0.79		0.79	0.14	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Acenaphthene	**0.0080**	**J**	0.039	0.0080	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Acenaphthylene	**0.0085**	**J**	0.039	0.0066	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Anthracene	**0.022**	**J**	0.039	0.0080	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Benzo[a]anthracene	**0.094**		0.039	0.0083	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Benzo[a]pyrene	**0.12**		0.039	0.038	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Benzo[b]fluoranthene	**0.16**		0.039	0.037	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Benzo[g,h,i]perylene	**0.10**		0.039	0.0085	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Benzo[k]fluoranthene	**0.056**		0.039	0.015	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.015	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.018	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.15	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Butyl benzyl phthalate	**0.032**	**J**	0.20	0.019	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Carbazole	<0.20		0.20	0.015	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Chrysene	**0.13**		0.039	0.010	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Dibenz(a,h)anthracene	<0.039		0.039	0.039	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Dibenzofuran	<0.20		0.20	0.014	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Diethyl phthalate	<0.20		0.20	0.018	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Dimethyl phthalate	<0.20		0.20	0.0085	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Di-n-butyl phthalate	<0.20		0.20	0.012	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Di-n-octyl phthalate	<0.39		0.39	0.27	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Fluoranthene	**0.21**		0.039	0.0091	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Fluorene	<0.039		0.039	0.012	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Hexachlorobenzene	<0.079		0.079	0.0075	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Hexachlorobutadiene	<0.20		0.20	0.022	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Hexachlorocyclopentadiene	<0.79		0.79	0.41	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Hexachloroethane	<0.20		0.20	0.020	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233155-1

Client Sample ID: 2233V3-1-B138 Dup

Date Collected: 05/01/23 11:50
Date Received: 05/02/23 13:40

Lab Sample ID: 500-233155-18

Matrix: Solid
Percent Solids: 84.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	**0.099**		0.039	0.038	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Isophorone	<0.20		0.20	0.020	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Naphthalene	<0.039		0.039	0.0071	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Nitrobenzene	<0.039		0.039	0.012	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.0077	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
N-Nitrosodiphenylamine	<0.20		0.20	0.023	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Pentachlorophenol	<0.79		0.79	0.098	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Phenanthrene	**0.11**		0.039	0.0085	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Phenol	<0.20		0.20	0.017	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1
Pyrene	**0.19**		0.039	0.011	mg/Kg	☼	05/11/23 07:45	05/12/23 22:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*62*		*31 - 166*	*05/11/23 07:45*	*05/12/23 22:59*	*1*
Phenol-d5	*66*		*30 - 153*	*05/11/23 07:45*	*05/12/23 22:59*	*1*
Nitrobenzene-d5 (Surr)	*67*		*37 - 147*	*05/11/23 07:45*	*05/12/23 22:59*	*1*
2-Fluorobiphenyl	*76*		*43 - 145*	*05/11/23 07:45*	*05/12/23 22:59*	*1*
2,4,6-Tribromophenol	*67*		*31 - 143*	*05/11/23 07:45*	*05/12/23 22:59*	*1*
Terphenyl-d14 (Surr)	*87*		*42 - 157*	*05/11/23 07:45*	*05/12/23 22:59*	*1*

Method: SW846 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.44**	**J**	1.1	0.22	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Arsenic	**8.0**		0.56	0.19	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Barium	**58**		0.56	0.064	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Beryllium	**0.76**		0.22	0.052	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Boron	**12**		2.8	0.26	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Cadmium	**0.056**	**J**	0.11	0.020	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Calcium	**65000**	**B**	56	9.4	mg/Kg	☼	05/03/23 10:48	05/16/23 22:34	5
Chromium	**17**		0.56	0.28	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Cobalt	**8.4**		0.28	0.073	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Copper	**21**		0.56	0.16	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Iron	**19000**		11	5.8	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Lead	**33**		0.28	0.13	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Magnesium	**26000**		5.6	2.8	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Manganese	**290**		0.56	0.081	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Nickel	**22**		0.56	0.16	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Potassium	**2200**		28	9.9	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Silver	**0.31**		0.28	0.072	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Sodium	**1600**		56	8.2	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Vanadium	**21**		0.28	0.066	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1
Zinc	**89**		1.1	0.49	mg/Kg	☼	05/03/23 10:48	05/16/23 00:43	1

Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		05/05/23 17:00	05/15/23 22:01	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/05/23 17:00	05/15/23 22:01	1
Chromium	<0.025		0.025	0.010	mg/L		05/05/23 17:00	05/15/23 22:01	1
Iron	<0.40		0.40	0.20	mg/L		05/05/23 17:00	05/15/23 22:01	1

Client Sample ID: 2233V3-1-B138 Dup

Date Collected: 05/01/23 11:50
Date Received: 05/02/23 13:40

Lab Sample ID: 500-233155-18

Matrix: Solid
Percent Solids: 84.7

Method: SW846 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		05/05/23 17:00	05/15/23 22:01	1
Manganese	**3.6**		0.025	0.010	mg/L		05/05/23 17:00	05/15/23 22:01	1
Nickel	**0.026**		0.025	0.010	mg/L		05/05/23 17:00	05/15/23 22:01	1

Method: SW846 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.12**		0.050	0.010	mg/L		05/05/23 17:01	05/16/23 02:10	1
Barium	**0.72**		0.50	0.050	mg/L		05/05/23 17:01	05/16/23 02:10	1
Beryllium	**0.0094**		0.0040	0.0040	mg/L		05/05/23 17:01	05/16/23 02:10	1
Boron	**0.22**		0.10	0.050	mg/L		05/05/23 17:01	05/16/23 02:10	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/05/23 17:01	05/16/23 02:10	1
Calcium	**55**		2.5	0.50	mg/L		05/05/23 17:01	05/16/23 02:10	1
Chromium	**0.19**		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:10	1
Cobalt	**0.078**		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:10	1
Iron	**230**		0.40	0.20	mg/L		05/05/23 17:01	05/16/23 02:10	1
Lead	**0.15**		0.0075	0.0075	mg/L		05/05/23 17:01	05/16/23 02:10	1
Manganese	**0.96**		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:10	1
Nickel	**0.25**		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:10	1
Potassium	**35**		2.5	0.50	mg/L		05/05/23 17:01	05/16/23 02:10	1
Selenium	<0.050		0.050	0.020	mg/L		05/05/23 17:01	05/16/23 02:10	1
Silver	<0.025		0.025	0.010	mg/L		05/05/23 17:01	05/16/23 02:10	1
Zinc	**0.92**		0.50	0.020	mg/L		05/05/23 17:01	05/16/23 02:10	1

Method: SW846 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		05/05/23 17:00	05/11/23 15:55	1

Method: SW846 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/05/23 17:01	05/08/23 14:37	1
Thallium	**0.0064**		0.0020	0.0020	mg/L		05/05/23 17:01	05/08/23 14:37	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/15/23 11:40	05/16/23 11:39	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.022**		0.019	0.0098	mg/Kg	☼	05/11/23 16:00	05/12/23 10:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**0.15**	**J**	0.28	0.14	mg/Kg	☼	05/05/23 08:12	05/05/23 11:45	1
pH (SW846 9045D)	**9.0**		0.2	0.2	SU			05/05/23 16:27	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233155-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-23 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

CHAIN OF CUSTODY RECORD

ANDREWS ENGINEERING

Client Contact	Laboratory	
Andrews Engineering, Inc 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact Colleen Grey email cgrey@andrews-eng com	Lab **Eurofins - Chicago** Address **2417 Bond Street** **University Park, IL 60484** Phone **708-534-5200** Contact **Jodie Bracken** email Jodie Bracken@ET EurofinsUS com	Project Name AE8-010A Project No PTB/WO#:195-002/010A TAT ☒ 15 BD ☐ 10 BD ☐ 5 BD ☐ 2 BD ____ Other Sampler: J. Weisbrodt

COC No 2 of 2

Lab Job No.: 500-233155

Sample Temp:

Special Instructions:

See Table 2 for complete parameter lists and minimum reporting limits

* If Total RCRA metal (mg/kg) result exceeds the Soil Toxicity Characteristics Limit (Table 3) run TCLP for that specific RCRA metal

** If SPLP result exceeds Class I Standard run TCLP for that specific parameter

*** If total cyanide exceeds MAC run ASTM D3987 (Neutral Leach) cyanide

Matrix Key:

W Water
S Soil
SL Sludge
S Sediment
L Leachate
DW Drinking Water
OL Oil
O Other

Lab ID	Sample ID	Sample Date	Sample Time	Matrix	VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization				Comments
12	2233V3-1-B135-1	5/1/23	1050	S	X	X					X	X	X	X	X					
13	2233V3-1-B135-2	↓	1100	↓	↓	↓					↓	↓	↓	↓	↓					
14	2233V3-1-B135-3		1110																	-4 Not Sampled
15	2233V3-1-B136		1120																	
16	2233V3-1-B137		1130	↓	↓	↓					↓	↓	↓	↓	↓					
17	2233V3-1-B138		1140																	
18	2233V3-1-B138 DUP		1150																	
19	2233V3-1-B139	↓	1200	↓	↓	↓					↓	↓	↓	↓	↓					
20	Trip Blank #7			S	X															

Relinquished by Bond Weisbrodt	Date/Time	Received by EFIA 5/2	Date/Time 1125
Relinquished by EFIA 5/2	Date/Time 1340	Received by	Date/Time 5/2/23 1340
Relinquished by	Date/Time	Received by	Date/Time

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Colleen Grey
Andrews Engineering Inc.
3300 Ginger Creek Drive
Springfield, Illinois 62711

Generated 5/26/2023 3:54:48 PM Revision 1

JOB DESCRIPTION

IDOT - AE8-010

JOB NUMBER

500-232642-1

Eurofins Chicago
2417 Bond Street
University Park IL 60484

See page two for job notes and contact information.

myEOL

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

Authorization

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Revision 1

Authorized for release by
Jodie Bracken, Project Management Assistant II
Jodie.Bracken@et.eurofinsus.com
(708)534-5200

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-232642-1

Client Sample ID: 2233V3-1-B182
Date Collected: 04/20/23 09:20
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-3
Matrix: Solid
Percent Solids: 83.0

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00071	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Acetone	<0.020	*+	0.020	0.0088	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Bromoform	<0.0020		0.0020	0.00059	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Bromomethane	<0.0050	*-	0.0050	0.0019	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Chloroethane	<0.0050	*-	0.0050	0.0015	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Chloroform	<0.0020		0.0020	0.00070	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00061	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Dibromochloromethane	<0.0020		0.0020	0.00066	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Styrene	<0.0020		0.0020	0.00061	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Toluene	**0.0015**	**J**	0.0020	0.00051	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00071	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg	☼	04/21/23 17:15	04/25/23 11:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*70 - 134*	*04/21/23 17:15*	*04/25/23 11:56*	*1*
4-Bromofluorobenzene (Surr)	*103*		*75 - 131*	*04/21/23 17:15*	*04/25/23 11:56*	*1*
Dibromofluoromethane	*114*		*75 - 126*	*04/21/23 17:15*	*04/25/23 11:56*	*1*
Toluene-d8 (Surr)	*113*		*75 - 124*	*04/21/23 17:15*	*04/25/23 11:56*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-232642-1

Client Sample ID: 2233V3-1-B182
Date Collected: 04/20/23 09:20
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-3
Matrix: Solid
Percent Solids: 83.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
4-Bromophenyl phenyl ether	<0.20	*-	0.20	0.052	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
4-Chloro-3-methylphenol	<0.39	*-	0.39	0.13	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Di-n-octyl phthalate	<0.20	*-	0.20	0.064	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-232642-1

Client Sample ID: 2233V3-1-B182
Date Collected: 04/20/23 09:20
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-3
Matrix: Solid
Percent Solids: 83.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Phenanthrene	<0.039		0.039	0.0055	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	04/30/23 10:36	05/02/23 16:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*55*		*31 - 143*	*04/30/23 10:36*	*05/02/23 16:34*	*1*
2-Fluorobiphenyl	*68*		*43 - 145*	*04/30/23 10:36*	*05/02/23 16:34*	*1*
2-Fluorophenol	*56*		*31 - 166*	*04/30/23 10:36*	*05/02/23 16:34*	*1*
Nitrobenzene-d5 (Surr)	*62*		*37 - 147*	*04/30/23 10:36*	*05/02/23 16:34*	*1*
Phenol-d5	*59*		*30 - 153*	*04/30/23 10:36*	*05/02/23 16:34*	*1*
Terphenyl-d14 (Surr)	*85*		*42 - 157*	*04/30/23 10:36*	*05/02/23 16:34*	*1*

Method: SW846 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.41**	**J**	1.2	0.23	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Arsenic	**8.7**		0.58	0.20	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Barium	**77**	**B**	0.58	0.066	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Beryllium	**0.95**	**B**	0.23	0.054	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Boron	**8.3**	**B**	2.9	0.27	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Cadmium	**0.11**	**J B**	0.12	0.021	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Calcium	**48000**		58	9.9	mg/Kg	☼	04/26/23 10:01	05/03/23 00:03	5
Chromium	**17**		0.58	0.29	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Cobalt	**8.1**		0.29	0.076	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Copper	**24**		0.58	0.16	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Iron	**24000**		12	6.1	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Lead	**13**		0.29	0.13	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Magnesium	**27000**		5.8	2.9	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Manganese	**280**	**B**	0.58	0.085	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Nickel	**20**		0.58	0.17	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Potassium	**2000**		29	10	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Selenium	<0.58		0.58	0.34	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Silver	**0.38**		0.29	0.075	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Sodium	**110**		58	8.6	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Thallium	**0.46**	**J**	0.58	0.29	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Vanadium	**23**	**B**	0.29	0.069	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1
Zinc	**74**		1.2	0.51	mg/Kg	☼	04/26/23 10:01	05/02/23 01:51	1

Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.35**	**J**	0.40	0.20	mg/L		04/25/23 17:08	04/28/23 23:14	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/03/23 17:45	05/05/23 13:23	1
Manganese	**0.66**		0.025	0.010	mg/L		04/25/23 17:08	04/28/23 23:14	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-232642-1

Client Sample ID: 2233V3-1-B182
Date Collected: 04/20/23 09:20
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-3
Matrix: Solid
Percent Solids: 83.0

Method: SW846 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.032**	**J**	0.050	0.010	mg/L		04/25/23 17:10	04/28/23 01:34	1
Barium	**0.29**	**J**	0.50	0.050	mg/L		04/25/23 17:10	04/28/23 01:34	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/25/23 17:10	04/28/23 01:34	1
Boron	**0.088**	**J**	0.10	0.050	mg/L		04/25/23 17:10	04/28/23 01:34	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/25/23 17:10	04/28/23 01:34	1
Calcium	**19**		2.5	0.50	mg/L		04/25/23 17:10	04/28/23 01:34	1
Chromium	**0.063**		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 01:34	1
Cobalt	**0.013**	**J**	0.025	0.010	mg/L		04/25/23 17:10	04/28/23 01:34	1
Iron	**67**		0.40	0.20	mg/L		04/25/23 17:10	04/28/23 01:34	1
Lead	**0.033**		0.0075	0.0075	mg/L		05/03/23 17:47	05/04/23 16:23	1
Manganese	**0.20**		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 01:34	1
Nickel	**0.053**		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 01:34	1
Potassium	**13**		2.5	0.50	mg/L		04/25/23 17:10	04/28/23 01:34	1
Selenium	<0.050		0.050	0.020	mg/L		04/25/23 17:10	04/28/23 01:34	1
Silver	<0.025		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 01:34	1
Zinc	**0.19**	**J**	0.50	0.020	mg/L		04/25/23 17:10	04/28/23 01:34	1

Method: SW846 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/25/23 17:10	04/26/23 15:53	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/25/23 17:10	04/26/23 15:53	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/01/23 12:30	05/02/23 11:03	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.017**	**J**	0.019	0.0099	mg/Kg	☼	05/03/23 17:05	05/04/23 09:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.29		0.29	0.14	mg/Kg	☼	04/27/23 08:11	04/27/23 10:04	1
pH (SW846 9045D)	**8.0**		0.2	0.2	SU			04/24/23 20:55	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-232642-1

Client Sample ID: 2233V3-1-B181

Date Collected: 04/20/23 09:30
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-4

Matrix: Solid
Percent Solids: 86.9

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00059	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00079	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
1,1-Dichloroethane	<0.0019		0.0019	0.00063	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
1,1-Dichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
1,2-Dichloropropane	<0.0019		0.0019	0.00048	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00065	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
2-Butanone (MEK)	<0.0046		0.0046	0.0021	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Acetone	<0.019	*+	0.019	0.0081	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Benzene	<0.0019		0.0019	0.00047	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Bromodichloromethane	<0.0019		0.0019	0.00038	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Bromoform	<0.0019		0.0019	0.00054	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Bromomethane	<0.0046	*-	0.0046	0.0017	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Carbon disulfide	<0.0046		0.0046	0.00096	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Carbon tetrachloride	<0.0019		0.0019	0.00054	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Chlorobenzene	<0.0019		0.0019	0.00068	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Chloroethane	<0.0046	*-	0.0046	0.0014	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Chloroform	<0.0019		0.0019	0.00064	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Chloromethane	<0.0046		0.0046	0.0019	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00052	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00056	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Dibromochloromethane	<0.0019		0.0019	0.00061	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Ethylbenzene	<0.0019		0.0019	0.00089	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00054	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Styrene	<0.0019		0.0019	0.00056	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Tetrachloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Toluene	**0.0012**	**J**	0.0019	0.00047	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00082	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00065	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Trichloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Vinyl chloride	<0.0019		0.0019	0.00082	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	04/21/23 17:15	04/25/23 12:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*70 - 134*	*04/21/23 17:15*	*04/25/23 12:21*	*1*
4-Bromofluorobenzene (Surr)	*110*		*75 - 131*	*04/21/23 17:15*	*04/25/23 12:21*	*1*
Dibromofluoromethane	*114*		*75 - 126*	*04/21/23 17:15*	*04/25/23 12:21*	*1*
Toluene-d8 (Surr)	*113*		*75 - 124*	*04/21/23 17:15*	*04/25/23 12:21*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-232642-1

Client Sample ID: 2233V3-1-B181
Date Collected: 04/20/23 09:30
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-4
Matrix: Solid
Percent Solids: 86.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
2,4-Dichlorophenol	<0.37		0.37	0.090	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
2-Methylnaphthalene	<0.076		0.076	0.0069	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
4-Bromophenyl phenyl ether	<0.19	*-	0.19	0.050	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
4-Chloro-3-methylphenol	<0.37	*-	0.37	0.13	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Benzo[a]anthracene	<0.037		0.037	0.0051	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Benzo[a]pyrene	<0.037		0.037	0.0073	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Benzo[b]fluoranthene	<0.037		0.037	0.0081	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Di-n-octyl phthalate	<0.19	*-	0.19	0.062	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Fluoranthene	<0.037		0.037	0.0070	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-232642-1

Client Sample ID: 2233V3-1-B181
Date Collected: 04/20/23 09:30
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-4
Matrix: Solid
Percent Solids: 86.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0098	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Phenanthrene	<0.037		0.037	0.0053	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Phenol	<0.19		0.19	0.084	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1
Pyrene	<0.037		0.037	0.0075	mg/Kg	☼	04/30/23 10:36	05/02/23 16:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*45*		*31 - 143*	*04/30/23 10:36*	*05/02/23 16:59*	*1*
2-Fluorobiphenyl	*77*		*43 - 145*	*04/30/23 10:36*	*05/02/23 16:59*	*1*
2-Fluorophenol	*63*		*31 - 166*	*04/30/23 10:36*	*05/02/23 16:59*	*1*
Nitrobenzene-d5 (Surr)	*70*		*37 - 147*	*04/30/23 10:36*	*05/02/23 16:59*	*1*
Phenol-d5	*64*		*30 - 153*	*04/30/23 10:36*	*05/02/23 16:59*	*1*
Terphenyl-d14 (Surr)	*81*		*42 - 157*	*04/30/23 10:36*	*05/02/23 16:59*	*1*

Method: SW846 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.48**	**J**	1.1	0.21	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Arsenic	**9.3**		0.54	0.18	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Barium	**49**	**B**	0.54	0.061	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Beryllium	**0.80**	**B**	0.21	0.050	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Boron	**9.3**	**B**	2.7	0.25	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Cadmium	**0.29**	**B**	0.11	0.019	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Calcium	**68000**		54	9.1	mg/Kg	☼	04/26/23 10:01	05/03/23 00:06	5
Chromium	**14**		0.54	0.26	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Cobalt	**12**		0.27	0.070	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Copper	**23**		0.54	0.15	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Iron	**22000**		11	5.6	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Lead	**13**		0.27	0.12	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Magnesium	**29000**		5.4	2.7	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Manganese	**440**	**B**	0.54	0.078	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Nickel	**28**		0.54	0.16	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Potassium	**2100**		27	9.5	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Selenium	<0.54		0.54	0.31	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Silver	**0.27**		0.27	0.069	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Sodium	**210**		54	7.9	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Thallium	**0.27**	**J**	0.54	0.27	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Vanadium	**18**	**B**	0.27	0.063	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1
Zinc	**69**		1.1	0.47	mg/Kg	☼	04/26/23 10:01	05/02/23 01:54	1

Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/25/23 17:08	04/29/23 00:26	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/25/23 17:08	04/29/23 00:26	1
Iron	**0.54**		0.40	0.20	mg/L		04/25/23 17:08	04/29/23 00:26	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/09/23 17:10	05/10/23 14:06	1

Client Sample ID: 2233V3-1-B181
Date Collected: 04/20/23 09:30
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-4
Matrix: Solid
Percent Solids: 86.9

Method: SW846 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	2.8		0.025	0.010	mg/L		04/25/23 17:08	04/29/23 00:26	1
Nickel	0.029		0.025	0.010	mg/L		04/25/23 17:08	04/29/23 00:26	1

Method: SW846 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.055		0.050	0.010	mg/L		04/25/23 17:10	04/28/23 01:38	1
Barium	0.37	J	0.50	0.050	mg/L		04/25/23 17:10	04/28/23 01:38	1
Beryllium	0.0044		0.0040	0.0040	mg/L		04/25/23 17:10	04/28/23 01:38	1
Boron	0.12		0.10	0.050	mg/L		04/25/23 17:10	04/28/23 01:38	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/25/23 17:10	04/28/23 01:38	1
Calcium	29		2.5	0.50	mg/L		04/25/23 17:10	04/28/23 01:38	1
Chromium	0.084		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 01:38	1
Cobalt	0.029		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 01:38	1
Iron	100		0.40	0.20	mg/L		04/25/23 17:10	04/28/23 01:38	1
Lead	0.041		0.0075	0.0075	mg/L		05/03/23 17:47	05/04/23 16:26	1
Manganese	0.36		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 01:38	1
Nickel	0.11		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 01:38	1
Potassium	21		2.5	0.50	mg/L		04/25/23 17:10	04/28/23 01:38	1
Selenium	<0.050		0.050	0.020	mg/L		04/25/23 17:10	04/28/23 01:38	1
Silver	<0.025		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 01:38	1
Zinc	0.32	J	0.50	0.020	mg/L		04/25/23 17:10	04/28/23 01:38	1

Method: SW846 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		04/25/23 17:08	04/27/23 19:27	1

Method: SW846 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/25/23 17:10	04/26/23 15:55	1
Thallium	0.0030		0.0020	0.0020	mg/L		04/25/23 17:10	04/26/23 15:55	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/01/23 12:30	05/02/23 11:05	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018		0.018	0.0094	mg/Kg	☼	05/03/23 17:05	05/04/23 09:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.26		0.26	0.13	mg/Kg	☼	04/27/23 08:12	04/27/23 10:06	1
pH (SW846 9045D)	8.7		0.2	0.2	SU			04/24/23 21:00	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-232642-1

Client Sample ID: 2233V3-1-B181 Dup

Date Collected: 04/20/23 09:40
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-5

Matrix: Solid
Percent Solids: 81.4

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00065	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00087	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
1,1-Dichloroethene	<0.0020		0.0020	0.00070	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
1,2-Dichloroethane	<0.0051		0.0051	0.0016	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00071	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
2-Butanone (MEK)	<0.0051		0.0051	0.0022	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
2-Hexanone	<0.0051		0.0051	0.0016	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
4-Methyl-2-pentanone (MIBK)	<0.0051		0.0051	0.0015	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Acetone	<0.020	*+	0.020	0.0088	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Benzene	<0.0020		0.0020	0.00052	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Bromoform	<0.0020		0.0020	0.00059	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Bromomethane	<0.0051	*-	0.0051	0.0019	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Carbon disulfide	<0.0051		0.0051	0.0011	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Carbon tetrachloride	<0.0020		0.0020	0.00059	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Chlorobenzene	<0.0020		0.0020	0.00075	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Chloroethane	<0.0051	*-	0.0051	0.0015	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Chloroform	<0.0020		0.0020	0.00070	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Chloromethane	<0.0051		0.0051	0.0020	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00057	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00061	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Dibromochloromethane	<0.0020		0.0020	0.00066	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Ethylbenzene	<0.0020		0.0020	0.00097	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Methylene Chloride	<0.0051		0.0051	0.0020	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Styrene	<0.0020		0.0020	0.00061	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Tetrachloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Toluene	**0.0011**	**J**	0.0020	0.00051	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00090	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00071	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Vinyl chloride	<0.0020		0.0020	0.00090	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1
Xylenes, Total	<0.0040		0.0040	0.00065	mg/Kg	☼	04/21/23 17:15	04/25/23 12:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*126*		*70 - 134*	*04/21/23 17:15*	*04/25/23 12:45*	*1*
4-Bromofluorobenzene (Surr)	*103*		*75 - 131*	*04/21/23 17:15*	*04/25/23 12:45*	*1*
Dibromofluoromethane	*118*		*75 - 126*	*04/21/23 17:15*	*04/25/23 12:45*	*1*
Toluene-d8 (Surr)	*112*		*75 - 124*	*04/21/23 17:15*	*04/25/23 12:45*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-232642-1

Client Sample ID: 2233V3-1-B181 Dup
Date Collected: 04/20/23 09:40
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-5
Matrix: Solid
Percent Solids: 81.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
2-Methylnaphthalene	<0.081		0.081	0.0074	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
4-Bromophenyl phenyl ether	<0.20	*-	0.20	0.053	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
4-Chloro-3-methylphenol	<0.40	*-	0.40	0.14	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Di-n-octyl phthalate	<0.20	*-	0.20	0.066	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-232642-1

Client Sample ID: 2233V3-1-B181 Dup

Date Collected: 04/20/23 09:40
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-5

Matrix: Solid
Percent Solids: 81.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Pentachlorophenol	<0.81		0.81	0.65	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Phenanthrene	<0.040		0.040	0.0056	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1
Pyrene	<0.040		0.040	0.0080	mg/Kg	☼	04/30/23 10:36	05/02/23 17:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*32*		*31 - 143*	*04/30/23 10:36*	*05/02/23 17:24*	*1*
2-Fluorobiphenyl	*63*		*43 - 145*	*04/30/23 10:36*	*05/02/23 17:24*	*1*
2-Fluorophenol	*55*		*31 - 166*	*04/30/23 10:36*	*05/02/23 17:24*	*1*
Nitrobenzene-d5 (Surr)	*59*		*37 - 147*	*04/30/23 10:36*	*05/02/23 17:24*	*1*
Phenol-d5	*57*		*30 - 153*	*04/30/23 10:36*	*05/02/23 17:24*	*1*
Terphenyl-d14 (Surr)	*64*		*42 - 157*	*04/30/23 10:36*	*05/02/23 17:24*	*1*

Method: SW846 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.50**	**J**	1.2	0.23	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Arsenic	**10**		0.58	0.20	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Barium	**110**	**B**	0.58	0.066	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Beryllium	**1.1**	**B**	0.23	0.054	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Boron	**8.7**	**B**	2.9	0.27	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Cadmium	**0.17**	**B**	0.12	0.021	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Calcium	**27000**		12	2.0	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Chromium	**21**		0.58	0.29	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Cobalt	**11**		0.29	0.076	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Copper	**28**		0.58	0.16	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Iron	**28000**		12	6.1	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Lead	**15**		0.29	0.13	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Magnesium	**20000**		5.8	2.9	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Manganese	**420**	**B**	0.58	0.084	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Nickel	**30**		0.58	0.17	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Potassium	**2300**		29	10	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Selenium	<0.58		0.58	0.34	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Silver	**0.44**		0.29	0.075	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Sodium	**250**		58	8.6	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Thallium	**0.55**	**J**	0.58	0.29	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Vanadium	**28**	**B**	0.29	0.069	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1
Zinc	**78**		1.2	0.51	mg/Kg	☼	04/26/23 10:01	05/02/23 02:05	1

Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/25/23 17:08	04/29/23 00:30	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/25/23 17:08	04/29/23 00:30	1
Iron	**0.37**	**J**	0.40	0.20	mg/L		04/25/23 17:08	04/29/23 00:30	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/09/23 17:10	05/10/23 14:16	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-232642-1

Client Sample ID: 2233V3-1-B181 Dup

Date Collected: 04/20/23 09:40
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-5

Matrix: Solid
Percent Solids: 81.4

Method: SW846 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**2.5**		0.025	0.010	mg/L		04/25/23 17:08	04/29/23 00:30	1

Method: SW846 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.054**		0.050	0.010	mg/L		04/25/23 17:10	04/28/23 01:48	1
Barium	**0.42**	**J**	0.50	0.050	mg/L		04/25/23 17:10	04/28/23 01:48	1
Beryllium	**0.0043**		0.0040	0.0040	mg/L		04/25/23 17:10	04/28/23 01:48	1
Boron	**0.10**		0.10	0.050	mg/L		04/25/23 17:10	04/28/23 01:48	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/25/23 17:10	04/28/23 01:48	1
Calcium	**20**		2.5	0.50	mg/L		04/25/23 17:10	04/28/23 01:48	1
Chromium	**0.083**		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 01:48	1
Cobalt	**0.019**	**J**	0.025	0.010	mg/L		04/25/23 17:10	04/28/23 01:48	1
Iron	**100**		0.40	0.20	mg/L		04/25/23 17:10	04/28/23 01:48	1
Lead	**0.042**		0.0075	0.0075	mg/L		05/03/23 17:47	05/04/23 16:30	1
Manganese	**0.35**		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 01:48	1
Nickel	**0.083**		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 01:48	1
Potassium	**16**		2.5	0.50	mg/L		04/25/23 17:10	04/28/23 01:48	1
Selenium	<0.050		0.050	0.020	mg/L		04/25/23 17:10	04/28/23 01:48	1
Silver	<0.025		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 01:48	1
Zinc	**0.26**	**J**	0.50	0.020	mg/L		04/25/23 17:10	04/28/23 01:48	1

Method: SW846 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		04/25/23 17:08	04/27/23 19:29	1

Method: SW846 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/25/23 17:10	04/26/23 15:57	1
Thallium	**0.0023**		0.0020	0.0020	mg/L		04/25/23 17:10	04/26/23 15:57	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/01/23 12:30	05/02/23 11:08	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.025**		0.018	0.0096	mg/Kg	☼	05/03/23 17:05	05/04/23 09:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.29		0.29	0.15	mg/Kg	☼	04/27/23 08:13	04/27/23 10:07	1
pH (SW846 9045D)	**8.2**		0.2	0.2	SU			04/24/23 21:05	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-232642-1

Client Sample ID: 2233V3-1-B142

Date Collected: 04/20/23 10:20
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-9

Matrix: Solid
Percent Solids: 78.6

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0020		0.0020	0.00069	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00065	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00088	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
1,1-Dichloroethane	<0.0020		0.0020	0.00070	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
1,1-Dichloroethene	<0.0020		0.0020	0.00070	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
1,2-Dichloroethane	<0.0051		0.0051	0.0016	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
1,2-Dichloropropane	<0.0020		0.0020	0.00053	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00072	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
2-Butanone (MEK)	<0.0051		0.0051	0.0023	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
2-Hexanone	<0.0051		0.0051	0.0016	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
4-Methyl-2-pentanone (MIBK)	<0.0051		0.0051	0.0015	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Acetone	<0.020	*+	0.020	0.0089	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Benzene	<0.0020		0.0020	0.00052	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Bromodichloromethane	<0.0020		0.0020	0.00042	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Bromoform	<0.0020		0.0020	0.00060	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Bromomethane	<0.0051	*-	0.0051	0.0019	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Carbon disulfide	<0.0051		0.0051	0.0011	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Carbon tetrachloride	<0.0020		0.0020	0.00059	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Chlorobenzene	<0.0020		0.0020	0.00075	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Chloroethane	<0.0051	*-	0.0051	0.0015	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Chloroform	<0.0020		0.0020	0.00071	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Chloromethane	<0.0051		0.0051	0.0021	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00057	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00062	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Dibromochloromethane	<0.0020		0.0020	0.00067	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Ethylbenzene	<0.0020		0.0020	0.00098	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00060	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Methylene Chloride	<0.0051		0.0051	0.0020	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Styrene	<0.0020		0.0020	0.00062	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Tetrachloroethene	<0.0020		0.0020	0.00070	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Toluene	**0.0017**	**J**	0.0020	0.00052	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00090	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00072	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Trichloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Vinyl chloride	<0.0020		0.0020	0.00090	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1
Xylenes, Total	<0.0041		0.0041	0.00065	mg/Kg	☼	04/21/23 17:15	04/25/23 14:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*70 - 134*	*04/21/23 17:15*	*04/25/23 14:23*	*1*
4-Bromofluorobenzene (Surr)	*112*		*75 - 131*	*04/21/23 17:15*	*04/25/23 14:23*	*1*
Dibromofluoromethane	*116*		*75 - 126*	*04/21/23 17:15*	*04/25/23 14:23*	*1*
Toluene-d8 (Surr)	*115*		*75 - 124*	*04/21/23 17:15*	*04/25/23 14:23*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1

Client Sample ID: 2233V3-1-B142
Date Collected: 04/20/23 10:20
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-9
Matrix: Solid
Percent Solids: 78.6

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.41		0.41	0.094	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
2,4-Dichlorophenol	<0.41		0.41	0.098	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
2,4-Dinitrophenol	<0.83		0.83	0.73	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
2,4-Dinitrotoluene	<0.21		0.21	0.066	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
2-Chloronaphthalene	<0.21		0.21	0.046	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
2-Methylnaphthalene	<0.083		0.083	0.0076	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
3 & 4 Methylphenol	<0.21		0.21	0.069	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.058	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
4-Bromophenyl phenyl ether	<0.21	*-	0.21	0.054	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
4-Chloro-3-methylphenol	<0.41	*-	0.41	0.14	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Anthracene	<0.041		0.041	0.0069	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Benzo[a]anthracene	**0.041**		0.041	0.0055	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Benzo[a]pyrene	**0.051**		0.041	0.0080	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Benzo[b]fluoranthene	**0.058**		0.041	0.0089	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Benzo[g,h,i]perylene	**0.050**		0.041	0.013	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Benzo[k]fluoranthene	**0.030**	**J**	0.041	0.012	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Chrysene	**0.040**	**J**	0.041	0.011	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0080	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Di-n-octyl phthalate	<0.21	*-	0.21	0.067	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Fluoranthene	**0.046**		0.041	0.0076	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Hexachlorobenzene	<0.083		0.083	0.0096	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Hexachloroethane	<0.21		0.21	0.063	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1

Client Sample ID: 2233V3-1-B142

Date Collected: 04/20/23 10:20
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-9

Matrix: Solid
Percent Solids: 78.6

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	**0.055**		0.041	0.011	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
N-Nitrosodiphenylamine	<0.21		0.21	0.049	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Phenanthrene	**0.019**	**J**	0.041	0.0057	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Phenol	<0.21		0.21	0.092	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1
Pyrene	**0.054**		0.041	0.0082	mg/Kg	☼	04/30/23 10:36	05/02/23 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*38*		*31 - 143*	*04/30/23 10:36*	*05/02/23 19:02*	*1*
2-Fluorobiphenyl	*59*		*43 - 145*	*04/30/23 10:36*	*05/02/23 19:02*	*1*
2-Fluorophenol	*46*		*31 - 166*	*04/30/23 10:36*	*05/02/23 19:02*	*1*
Nitrobenzene-d5 (Surr)	*50*		*37 - 147*	*04/30/23 10:36*	*05/02/23 19:02*	*1*
Phenol-d5	*50*		*30 - 153*	*04/30/23 10:36*	*05/02/23 19:02*	*1*
Terphenyl-d14 (Surr)	*73*		*42 - 157*	*04/30/23 10:36*	*05/02/23 19:02*	*1*

Method: SW846 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.39**	**J**	1.2	0.24	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Arsenic	**7.0**		0.62	0.21	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Barium	**110**	**B**	0.62	0.071	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Beryllium	**0.74**	**B**	0.25	0.058	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Boron	**5.2**	**B**	3.1	0.29	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Cadmium	**0.42**	**B**	0.12	0.022	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Calcium	**3500**		12	2.1	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Chromium	**14**		0.62	0.31	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Cobalt	**8.7**		0.31	0.081	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Copper	**19**		0.62	0.17	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Iron	**19000**		12	6.4	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Lead	**41**		0.31	0.14	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Magnesium	**2800**		6.2	3.1	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Manganese	**520**	**B**	0.62	0.090	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Nickel	**17**		0.62	0.18	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Potassium	**1400**		31	11	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Selenium	<0.62		0.62	0.36	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Silver	**0.33**		0.31	0.080	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Sodium	**2400**		62	9.2	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Thallium	**0.48**	**J**	0.62	0.31	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Vanadium	**21**	**B**	0.31	0.073	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1
Zinc	**89**		1.2	0.54	mg/Kg	☼	04/26/23 10:01	05/02/23 02:19	1

Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/25/23 17:08	04/28/23 23:30	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/25/23 17:08	04/28/23 23:30	1
Chromium	<0.025		0.025	0.010	mg/L		04/25/23 17:08	04/28/23 23:30	1
Iron	**0.81**		0.40	0.20	mg/L		04/25/23 17:08	04/28/23 23:30	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-232642-1

Client Sample ID: 2233V3-1-B142
Date Collected: 04/20/23 10:20
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-9
Matrix: Solid
Percent Solids: 78.6

Method: SW846 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		05/03/23 17:45	05/05/23 13:26	1
Manganese	**0.35**		0.025	0.010	mg/L		04/25/23 17:08	04/28/23 23:30	1
Nickel	<0.025		0.025	0.010	mg/L		04/25/23 17:08	04/28/23 23:30	1

Method: SW846 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.060**		0.050	0.010	mg/L		04/25/23 17:10	04/28/23 02:02	1
Barium	**1.1**		0.50	0.050	mg/L		04/25/23 17:10	04/28/23 02:02	1
Beryllium	**0.0096**		0.0040	0.0040	mg/L		04/25/23 17:10	04/28/23 02:02	1
Boron	**0.14**		0.10	0.050	mg/L		04/25/23 17:10	04/28/23 02:02	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/25/23 17:10	04/28/23 02:02	1
Calcium	**36**		2.5	0.50	mg/L		04/25/23 17:10	04/28/23 02:02	1
Chromium	**0.23**		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 02:02	1
Cobalt	**0.046**		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 02:02	1
Iron	**280**		0.40	0.20	mg/L		04/25/23 17:10	04/28/23 02:02	1
Lead	**0.41**	**B**	0.0075	0.0075	mg/L		04/25/23 17:10	04/28/23 02:02	1
Manganese	**1.3**		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 02:02	1
Nickel	**0.15**		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 02:02	1
Potassium	**27**		2.5	0.50	mg/L		04/25/23 17:10	04/28/23 02:02	1
Selenium	<0.050		0.050	0.020	mg/L		04/25/23 17:10	04/28/23 02:02	1
Silver	<0.025		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 02:02	1
Zinc	**1.2**		0.50	0.020	mg/L		04/25/23 17:10	04/28/23 02:02	1

Method: SW846 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		04/25/23 17:08	04/27/23 19:03	1

Method: SW846 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/25/23 17:10	04/26/23 16:09	1
Thallium	**0.0041**		0.0020	0.0020	mg/L		04/25/23 17:10	04/26/23 16:09	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/01/23 12:30	05/02/23 11:20	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.037**		0.020	0.010	mg/Kg	☼	05/03/23 17:05	05/04/23 09:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.27		0.27	0.14	mg/Kg	☼	04/27/23 08:20	04/27/23 10:21	1
pH (SW846 9045D)	**7.9**		0.2	0.2	SU			04/24/23 21:15	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-232642-1

Client Sample ID: 2233V3-1-B143
Date Collected: 04/20/23 10:30
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-10
Matrix: Solid
Percent Solids: 80.6

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0021		0.0021	0.00071	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
1,1,2,2-Tetrachloroethane	<0.0021		0.0021	0.00068	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
1,1,2-Trichloroethane	<0.0021		0.0021	0.00091	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
1,1-Dichloroethane	<0.0021		0.0021	0.00073	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
1,1-Dichloroethene	<0.0021		0.0021	0.00073	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
1,2-Dichloroethane	<0.0053		0.0053	0.0017	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
1,2-Dichloropropane	<0.0021		0.0021	0.00055	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
1,3-Dichloropropene, Total	<0.0021		0.0021	0.00074	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
2-Butanone (MEK)	<0.0053		0.0053	0.0024	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
2-Hexanone	<0.0053		0.0053	0.0017	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
4-Methyl-2-pentanone (MIBK)	<0.0053		0.0053	0.0016	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Acetone	**0.022**	***+**	0.021	0.0092	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Benzene	<0.0021		0.0021	0.00054	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Bromodichloromethane	<0.0021		0.0021	0.00043	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Bromoform	<0.0021		0.0021	0.00062	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Bromomethane	<0.0053	*-	0.0053	0.0020	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Carbon disulfide	<0.0053		0.0053	0.0011	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Carbon tetrachloride	<0.0021		0.0021	0.00061	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Chlorobenzene	<0.0021		0.0021	0.00078	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Chloroethane	<0.0053	*-	0.0053	0.0016	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Chloroform	<0.0021		0.0021	0.00074	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Chloromethane	<0.0053		0.0053	0.0021	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
cis-1,2-Dichloroethene	<0.0021		0.0021	0.00059	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
cis-1,3-Dichloropropene	<0.0021		0.0021	0.00064	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Dibromochloromethane	<0.0021		0.0021	0.00069	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Ethylbenzene	<0.0021		0.0021	0.0010	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Methyl tert-butyl ether	<0.0021		0.0021	0.00062	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Methylene Chloride	<0.0053		0.0053	0.0021	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Styrene	<0.0021		0.0021	0.00064	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Tetrachloroethene	<0.0021		0.0021	0.00072	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Toluene	**0.0012**	**J**	0.0021	0.00054	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
trans-1,2-Dichloroethene	<0.0021		0.0021	0.00094	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
trans-1,3-Dichloropropene	<0.0021		0.0021	0.00074	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Trichloroethene	<0.0021		0.0021	0.00072	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Vinyl chloride	<0.0021		0.0021	0.00094	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1
Xylenes, Total	<0.0042		0.0042	0.00068	mg/Kg	☼	04/21/23 17:15	04/25/23 14:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*70 - 134*	*04/21/23 17:15*	*04/25/23 14:47*	*1*
4-Bromofluorobenzene (Surr)	*105*		*75 - 131*	*04/21/23 17:15*	*04/25/23 14:47*	*1*
Dibromofluoromethane	*118*		*75 - 126*	*04/21/23 17:15*	*04/25/23 14:47*	*1*
Toluene-d8 (Surr)	*112*		*75 - 124*	*04/21/23 17:15*	*04/25/23 14:47*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-232642-1

Client Sample ID: 2233V3-1-B143
Date Collected: 04/20/23 10:30
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-10
Matrix: Solid
Percent Solids: 80.6

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
2-Methylnaphthalene	<0.081		0.081	0.0074	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
4-Bromophenyl phenyl ether	<0.20	*-	0.20	0.053	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
4-Chloro-3-methylphenol	<0.40	*-	0.40	0.14	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Di-n-octyl phthalate	<0.20	*-	0.20	0.065	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1

Client Sample ID: 2233V3-1-B143
Date Collected: 04/20/23 10:30
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-10
Matrix: Solid
Percent Solids: 80.6

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Phenanthrene	<0.040		0.040	0.0056	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1
Pyrene	<0.040		0.040	0.0080	mg/Kg	☼	04/30/23 10:36	05/02/23 19:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*61*		*31 - 143*	*04/30/23 10:36*	*05/02/23 19:27*	*1*
2-Fluorobiphenyl	*90*		*43 - 145*	*04/30/23 10:36*	*05/02/23 19:27*	*1*
2-Fluorophenol	*73*		*31 - 166*	*04/30/23 10:36*	*05/02/23 19:27*	*1*
Nitrobenzene-d5 (Surr)	*82*		*37 - 147*	*04/30/23 10:36*	*05/02/23 19:27*	*1*
Phenol-d5	*75*		*30 - 153*	*04/30/23 10:36*	*05/02/23 19:27*	*1*
Terphenyl-d14 (Surr)	*103*		*42 - 157*	*04/30/23 10:36*	*05/02/23 19:27*	*1*

Method: SW846 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.33**	**J**	1.1	0.22	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Arsenic	**8.0**		0.57	0.20	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Barium	**82**	**B**	0.57	0.065	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Beryllium	**0.79**	**B**	0.23	0.053	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Boron	**5.3**	**B**	2.9	0.27	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Cadmium	**0.21**	**B**	0.11	0.021	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Calcium	**22000**		11	1.9	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Chromium	**15**		0.57	0.28	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Cobalt	**11**		0.29	0.075	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Copper	**15**		0.57	0.16	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Iron	**21000**		11	5.9	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Lead	**13**		0.29	0.13	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Magnesium	**13000**		5.7	2.8	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Manganese	**330**	**B**	0.57	0.083	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Nickel	**24**		0.57	0.17	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Potassium	**1300**		29	10	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Selenium	<0.57		0.57	0.34	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Silver	**0.46**		0.29	0.074	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Sodium	**2100**		57	8.5	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Thallium	**0.48**	**J**	0.57	0.29	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Vanadium	**23**	**B**	0.29	0.067	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1
Zinc	**69**		1.1	0.50	mg/Kg	☼	04/26/23 10:01	05/02/23 02:22	1

Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		04/25/23 17:08	04/28/23 23:34	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/25/23 17:08	04/28/23 23:34	1
Chromium	<0.025		0.025	0.010	mg/L		04/25/23 17:08	04/28/23 23:34	1
Iron	**0.35**	**J**	0.40	0.20	mg/L		04/25/23 17:08	04/28/23 23:34	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-232642-1

Client Sample ID: 2233V3-1-B143
Date Collected: 04/20/23 10:30
Date Received: 04/21/23 13:18

Lab Sample ID: 500-232642-10
Matrix: Solid
Percent Solids: 80.6

Method: SW846 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		05/03/23 17:45	05/05/23 13:29	1
Manganese	**8.4**		0.025	0.010	mg/L		04/25/23 17:08	04/28/23 23:34	1
Nickel	**0.021**	**J**	0.025	0.010	mg/L		04/25/23 17:08	04/28/23 23:34	1

Method: SW846 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.11**		0.050	0.010	mg/L		04/25/23 17:10	04/28/23 02:06	1
Barium	**0.84**		0.50	0.050	mg/L		04/25/23 17:10	04/28/23 02:06	1
Beryllium	**0.0086**		0.0040	0.0040	mg/L		04/25/23 17:10	04/28/23 02:06	1
Boron	**0.12**		0.10	0.050	mg/L		04/25/23 17:10	04/28/23 02:06	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/25/23 17:10	04/28/23 02:06	1
Calcium	**34**		2.5	0.50	mg/L		04/25/23 17:10	04/28/23 02:06	1
Chromium	**0.16**		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 02:06	1
Cobalt	**0.087**		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 02:06	1
Iron	**220**		0.40	0.20	mg/L		04/25/23 17:10	04/28/23 02:06	1
Lead	**0.13**	**B**	0.0075	0.0075	mg/L		04/25/23 17:10	04/28/23 02:06	1
Manganese	**2.5**		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 02:06	1
Nickel	**0.21**		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 02:06	1
Potassium	**20**		2.5	0.50	mg/L		04/25/23 17:10	04/28/23 02:06	1
Selenium	<0.050		0.050	0.020	mg/L		04/25/23 17:10	04/28/23 02:06	1
Silver	<0.025		0.025	0.010	mg/L		04/25/23 17:10	04/28/23 02:06	1
Zinc	**0.71**		0.50	0.020	mg/L		04/25/23 17:10	04/28/23 02:06	1

Method: SW846 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		04/25/23 17:08	04/27/23 19:05	1

Method: SW846 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/25/23 17:10	04/26/23 16:11	1
Thallium	**0.0032**		0.0020	0.0020	mg/L		04/25/23 17:10	04/26/23 16:11	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/01/23 12:30	05/02/23 11:22	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.026**		0.020	0.010	mg/Kg	☼	05/03/23 17:05	05/04/23 09:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.29		0.29	0.15	mg/Kg	☼	04/27/23 08:21	04/27/23 10:23	1
pH (SW846 9045D)	**7.7**		0.2	0.2	SU			04/24/23 21:17	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*3	ISTD response or retention time outside acceptable limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-232642-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-23 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

ANDREWS ENGINEERING

CHAIN OF CUSTODY RECORD

Client Contact

Andrews Engineering, Inc
3300 Ginger Creek Drive
Springfield, IL 62711
217-787-2334
Contact Colleen Grey
email cgrey@andrews-eng com

500-232642 COC

Laboratory

Lab **Eurofins - Chicago**
Address **2417 Bond Street**
University Park, IL 60484
Phone **708-534-5200**
Contact **Jodie Bracken**
email Jodie Bracken@ET EurofinsUS com

Project Name AE8-010A
Project No PTB/WO:195-002/010A
TAT ☒ 15 BD ☐ 10 BD ☐ 5 BD ☐ 2 BD ____ Other
Sampler: J. Weisbrodt

COC No 1 of 3
Lab Job No.: 580-232642
Sample Temp: 2.4-23, 2.2-23, 2.1

Special Instructions:

See Table 2 for complete parameter lists and minimum reporting limits

* If Total RCRA metal (mg/kg) result exceeds the Soil Toxicity Characteristics Limit (Table 3) run TCLP for that specific RCRA metal

** If SPLP result exceeds Class I Standard run TCLP for that specific parameter

*** If total cyanide exceeds MAC run ASTM D3987 (Neutral Leach) cyanide

Matrix Key:

W Water
S Soil
SL Sludge
S Sediment
L Leachate
DW Drinking Water
OL Oil
O Other

ANALYSES

Lab ID	Sample ID	Sample Date	Sample Time	Matrix	VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization				Comments
1	2233V3-1- B141	4/20/23	0900	S	X	X					X	X	X	X	X					
2	2233V3-1- B140		0910																	
3	2233V3-1- B182		0920																	
4	2233V3-1- B181		0930																	
5	2233V3-1- B181 DUP		0940																	
6	2233V3-1- BH4-1		0950																	
7	2233V3-1- B144-2		1000																	
8	2233V3-1- B144-3		1010																	
9	2233V3-1- BH2		1020																	
10	2233V3-1- BH3		1030																	
11	2233V3-1- B145-1	↓	1040	↓	↓	↓					↓	↓	↓	↓	↓					

Relinquished by Jared Weisbrodt	Date/Time 4/21/23	Received by Darryl Hunter EETA	Date/Time 4/21/23 1135
Relinquished by Darryl Hunter EETA	Date/Time 4/21/23 1318	Received by [illegible]	Date/Time 4/21/23 1315
Relinquished by	Date/Time	Received by	Date/Time

ANDREWS ENGINEERING

CHAIN OF CUSTODY RECORD

Client Contact	Laboratory	Project Name AE8-010A	COC No 3 of 3
Andrews Engineering, Inc 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact Colleen Grey email cgrey@andrews-eng com	Lab **Eurofins - Chicago** Address **2417 Bond Street** **University Park, IL 60484** Phone **708-534-5200** Contact **Jodie Bracken** email Jodie Bracken@ET EurofinsUS com	Project No PTB/WO #1 195-002 / 010A TAT ☒ 15 BD ☐ 10 BD ☐ 5 BD ☐ 2 BD ___ Other **Sampler:** J. Weisbrodt	**Lab Job No.:** 500-232642 **Sample Temp:**

Special Instructions:

See Table 2 for complete parameter lists and minimum reporting limits

* If Total RCRA metal (mg/kg) result exceeds the Soil Toxicity Characteristics Limit (Table 3) run TCLP for that specific RCRA metal

** If SPLP result exceeds Class I Standard run TCLP for that specific parameter

*** If total cyanide exceeds MAC run ASTM D3987 (Neutral Leach) cyanide

Matrix Key:

W Water
S Soil
SL Sludge
S Sediment
L Leachate
DW Drinking Water
OL Oil
O Other

ANALYSES

Lab ID	Sample ID	Sample Date	Sample Time	Matrix	VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization				Comments
23	2233V3-1-B149-3	4/20/23	1240	S	X	X					X	X	X	X	X					
	Trip Blank #2			S	X															

Relinquished by Jared Weisbrodt	Date/Time 4/21/23	Received by Darryl Handles CETA	Date/Time 4/21/23 1135
Relinquished by Darryl Handles CETA	Date/Time 4/21/23 1318	Received by [illegible]	Date/Time 4/21/23 1318
Relinquished by	Date/Time	Received by	Date/Time

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Colleen Grey
Andrews Engineering Inc.
3300 Ginger Creek Drive
Springfield, Illinois 62711

Generated 5/26/2023 4:03:35 PM Revision 1

JOB DESCRIPTION

IDOT - AE8-010

JOB NUMBER

500-233041-1

Eurofins Chicago
2417 Bond Street
University Park IL 60484

See page two for job notes and contact information.

myEOL

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

Authorization

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Revision 1

Authorized for release by
Jodie Bracken, Project Management Assistant II
Jodie.Bracken@et.eurofinsus.com
(708)534-5200

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233041-1

Client Sample ID: 2233V3-1-B178
Date Collected: 04/28/23 09:20
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-3
Matrix: Solid
Percent Solids: 82.8

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00079	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
1,2-Dichloropropane	<0.0018		0.0018	0.00048	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00065	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
2-Butanone (MEK)	<0.0046	*1	0.0046	0.0020	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
2-Hexanone	<0.0046	*1	0.0046	0.0014	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
4-Methyl-2-pentanone (MIBK)	<0.0046	*1	0.0046	0.0014	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Acetone	<0.018		0.018	0.0080	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Bromoform	<0.0018		0.0018	0.00054	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Carbon disulfide	<0.0046		0.0046	0.00096	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Chlorobenzene	<0.0018		0.0018	0.00068	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Chloroform	<0.0018		0.0018	0.00064	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Chloromethane	<0.0046	*+	0.0046	0.0018	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Ethylbenzene	<0.0018		0.0018	0.00088	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Styrene	<0.0018		0.0018	0.00056	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Tetrachloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00065	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	04/29/23 13:30	05/03/23 07:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 134*	*04/29/23 13:30*	*05/03/23 07:16*	*1*
4-Bromofluorobenzene (Surr)	*99*		*75 - 131*	*04/29/23 13:30*	*05/03/23 07:16*	*1*
Dibromofluoromethane	*98*		*75 - 126*	*04/29/23 13:30*	*05/03/23 07:16*	*1*
Toluene-d8 (Surr)	*92*		*75 - 124*	*04/29/23 13:30*	*05/03/23 07:16*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.028	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
1,2-Dichlorobenzene	<0.20		0.20	0.016	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
1,3-Dichlorobenzene	<0.20		0.20	0.018	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
1,4-Dichlorobenzene	<0.20		0.20	0.018	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.028	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233041-1

Client Sample ID: 2233V3-1-B178
Date Collected: 04/28/23 09:20
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-3
Matrix: Solid
Percent Solids: 82.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.015	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
2,4,6-Trichlorophenol	<0.39		0.39	0.013	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
2,4-Dichlorophenol	<0.39		0.39	0.014	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
2,4-Dimethylphenol	<0.39		0.39	0.088	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
2,4-Dinitrophenol	<0.79		0.79	0.23	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
2,4-Dinitrotoluene	<0.20		0.20	0.022	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
2,6-Dinitrotoluene	<0.20		0.20	0.013	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
2-Chloronaphthalene	<0.20		0.20	0.015	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
2-Chlorophenol	<0.20		0.20	0.013	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
2-Methylnaphthalene	<0.079		0.079	0.0078	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
2-Methylphenol	<0.20		0.20	0.021	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
2-Nitroaniline	<0.20		0.20	0.021	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
2-Nitrophenol	<0.39		0.39	0.026	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
3 & 4 Methylphenol	<0.20		0.20	0.029	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.032	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
3-Nitroaniline	<0.39		0.39	0.018	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.22	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.027	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
4-Chloro-3-methylphenol	<0.39		0.39	0.015	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
4-Chloroaniline	<0.79		0.79	0.41	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
4-Nitroaniline	<0.39		0.39	0.029	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
4-Nitrophenol	<0.79		0.79	0.14	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Acenaphthene	<0.039		0.039	0.0079	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Acenaphthylene	<0.039		0.039	0.0066	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Anthracene	<0.039		0.039	0.0080	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Benzo[a]anthracene	**0.022**	**J**	0.039	0.0083	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Benzo[a]pyrene	<0.039		0.039	0.038	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Benzo[b]fluoranthene	<0.039		0.039	0.037	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Benzo[g,h,i]perylene	**0.016**	**J**	0.039	0.0085	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Benzo[k]fluoranthene	<0.039		0.039	0.015	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.015	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.018	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.15	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Butyl benzyl phthalate	<0.20		0.20	0.019	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Carbazole	<0.20		0.20	0.015	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Chrysene	**0.015**	**J**	0.039	0.010	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Dibenz(a,h)anthracene	<0.039		0.039	0.039	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Dibenzofuran	<0.20		0.20	0.014	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Diethyl phthalate	<0.20		0.20	0.018	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Dimethyl phthalate	<0.20		0.20	0.0085	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Di-n-butyl phthalate	<0.20		0.20	0.012	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Di-n-octyl phthalate	<0.39		0.39	0.27	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Fluoranthene	**0.020**	**J**	0.039	0.0091	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Fluorene	<0.039		0.039	0.012	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Hexachlorobenzene	<0.079		0.079	0.0075	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Hexachlorobutadiene	<0.20		0.20	0.022	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Hexachlorocyclopentadiene	<0.79		0.79	0.41	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Hexachloroethane	<0.20		0.20	0.020	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1

Client Sample ID: 2233V3-1-B178

Date Collected: 04/28/23 09:20
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-3

Matrix: Solid
Percent Solids: 82.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.038	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Isophorone	<0.20		0.20	0.020	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Naphthalene	<0.039		0.039	0.0071	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Nitrobenzene	<0.039		0.039	0.012	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.0077	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
N-Nitrosodiphenylamine	<0.20		0.20	0.023	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Pentachlorophenol	<0.79		0.79	0.098	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Phenanthrene	<0.039		0.039	0.0085	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Phenol	<0.20		0.20	0.017	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1
Pyrene	**0.018**	**J**	0.039	0.011	mg/Kg	☼	05/10/23 07:54	05/11/23 12:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*53*		*31 - 166*	*05/10/23 07:54*	*05/11/23 12:51*	*1*
Phenol-d5	*56*		*30 - 153*	*05/10/23 07:54*	*05/11/23 12:51*	*1*
Nitrobenzene-d5 (Surr)	*60*		*37 - 147*	*05/10/23 07:54*	*05/11/23 12:51*	*1*
2-Fluorobiphenyl	*75*		*43 - 145*	*05/10/23 07:54*	*05/11/23 12:51*	*1*
2,4,6-Tribromophenol	*75*		*31 - 143*	*05/10/23 07:54*	*05/11/23 12:51*	*1*
Terphenyl-d14 (Surr)	*81*		*42 - 157*	*05/10/23 07:54*	*05/11/23 12:51*	*1*

Method: SW846 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.50**	**J**	1.2	0.23	mg/Kg	☼	05/02/23 15:49	05/12/23 01:37	1
Arsenic	**9.5**		0.60	0.20	mg/Kg	☼	05/02/23 15:49	05/12/23 01:37	1
Barium	**64**	**B**	0.60	0.068	mg/Kg	☼	05/02/23 15:49	05/12/23 01:37	1
Beryllium	**0.61**		0.48	0.11	mg/Kg	☼	05/02/23 15:49	05/12/23 22:23	2
Boron	**13**		6.0	0.56	mg/Kg	☼	05/02/23 15:49	05/12/23 22:23	2
Cadmium	**0.15**	**B**	0.12	0.021	mg/Kg	☼	05/02/23 15:49	05/12/23 01:37	1
Calcium	**51000**	**B**	24	4.0	mg/Kg	☼	05/02/23 15:49	05/12/23 22:23	2
Chromium	**17**		0.60	0.29	mg/Kg	☼	05/02/23 15:49	05/12/23 01:37	1
Cobalt	**13**		0.30	0.078	mg/Kg	☼	05/02/23 15:49	05/12/23 01:37	1
Copper	**26**		0.60	0.17	mg/Kg	☼	05/02/23 15:49	05/12/23 01:37	1
Iron	**21000**	**B**	12	6.2	mg/Kg	☼	05/02/23 15:49	05/12/23 01:37	1
Lead	**21**		0.30	0.14	mg/Kg	☼	05/02/23 15:49	05/12/23 01:37	1
Magnesium	**26000**	**B**	12	5.9	mg/Kg	☼	05/02/23 15:49	05/12/23 22:23	2
Manganese	**540**	**B**	1.2	0.17	mg/Kg	☼	05/02/23 15:49	05/12/23 22:23	2
Nickel	**37**		0.60	0.17	mg/Kg	☼	05/02/23 15:49	05/12/23 01:37	1
Potassium	**2300**		30	11	mg/Kg	☼	05/02/23 15:49	05/12/23 01:37	1
Selenium	<1.2		1.2	0.70	mg/Kg	☼	05/02/23 15:49	05/12/23 22:23	2
Silver	<0.30		0.30	0.077	mg/Kg	☼	05/02/23 15:49	05/12/23 01:37	1
Sodium	**1300**		60	8.8	mg/Kg	☼	05/02/23 15:49	05/12/23 01:37	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	05/02/23 15:49	05/12/23 01:37	1
Vanadium	**22**	**B**	0.30	0.070	mg/Kg	☼	05/02/23 15:49	05/12/23 01:37	1
Zinc	**73**		1.2	0.52	mg/Kg	☼	05/02/23 15:49	05/12/23 01:37	1

Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		05/04/23 17:28	05/17/23 16:58	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/04/23 17:28	05/17/23 16:58	1
Chromium	<0.025		0.025	0.010	mg/L		05/04/23 17:28	05/17/23 16:58	1
Iron	<0.40		0.40	0.20	mg/L		05/04/23 17:28	05/17/23 16:58	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233041-1

Client Sample ID: 2233V3-1-B178
Date Collected: 04/28/23 09:20
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-3
Matrix: Solid
Percent Solids: 82.8

Method: SW846 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.21		0.0075	0.0075	mg/L		05/04/23 17:28	05/17/23 16:58	1
Manganese	3.0		0.025	0.010	mg/L		05/04/23 17:28	05/17/23 16:58	1
Nickel	0.026		0.025	0.010	mg/L		05/04/23 17:28	05/17/23 16:58	1

Method: SW846 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.19		0.050	0.010	mg/L		05/03/23 17:48	05/12/23 03:54	1
Barium	0.72		0.50	0.050	mg/L		05/03/23 17:48	05/12/23 03:54	1
Beryllium	0.0080		0.0040	0.0040	mg/L		05/03/23 17:48	05/12/23 03:54	1
Boron	0.26		0.10	0.050	mg/L		05/03/23 17:48	05/12/23 18:19	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/03/23 17:48	05/12/23 03:54	1
Calcium	38	B	2.5	0.50	mg/L		05/03/23 17:48	05/12/23 03:54	1
Chromium	0.21		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 03:54	1
Cobalt	0.088		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 03:54	1
Iron	300		0.40	0.20	mg/L		05/03/23 17:48	05/12/23 18:19	1
Lead	0.18		0.0075	0.0075	mg/L		05/03/23 17:48	05/12/23 03:54	1
Manganese	1.2		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 18:19	1
Nickel	0.29		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 03:54	1
Potassium	31		2.5	0.50	mg/L		05/03/23 17:48	05/12/23 03:54	1
Selenium	<0.050		0.050	0.020	mg/L		05/03/23 17:48	05/12/23 03:54	1
Silver	<0.025		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 03:54	1
Zinc	1.0		0.50	0.020	mg/L		05/03/23 17:48	05/12/23 03:54	1

Method: SW846 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		05/04/23 17:28	05/08/23 17:38	1

Method: SW846 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/03/23 17:48	05/04/23 23:36	1
Thallium	0.0059		0.0020	0.0020	mg/L		05/03/23 17:48	05/04/23 23:36	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/11/23 11:40	05/12/23 09:49	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.033		0.019	0.0099	mg/Kg	☼	05/11/23 16:00	05/12/23 07:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	0.22	J	0.29	0.14	mg/Kg	☼	05/04/23 08:12	05/04/23 09:55	1
pH (SW846 9045D)	8.6		0.2	0.2	SU			05/04/23 17:42	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233041-1

Client Sample ID: 2233V3-1-B176-1
Date Collected: 04/28/23 10:00
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-7
Matrix: Solid
Percent Solids: 83.4

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
2-Butanone (MEK)	<0.0045	*1	0.0045	0.0020	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
2-Hexanone	<0.0045	*1	0.0045	0.0014	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
4-Methyl-2-pentanone (MIBK)	<0.0045	*1	0.0045	0.0013	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Acetone	<0.018		0.018	0.0078	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Carbon disulfide	<0.0045		0.0045	0.00093	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Chloromethane	<0.0045	*+	0.0045	0.0018	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Ethylbenzene	<0.0018		0.0018	0.00086	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Toluene	**0.00054**	**J**	0.0018	0.00045	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	04/29/23 13:30	05/03/23 08:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 134*	*04/29/23 13:30*	*05/03/23 08:58*	*1*
4-Bromofluorobenzene (Surr)	*93*		*75 - 131*	*04/29/23 13:30*	*05/03/23 08:58*	*1*
Dibromofluoromethane	*97*		*75 - 126*	*04/29/23 13:30*	*05/03/23 08:58*	*1*
Toluene-d8 (Surr)	*91*		*75 - 124*	*04/29/23 13:30*	*05/03/23 08:58*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20	F1	0.20	0.028	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
1,2-Dichlorobenzene	<0.20	F1	0.20	0.016	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
1,3-Dichlorobenzene	<0.20	F1	0.20	0.018	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
1,4-Dichlorobenzene	<0.20	F1	0.20	0.018	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
2,2'-oxybis[1-chloropropane]	<0.20	F1	0.20	0.028	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233041-1

Client Sample ID: 2233V3-1-B176-1
Date Collected: 04/28/23 10:00
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-7
Matrix: Solid
Percent Solids: 83.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.015	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
2,4,6-Trichlorophenol	<0.39	F1	0.39	0.013	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
2,4-Dichlorophenol	<0.39	F1	0.39	0.014	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
2,4-Dimethylphenol	<0.39	F1	0.39	0.087	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
2,4-Dinitrophenol	<0.79		0.79	0.23	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
2,4-Dinitrotoluene	<0.20	F1	0.20	0.022	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
2,6-Dinitrotoluene	<0.20	F1	0.20	0.013	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
2-Chloronaphthalene	<0.20	F1	0.20	0.015	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
2-Chlorophenol	<0.20	F1	0.20	0.013	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
2-Methylnaphthalene	<0.079	F1	0.079	0.0078	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
2-Methylphenol	<0.20	F1	0.20	0.021	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
2-Nitroaniline	<0.20	F1	0.20	0.021	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
2-Nitrophenol	<0.39	F1	0.39	0.026	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
3 & 4 Methylphenol	<0.20	F1	0.20	0.029	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.032	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
3-Nitroaniline	<0.39		0.39	0.018	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.22	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
4-Bromophenyl phenyl ether	<0.20	F1	0.20	0.027	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
4-Chloro-3-methylphenol	<0.39	F1	0.39	0.015	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
4-Chloroaniline	<0.79		0.79	0.41	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
4-Chlorophenyl phenyl ether	<0.20	F1	0.20	0.051	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
4-Nitroaniline	<0.39	F1	0.39	0.029	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
4-Nitrophenol	<0.79		0.79	0.14	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Acenaphthene	<0.039	F1	0.039	0.0079	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Acenaphthylene	<0.039	F1	0.039	0.0066	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Anthracene	<0.039	F1	0.039	0.0080	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Benzo[a]anthracene	**0.016**	**J F1**	0.039	0.0083	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Benzo[a]pyrene	<0.039	F1	0.039	0.038	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Benzo[b]fluoranthene	<0.039	F1	0.039	0.037	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Benzo[g,h,i]perylene	<0.039	F1	0.039	0.0085	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Benzo[k]fluoranthene	<0.039	F1	0.039	0.015	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Bis(2-chloroethoxy)methane	<0.20	F1	0.20	0.015	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Bis(2-chloroethyl)ether	<0.20	F1	0.20	0.018	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Bis(2-ethylhexyl) phthalate	<0.20	F1	0.20	0.15	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Butyl benzyl phthalate	<0.20	F1	0.20	0.019	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Carbazole	<0.20	F1	0.20	0.015	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Chrysene	<0.039	F1	0.039	0.010	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Dibenz(a,h)anthracene	<0.039	F1	0.039	0.039	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Dibenzofuran	<0.20	F1	0.20	0.014	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Diethyl phthalate	<0.20	F1	0.20	0.018	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Dimethyl phthalate	<0.20	F1	0.20	0.0085	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Di-n-butyl phthalate	<0.20	F1	0.20	0.012	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Di-n-octyl phthalate	<0.39	F1	0.39	0.27	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Fluoranthene	**0.017**	**J F1**	0.039	0.0091	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Fluorene	<0.039	F1	0.039	0.012	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Hexachlorobenzene	<0.079	F1	0.079	0.0075	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Hexachlorobutadiene	<0.20	F1	0.20	0.022	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Hexachlorocyclopentadiene	<0.79	F1	0.79	0.41	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Hexachloroethane	<0.20	F1	0.20	0.020	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233041-1

Client Sample ID: 2233V3-1-B176-1
Date Collected: 04/28/23 10:00
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-7
Matrix: Solid
Percent Solids: 83.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.039	F1	0.039	0.038	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Isophorone	<0.20	F1	0.20	0.020	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Naphthalene	<0.039	F1	0.039	0.0071	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Nitrobenzene	<0.039	F1	0.039	0.012	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
N-Nitrosodi-n-propylamine	<0.079	F1	0.079	0.0077	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
N-Nitrosodiphenylamine	<0.20	F1	0.20	0.023	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Pentachlorophenol	<0.79		0.79	0.098	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Phenanthrene	<0.039	F1	0.039	0.0085	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Phenol	<0.20	F1	0.20	0.017	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1
Pyrene	**0.015**	**J F1**	0.039	0.011	mg/Kg	☼	05/10/23 07:54	05/11/23 14:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*54*		*31 - 166*	*05/10/23 07:54*	*05/11/23 14:05*	*1*
Phenol-d5	*57*		*30 - 153*	*05/10/23 07:54*	*05/11/23 14:05*	*1*
Nitrobenzene-d5 (Surr)	*60*		*37 - 147*	*05/10/23 07:54*	*05/11/23 14:05*	*1*
2-Fluorobiphenyl	*73*		*43 - 145*	*05/10/23 07:54*	*05/11/23 14:05*	*1*
2,4,6-Tribromophenol	*79*		*31 - 143*	*05/10/23 07:54*	*05/11/23 14:05*	*1*
Terphenyl-d14 (Surr)	*76*		*42 - 157*	*05/10/23 07:54*	*05/11/23 14:05*	*1*

Method: SW846 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.44**	**J**	1.2	0.23	mg/Kg	☼	05/02/23 15:49	05/12/23 01:56	1
Arsenic	**8.1**		0.60	0.20	mg/Kg	☼	05/02/23 15:49	05/12/23 01:56	1
Barium	**70**	**B**	0.60	0.068	mg/Kg	☼	05/02/23 15:49	05/12/23 01:56	1
Beryllium	**0.58**		0.48	0.11	mg/Kg	☼	05/02/23 15:49	05/12/23 22:35	2
Boron	**9.7**		6.0	0.56	mg/Kg	☼	05/02/23 15:49	05/12/23 22:35	2
Cadmium	**0.19**	**B**	0.12	0.022	mg/Kg	☼	05/02/23 15:49	05/12/23 01:56	1
Calcium	**57000**	**B**	24	4.1	mg/Kg	☼	05/02/23 15:49	05/12/23 22:35	2
Chromium	**15**		0.60	0.30	mg/Kg	☼	05/02/23 15:49	05/12/23 01:56	1
Cobalt	**9.7**		0.30	0.078	mg/Kg	☼	05/02/23 15:49	05/12/23 01:56	1
Copper	**22**		0.60	0.17	mg/Kg	☼	05/02/23 15:49	05/12/23 01:56	1
Iron	**19000**	**B**	24	12	mg/Kg	☼	05/02/23 15:49	05/12/23 22:35	2
Lead	**51**		0.30	0.14	mg/Kg	☼	05/02/23 15:49	05/12/23 01:56	1
Magnesium	**28000**	**B**	12	5.9	mg/Kg	☼	05/02/23 15:49	05/12/23 22:35	2
Manganese	**420**	**B**	1.2	0.17	mg/Kg	☼	05/02/23 15:49	05/12/23 22:35	2
Nickel	**24**		0.60	0.17	mg/Kg	☼	05/02/23 15:49	05/12/23 01:56	1
Potassium	**1500**		30	11	mg/Kg	☼	05/02/23 15:49	05/12/23 01:56	1
Selenium	<1.2		1.2	0.70	mg/Kg	☼	05/02/23 15:49	05/12/23 22:35	2
Silver	<0.30		0.30	0.077	mg/Kg	☼	05/02/23 15:49	05/12/23 01:56	1
Sodium	**2300**		60	8.9	mg/Kg	☼	05/02/23 15:49	05/12/23 01:56	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	05/02/23 15:49	05/12/23 01:56	1
Vanadium	**21**	**B**	0.30	0.071	mg/Kg	☼	05/02/23 15:49	05/12/23 01:56	1
Zinc	**79**		1.2	0.53	mg/Kg	☼	05/02/23 15:49	05/12/23 01:56	1

Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		05/04/23 17:28	05/17/23 16:13	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/04/23 17:28	05/17/23 16:13	1
Chromium	<0.025		0.025	0.010	mg/L		05/04/23 17:28	05/17/23 16:13	1
Iron	**1.2**		0.40	0.20	mg/L		05/04/23 17:28	05/17/23 16:13	1

Client Sample ID: 2233V3-1-B176-1

Date Collected: 04/28/23 10:00
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-7

Matrix: Solid
Percent Solids: 83.4

Method: SW846 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.013**		0.0075	0.0075	mg/L		05/04/23 17:28	05/17/23 16:13	1
Manganese	**7.7**		0.025	0.010	mg/L		05/04/23 17:28	05/17/23 16:13	1
Nickel	**0.035**		0.025	0.010	mg/L		05/04/23 17:28	05/17/23 16:13	1

Method: SW846 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.10**		0.050	0.010	mg/L		05/03/23 17:48	05/12/23 04:06	1
Barium	**0.86**		0.50	0.050	mg/L		05/03/23 17:48	05/12/23 04:06	1
Beryllium	**0.0064**		0.0040	0.0040	mg/L		05/03/23 17:48	05/12/23 04:06	1
Boron	**0.15**		0.10	0.050	mg/L		05/03/23 17:48	05/12/23 18:31	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/03/23 17:48	05/12/23 04:06	1
Calcium	**40**	**B**	2.5	0.50	mg/L		05/03/23 17:48	05/12/23 04:06	1
Chromium	**0.16**		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 04:06	1
Cobalt	**0.083**		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 04:06	1
Iron	**200**		0.40	0.20	mg/L		05/03/23 17:48	05/12/23 18:31	1
Lead	**0.43**		0.0075	0.0075	mg/L		05/03/23 17:48	05/12/23 04:06	1
Manganese	**2.8**		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 18:31	1
Nickel	**0.21**		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 04:06	1
Potassium	**22**	**F1**	2.5	0.50	mg/L		05/03/23 17:48	05/12/23 04:06	1
Selenium	<0.050	F1	0.050	0.020	mg/L		05/03/23 17:48	05/12/23 04:06	1
Silver	<0.025		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 04:06	1
Zinc	**0.75**		0.50	0.020	mg/L		05/03/23 17:48	05/12/23 04:06	1

Method: SW846 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		05/04/23 17:28	05/08/23 17:09	1

Method: SW846 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/03/23 17:48	05/04/23 23:49	1
Thallium	**0.0036**		0.0020	0.0020	mg/L		05/03/23 17:48	05/04/23 23:49	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/11/23 11:40	05/12/23 10:01	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.030**		0.019	0.0098	mg/Kg	☼	05/11/23 16:00	05/12/23 07:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.25		0.25	0.13	mg/Kg	☼	05/04/23 08:19	05/04/23 10:08	1
pH (SW846 9045D)	**8.6**		0.2	0.2	SU			05/04/23 17:52	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233041-1

Client Sample ID: 2233V3-1-B176-2
Date Collected: 04/28/23 10:10
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-8
Matrix: Solid
Percent Solids: 85.4

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00071	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
1,1-Dichloroethene	<0.0016		0.0016	0.00057	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
1,2-Dichloropropane	<0.0016		0.0016	0.00043	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00058	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Acetone	<0.016		0.016	0.0072	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Benzene	<0.0016		0.0016	0.00042	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Bromodichloromethane	<0.0016		0.0016	0.00034	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Bromomethane	<0.0041		0.0041	0.0016	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Carbon disulfide	<0.0041		0.0041	0.00086	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Carbon tetrachloride	<0.0016		0.0016	0.00048	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Chlorobenzene	<0.0016		0.0016	0.00061	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Chloroform	<0.0016		0.0016	0.00057	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Chloromethane	<0.0041		0.0041	0.0017	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00046	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00050	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Dibromochloromethane	<0.0016		0.0016	0.00054	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Ethylbenzene	<0.0016		0.0016	0.00079	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Styrene	<0.0016		0.0016	0.00050	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Tetrachloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Toluene	**0.00097**	**J**	0.0016	0.00042	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00073	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00058	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Trichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Vinyl chloride	<0.0016		0.0016	0.00073	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	04/29/23 13:30	05/03/23 13:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 134*	*04/29/23 13:30*	*05/03/23 13:45*	*1*
4-Bromofluorobenzene (Surr)	*92*		*75 - 131*	*04/29/23 13:30*	*05/03/23 13:45*	*1*
Dibromofluoromethane	*99*		*75 - 126*	*04/29/23 13:30*	*05/03/23 13:45*	*1*
Toluene-d8 (Surr)	*90*		*75 - 124*	*04/29/23 13:30*	*05/03/23 13:45*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.027	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
1,2-Dichlorobenzene	<0.19		0.19	0.015	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
1,3-Dichlorobenzene	<0.19		0.19	0.017	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
1,4-Dichlorobenzene	<0.19		0.19	0.018	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.027	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233041-1

Client Sample ID: 2233V3-1-B176-2
Date Collected: 04/28/23 10:10
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-8
Matrix: Solid
Percent Solids: 85.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.37		0.37	0.014	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
2,4,6-Trichlorophenol	<0.37		0.37	0.013	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
2,4-Dichlorophenol	<0.37		0.37	0.013	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
2,4-Dimethylphenol	<0.37		0.37	0.083	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
2,4-Dinitrophenol	<0.75		0.75	0.21	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
2,4-Dinitrotoluene	<0.19		0.19	0.021	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
2,6-Dinitrotoluene	<0.19		0.19	0.013	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
2-Chloronaphthalene	<0.19		0.19	0.014	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
2-Chlorophenol	<0.19		0.19	0.012	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
2-Methylnaphthalene	<0.075		0.075	0.0075	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
2-Methylphenol	<0.19		0.19	0.020	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
2-Nitroaniline	<0.19		0.19	0.020	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
2-Nitrophenol	<0.37		0.37	0.025	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
3 & 4 Methylphenol	<0.19		0.19	0.027	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.030	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
3-Nitroaniline	<0.37		0.37	0.017	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.21	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.025	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
4-Chloro-3-methylphenol	<0.37		0.37	0.014	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
4-Chloroaniline	<0.75		0.75	0.39	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
4-Nitroaniline	<0.37		0.37	0.027	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
4-Nitrophenol	<0.75		0.75	0.14	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Acenaphthene	<0.037		0.037	0.0076	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Acenaphthylene	<0.037		0.037	0.0063	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Anthracene	<0.037		0.037	0.0076	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Benzo[a]anthracene	<0.037		0.037	0.0079	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Benzo[a]pyrene	<0.037		0.037	0.036	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Benzo[b]fluoranthene	<0.037		0.037	0.035	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Benzo[g,h,i]perylene	<0.037		0.037	0.0080	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Benzo[k]fluoranthene	<0.037		0.037	0.014	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.014	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.017	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.15	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Butyl benzyl phthalate	<0.19		0.19	0.018	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Carbazole	<0.19		0.19	0.015	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Chrysene	<0.037		0.037	0.0098	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Dibenz(a,h)anthracene	<0.037		0.037	0.037	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Dibenzofuran	<0.19		0.19	0.013	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Diethyl phthalate	<0.19		0.19	0.017	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Dimethyl phthalate	<0.19		0.19	0.0081	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Di-n-butyl phthalate	<0.19		0.19	0.012	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Di-n-octyl phthalate	<0.37		0.37	0.26	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Fluoranthene	<0.037		0.037	0.0086	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Fluorene	<0.037		0.037	0.011	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Hexachlorobenzene	<0.075		0.075	0.0071	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Hexachlorobutadiene	<0.19		0.19	0.021	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Hexachlorocyclopentadiene	<0.75		0.75	0.39	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Hexachloroethane	<0.19		0.19	0.019	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233041-1

Client Sample ID: 2233V3-1-B176-2
Date Collected: 04/28/23 10:10
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-8
Matrix: Solid
Percent Solids: 85.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.036	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Isophorone	<0.19		0.19	0.019	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Naphthalene	<0.037		0.037	0.0067	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Nitrobenzene	<0.037		0.037	0.012	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.0073	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
N-Nitrosodiphenylamine	<0.19		0.19	0.022	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Pentachlorophenol	<0.75		0.75	0.093	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Phenanthrene	<0.037		0.037	0.0081	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Phenol	<0.19		0.19	0.016	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1
Pyrene	<0.037		0.037	0.010	mg/Kg	☼	05/10/23 07:54	05/11/23 15:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*41*		*31 - 166*	*05/10/23 07:54*	*05/11/23 15:19*	*1*
Phenol-d5	*44*		*30 - 153*	*05/10/23 07:54*	*05/11/23 15:19*	*1*
Nitrobenzene-d5 (Surr)	*47*		*37 - 147*	*05/10/23 07:54*	*05/11/23 15:19*	*1*
2-Fluorobiphenyl	*56*		*43 - 145*	*05/10/23 07:54*	*05/11/23 15:19*	*1*
2,4,6-Tribromophenol	*68*		*31 - 143*	*05/10/23 07:54*	*05/11/23 15:19*	*1*
Terphenyl-d14 (Surr)	*74*		*42 - 157*	*05/10/23 07:54*	*05/11/23 15:19*	*1*

Method: SW846 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.30**	**J**	1.1	0.22	mg/Kg	☼	05/02/23 15:49	05/12/23 01:59	1
Arsenic	**8.5**		0.57	0.20	mg/Kg	☼	05/02/23 15:49	05/12/23 01:59	1
Barium	**43**	**B**	0.57	0.065	mg/Kg	☼	05/02/23 15:49	05/12/23 01:59	1
Beryllium	**0.80**	**J**	1.1	0.27	mg/Kg	☼	05/02/23 15:49	05/12/23 22:38	5
Boron	**14**		14	1.3	mg/Kg	☼	05/02/23 15:49	05/12/23 22:38	5
Cadmium	**0.071**	**J B**	0.11	0.021	mg/Kg	☼	05/02/23 15:49	05/12/23 01:59	1
Calcium	**67000**	**B**	57	9.7	mg/Kg	☼	05/02/23 15:49	05/12/23 22:38	5
Chromium	**16**		0.57	0.28	mg/Kg	☼	05/02/23 15:49	05/12/23 01:59	1
Cobalt	**12**		0.29	0.075	mg/Kg	☼	05/02/23 15:49	05/12/23 01:59	1
Copper	**23**		0.57	0.16	mg/Kg	☼	05/02/23 15:49	05/12/23 01:59	1
Iron	**23000**	**B**	57	30	mg/Kg	☼	05/02/23 15:49	05/12/23 22:38	5
Lead	**13**		0.29	0.13	mg/Kg	☼	05/02/23 15:49	05/12/23 01:59	1
Magnesium	**30000**	**B**	29	14	mg/Kg	☼	05/02/23 15:49	05/12/23 22:38	5
Manganese	**430**	**B**	2.9	0.42	mg/Kg	☼	05/02/23 15:49	05/12/23 22:38	5
Nickel	**32**		0.57	0.17	mg/Kg	☼	05/02/23 15:49	05/12/23 01:59	1
Potassium	**2200**		29	10	mg/Kg	☼	05/02/23 15:49	05/12/23 01:59	1
Selenium	<2.9		2.9	1.7	mg/Kg	☼	05/02/23 15:49	05/12/23 22:38	5
Silver	<0.29		0.29	0.074	mg/Kg	☼	05/02/23 15:49	05/12/23 01:59	1
Sodium	**1100**		57	8.5	mg/Kg	☼	05/02/23 15:49	05/12/23 01:59	1
Thallium	**0.32**	**J**	0.57	0.29	mg/Kg	☼	05/02/23 15:49	05/12/23 01:59	1
Vanadium	**20**	**B**	0.29	0.068	mg/Kg	☼	05/02/23 15:49	05/12/23 01:59	1
Zinc	**65**		1.1	0.50	mg/Kg	☼	05/02/23 15:49	05/12/23 01:59	1

Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		05/04/23 17:28	05/17/23 17:02	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/04/23 17:28	05/17/23 17:02	1
Iron	<0.40		0.40	0.20	mg/L		05/04/23 17:28	05/17/23 17:02	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/04/23 17:28	05/17/23 17:02	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233041-1

Client Sample ID: 2233V3-1-B176-2
Date Collected: 04/28/23 10:10
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-8
Matrix: Solid
Percent Solids: 85.4

Method: SW846 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**3.4**		0.025	0.010	mg/L		05/04/23 17:28	05/17/23 17:02	1
Nickel	<0.025		0.025	0.010	mg/L		05/04/23 17:28	05/17/23 17:02	1

Method: SW846 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.070**		0.050	0.010	mg/L		05/03/23 17:48	05/16/23 21:41	1
Barium	**0.31**	**J**	0.50	0.050	mg/L		05/03/23 17:48	05/16/23 21:41	1
Beryllium	**0.0048**		0.0040	0.0040	mg/L		05/03/23 17:48	05/16/23 21:41	1
Boron	**0.10**		0.10	0.050	mg/L		05/03/23 17:48	05/16/23 21:41	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/03/23 17:48	05/16/23 21:41	1
Calcium	**39**		2.5	0.50	mg/L		05/03/23 17:48	05/16/23 21:41	1
Chromium	**0.096**		0.025	0.010	mg/L		05/03/23 17:48	05/16/23 21:41	1
Cobalt	**0.045**		0.025	0.010	mg/L		05/03/23 17:48	05/16/23 21:41	1
Iron	**120**		0.40	0.20	mg/L		05/03/23 17:48	05/16/23 21:41	1
Lead	**0.058**		0.0075	0.0075	mg/L		05/03/23 17:48	05/16/23 21:41	1
Manganese	**0.52**		0.025	0.010	mg/L		05/03/23 17:48	05/16/23 21:41	1
Nickel	**0.15**		0.025	0.010	mg/L		05/03/23 17:48	05/16/23 21:41	1
Potassium	**17**		2.5	0.50	mg/L		05/03/23 17:48	05/16/23 21:41	1
Selenium	<0.050		0.050	0.020	mg/L		05/03/23 17:48	05/16/23 21:41	1
Silver	<0.025		0.025	0.010	mg/L		05/03/23 17:48	05/16/23 21:41	1
Zinc	**0.34**	**J**	0.50	0.020	mg/L		05/03/23 17:48	05/16/23 21:41	1

Method: SW846 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		05/04/23 17:28	05/08/23 17:44	1

Method: SW846 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/03/23 17:48	05/05/23 00:01	1
Thallium	**0.0022**		0.0020	0.0020	mg/L		05/03/23 17:48	05/05/23 00:01	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/11/23 11:40	05/12/23 11:00	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.020**		0.018	0.0095	mg/Kg	☼	05/11/23 16:00	05/12/23 07:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.28		0.28	0.14	mg/Kg	☼	05/04/23 08:20	05/04/23 10:10	1
pH (SW846 9045D)	**7.8**		0.2	0.2	SU			05/04/23 17:54	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233041-1

Client Sample ID: 2233V3-1-B176-2 Dup

Date Collected: 04/28/23 10:20
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-9

Matrix: Solid
Percent Solids: 85.3

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00061	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00082	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
1,1-Dichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
1,1-Dichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
1,2-Dichloropropane	<0.0019		0.0019	0.00049	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00067	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
2-Butanone (MEK)	<0.0048		0.0048	0.0021	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Acetone	<0.019		0.019	0.0083	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Bromoform	<0.0019		0.0019	0.00056	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Carbon disulfide	<0.0048		0.0048	0.00099	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Carbon tetrachloride	<0.0019		0.0019	0.00055	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Chlorobenzene	<0.0019		0.0019	0.00070	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Chloroethane	<0.0048		0.0048	0.0014	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Chloroform	<0.0019		0.0019	0.00066	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00053	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00057	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Dibromochloromethane	<0.0019		0.0019	0.00062	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Ethylbenzene	<0.0019		0.0019	0.00091	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00056	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Styrene	<0.0019		0.0019	0.00057	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Tetrachloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Toluene	**0.00099**	**J**	0.0019	0.00048	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00084	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00067	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Trichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Vinyl chloride	<0.0019		0.0019	0.00084	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1
Xylenes, Total	<0.0038		0.0038	0.00061	mg/Kg	☼	04/29/23 13:30	05/03/23 11:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*124*		*70 - 134*	*04/29/23 13:30*	*05/03/23 11:46*	*1*
4-Bromofluorobenzene (Surr)	*103*		*75 - 131*	*04/29/23 13:30*	*05/03/23 11:46*	*1*
Dibromofluoromethane	*128*	*S1+*	*75 - 126*	*04/29/23 13:30*	*05/03/23 11:46*	*1*
Toluene-d8 (Surr)	*109*		*75 - 124*	*04/29/23 13:30*	*05/03/23 11:46*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.027	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
1,2-Dichlorobenzene	<0.19		0.19	0.015	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
1,3-Dichlorobenzene	<0.19		0.19	0.017	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
1,4-Dichlorobenzene	<0.19		0.19	0.018	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.027	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233041-1

Client Sample ID: 2233V3-1-B176-2 Dup
Date Collected: 04/28/23 10:20
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-9
Matrix: Solid
Percent Solids: 85.3

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.37		0.37	0.014	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
2,4,6-Trichlorophenol	<0.37		0.37	0.013	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
2,4-Dichlorophenol	<0.37		0.37	0.013	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
2,4-Dimethylphenol	<0.37		0.37	0.084	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
2,4-Dinitrophenol	<0.76		0.76	0.22	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
2,4-Dinitrotoluene	<0.19		0.19	0.021	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
2,6-Dinitrotoluene	<0.19		0.19	0.013	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
2-Chloronaphthalene	<0.19		0.19	0.014	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
2-Chlorophenol	<0.19		0.19	0.012	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
2-Methylnaphthalene	<0.076		0.076	0.0076	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
2-Methylphenol	<0.19		0.19	0.020	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
2-Nitroaniline	<0.19		0.19	0.020	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
2-Nitrophenol	<0.37		0.37	0.026	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
3 & 4 Methylphenol	<0.19		0.19	0.028	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.031	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
3-Nitroaniline	<0.37		0.37	0.017	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.21	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.026	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
4-Chloro-3-methylphenol	<0.37		0.37	0.015	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
4-Chloroaniline	<0.76		0.76	0.40	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
4-Nitroaniline	<0.37		0.37	0.028	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
4-Nitrophenol	<0.76		0.76	0.14	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Acenaphthene	<0.037		0.037	0.0077	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Acenaphthylene	<0.037		0.037	0.0064	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Anthracene	<0.037		0.037	0.0077	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Benzo[a]anthracene	<0.037		0.037	0.0080	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Benzo[a]pyrene	<0.037		0.037	0.036	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Benzo[b]fluoranthene	<0.037		0.037	0.036	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Benzo[g,h,i]perylene	<0.037		0.037	0.0082	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Benzo[k]fluoranthene	<0.037		0.037	0.014	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.014	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.017	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.15	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Butyl benzyl phthalate	<0.19		0.19	0.019	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Carbazole	<0.19		0.19	0.015	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Chrysene	<0.037		0.037	0.0099	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Dibenz(a,h)anthracene	<0.037		0.037	0.037	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Dibenzofuran	<0.19		0.19	0.013	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Diethyl phthalate	<0.19		0.19	0.017	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Dimethyl phthalate	<0.19		0.19	0.0082	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Di-n-butyl phthalate	<0.19		0.19	0.012	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Di-n-octyl phthalate	<0.37		0.37	0.26	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Fluoranthene	<0.037		0.037	0.0088	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Fluorene	<0.037		0.037	0.011	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Hexachlorobenzene	<0.076		0.076	0.0072	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Hexachlorobutadiene	<0.19		0.19	0.021	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Hexachlorocyclopentadiene	<0.76		0.76	0.40	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Hexachloroethane	<0.19		0.19	0.019	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1

Client Sample ID: 2233V3-1-B176-2 Dup
Date Collected: 04/28/23 10:20
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-9
Matrix: Solid
Percent Solids: 85.3

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.037	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Isophorone	<0.19		0.19	0.019	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Naphthalene	<0.037		0.037	0.0068	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Nitrobenzene	<0.037		0.037	0.012	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.0074	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
N-Nitrosodiphenylamine	<0.19		0.19	0.022	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Pentachlorophenol	<0.76		0.76	0.094	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Phenanthrene	<0.037		0.037	0.0082	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Phenol	<0.19		0.19	0.016	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1
Pyrene	<0.037		0.037	0.010	mg/Kg	☼	05/10/23 07:54	05/11/23 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*57*		*31 - 166*	*05/10/23 07:54*	*05/11/23 15:43*	*1*
Phenol-d5	*60*		*30 - 153*	*05/10/23 07:54*	*05/11/23 15:43*	*1*
Nitrobenzene-d5 (Surr)	*64*		*37 - 147*	*05/10/23 07:54*	*05/11/23 15:43*	*1*
2-Fluorobiphenyl	*81*		*43 - 145*	*05/10/23 07:54*	*05/11/23 15:43*	*1*
2,4,6-Tribromophenol	*81*		*31 - 143*	*05/10/23 07:54*	*05/11/23 15:43*	*1*
Terphenyl-d14 (Surr)	*90*		*42 - 157*	*05/10/23 07:54*	*05/11/23 15:43*	*1*

Method: SW846 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	05/02/23 15:49	05/12/23 02:02	1
Arsenic	**7.5**		0.58	0.20	mg/Kg	☼	05/02/23 15:49	05/12/23 02:02	1
Barium	**48**	**B**	0.58	0.066	mg/Kg	☼	05/02/23 15:49	05/12/23 02:02	1
Beryllium	**0.61**		0.47	0.11	mg/Kg	☼	05/02/23 15:49	05/12/23 22:42	2
Boron	**13**		5.8	0.54	mg/Kg	☼	05/02/23 15:49	05/12/23 22:42	2
Cadmium	**0.087**	**J B**	0.12	0.021	mg/Kg	☼	05/02/23 15:49	05/12/23 02:02	1
Calcium	**58000**	**B**	23	3.9	mg/Kg	☼	05/02/23 15:49	05/12/23 22:42	2
Chromium	**16**		0.58	0.29	mg/Kg	☼	05/02/23 15:49	05/12/23 02:02	1
Cobalt	**13**		0.29	0.076	mg/Kg	☼	05/02/23 15:49	05/12/23 02:02	1
Copper	**23**		0.58	0.16	mg/Kg	☼	05/02/23 15:49	05/12/23 02:02	1
Iron	**21000**	**B**	23	12	mg/Kg	☼	05/02/23 15:49	05/12/23 22:42	2
Lead	**14**		0.29	0.13	mg/Kg	☼	05/02/23 15:49	05/12/23 02:02	1
Magnesium	**27000**	**B**	12	5.8	mg/Kg	☼	05/02/23 15:49	05/12/23 22:42	2
Manganese	**430**	**B**	1.2	0.17	mg/Kg	☼	05/02/23 15:49	05/12/23 22:42	2
Nickel	**34**		0.58	0.17	mg/Kg	☼	05/02/23 15:49	05/12/23 02:02	1
Potassium	**2200**		29	10	mg/Kg	☼	05/02/23 15:49	05/12/23 02:02	1
Selenium	**0.81**	**J**	1.2	0.68	mg/Kg	☼	05/02/23 15:49	05/12/23 22:42	2
Silver	<0.29		0.29	0.075	mg/Kg	☼	05/02/23 15:49	05/12/23 02:02	1
Sodium	**1100**		58	8.6	mg/Kg	☼	05/02/23 15:49	05/12/23 02:02	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	05/02/23 15:49	05/12/23 02:02	1
Vanadium	**21**	**B**	0.29	0.069	mg/Kg	☼	05/02/23 15:49	05/12/23 02:02	1
Zinc	**64**		1.2	0.51	mg/Kg	☼	05/02/23 15:49	05/12/23 02:02	1

Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		05/04/23 17:28	05/17/23 16:16	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/04/23 17:28	05/17/23 16:16	1
Chromium	<0.025		0.025	0.010	mg/L		05/04/23 17:28	05/17/23 16:16	1
Iron	<0.40		0.40	0.20	mg/L		05/04/23 17:28	05/17/23 16:16	1

Client Sample ID: 2233V3-1-B176-2 Dup

Date Collected: 04/28/23 10:20
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-9

Matrix: Solid
Percent Solids: 85.3

Method: SW846 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		05/04/23 17:28	05/17/23 16:16	1
Manganese	**0.82**		0.025	0.010	mg/L		05/04/23 17:28	05/17/23 16:16	1
Nickel	<0.025		0.025	0.010	mg/L		05/04/23 17:28	05/17/23 16:16	1

Method: SW846 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.13**		0.050	0.010	mg/L		05/03/23 17:48	05/16/23 21:44	1
Barium	**0.68**		0.50	0.050	mg/L		05/03/23 17:48	05/16/23 21:44	1
Beryllium	**0.011**		0.0040	0.0040	mg/L		05/03/23 17:48	05/16/23 21:44	1
Boron	**0.23**		0.10	0.050	mg/L		05/03/23 17:48	05/16/23 21:44	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/03/23 17:48	05/16/23 21:44	1
Calcium	**74**		2.5	0.50	mg/L		05/03/23 17:48	05/16/23 21:44	1
Chromium	**0.21**		0.025	0.010	mg/L		05/03/23 17:48	05/16/23 21:44	1
Cobalt	**0.10**		0.025	0.010	mg/L		05/03/23 17:48	05/16/23 21:44	1
Iron	**240**		0.40	0.20	mg/L		05/03/23 17:48	05/16/23 21:44	1
Lead	**0.13**		0.0075	0.0075	mg/L		05/03/23 17:48	05/16/23 21:44	1
Manganese	**1.1**		0.025	0.010	mg/L		05/03/23 17:48	05/16/23 21:44	1
Nickel	**0.32**		0.025	0.010	mg/L		05/03/23 17:48	05/16/23 21:44	1
Potassium	**40**		2.5	0.50	mg/L		05/03/23 17:48	05/16/23 21:44	1
Selenium	<0.050		0.050	0.020	mg/L		05/03/23 17:48	05/16/23 21:44	1
Silver	<0.025		0.025	0.010	mg/L		05/03/23 17:48	05/16/23 21:44	1
Zinc	**0.76**		0.50	0.020	mg/L		05/03/23 17:48	05/16/23 21:44	1

Method: SW846 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		05/04/23 17:28	05/08/23 17:11	1

Method: SW846 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/03/23 17:48	05/05/23 00:03	1
Thallium	**0.0046**		0.0020	0.0020	mg/L		05/03/23 17:48	05/05/23 00:03	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/11/23 11:40	05/12/23 11:03	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.020**		0.018	0.0096	mg/Kg	☼	05/11/23 16:00	05/12/23 07:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.24		0.24	0.12	mg/Kg	☼	05/04/23 08:21	05/04/23 10:12	1
pH (SW846 9045D)	**7.9**		0.2	0.2	SU			05/04/23 17:57	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233041-1

Client Sample ID: 2233V3-1-B176-3
Date Collected: 04/28/23 10:30
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-10
Matrix: Solid
Percent Solids: 84.7

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00079	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
1,2-Dichloropropane	<0.0018		0.0018	0.00048	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00065	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Acetone	<0.018		0.018	0.0080	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Bromodichloromethane	<0.0018		0.0018	0.00038	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Bromoform	<0.0018		0.0018	0.00054	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Carbon disulfide	<0.0046		0.0046	0.00096	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Chlorobenzene	<0.0018		0.0018	0.00068	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Chloroform	<0.0018		0.0018	0.00064	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Chloromethane	<0.0046		0.0046	0.0019	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00052	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00056	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Ethylbenzene	<0.0018		0.0018	0.00088	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Styrene	<0.0018		0.0018	0.00056	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Tetrachloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Toluene	**0.00064**	**J**	0.0018	0.00047	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00082	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00065	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Vinyl chloride	<0.0018		0.0018	0.00082	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	04/29/23 13:30	05/03/23 12:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*123*		*70 - 134*	*04/29/23 13:30*	*05/03/23 12:10*	*1*
4-Bromofluorobenzene (Surr)	*118*		*75 - 131*	*04/29/23 13:30*	*05/03/23 12:10*	*1*
Dibromofluoromethane	*126*		*75 - 126*	*04/29/23 13:30*	*05/03/23 12:10*	*1*
Toluene-d8 (Surr)	*116*		*75 - 124*	*04/29/23 13:30*	*05/03/23 12:10*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.027	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
1,2-Dichlorobenzene	<0.19		0.19	0.015	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
1,3-Dichlorobenzene	<0.19		0.19	0.017	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
1,4-Dichlorobenzene	<0.19		0.19	0.018	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.027	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233041-1

Client Sample ID: 2233V3-1-B176-3
Date Collected: 04/28/23 10:30
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-10
Matrix: Solid
Percent Solids: 84.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.37		0.37	0.014	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
2,4,6-Trichlorophenol	<0.37		0.37	0.013	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
2,4-Dichlorophenol	<0.37		0.37	0.013	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
2,4-Dimethylphenol	<0.37		0.37	0.083	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
2,4-Dinitrophenol	<0.75		0.75	0.21	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
2,4-Dinitrotoluene	<0.19		0.19	0.021	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
2,6-Dinitrotoluene	<0.19		0.19	0.013	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
2-Chloronaphthalene	<0.19		0.19	0.014	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
2-Chlorophenol	<0.19		0.19	0.012	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
2-Methylnaphthalene	<0.075		0.075	0.0075	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
2-Methylphenol	<0.19		0.19	0.020	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
2-Nitroaniline	<0.19		0.19	0.020	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
2-Nitrophenol	<0.37		0.37	0.025	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
3 & 4 Methylphenol	<0.19		0.19	0.027	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.030	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
3-Nitroaniline	<0.37		0.37	0.017	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.21	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.025	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
4-Chloro-3-methylphenol	<0.37		0.37	0.014	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
4-Chloroaniline	<0.75		0.75	0.39	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
4-Nitroaniline	<0.37		0.37	0.027	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
4-Nitrophenol	<0.75		0.75	0.14	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Acenaphthene	<0.037		0.037	0.0076	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Acenaphthylene	<0.037		0.037	0.0063	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Anthracene	<0.037		0.037	0.0076	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Benzo[a]anthracene	**0.015**	**J**	0.037	0.0079	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Benzo[a]pyrene	<0.037		0.037	0.036	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Benzo[b]fluoranthene	<0.037		0.037	0.035	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Benzo[g,h,i]perylene	<0.037		0.037	0.0080	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Benzo[k]fluoranthene	<0.037		0.037	0.014	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.014	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.017	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.15	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Butyl benzyl phthalate	<0.19		0.19	0.018	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Carbazole	<0.19		0.19	0.015	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Chrysene	**0.013**	**J**	0.037	0.0098	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Dibenz(a,h)anthracene	<0.037		0.037	0.037	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Dibenzofuran	<0.19		0.19	0.013	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Diethyl phthalate	<0.19		0.19	0.017	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Dimethyl phthalate	<0.19		0.19	0.0081	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Di-n-butyl phthalate	<0.19		0.19	0.012	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Di-n-octyl phthalate	<0.37		0.37	0.26	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Fluoranthene	<0.037		0.037	0.0086	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Fluorene	<0.037		0.037	0.011	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Hexachlorobenzene	<0.075		0.075	0.0071	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Hexachlorobutadiene	<0.19		0.19	0.021	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Hexachlorocyclopentadiene	<0.75		0.75	0.39	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Hexachloroethane	<0.19		0.19	0.019	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1

Client Sample ID: 2233V3-1-B176-3
Date Collected: 04/28/23 10:30
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-10
Matrix: Solid
Percent Solids: 84.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.036	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Isophorone	<0.19		0.19	0.019	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Naphthalene	<0.037		0.037	0.0067	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Nitrobenzene	<0.037		0.037	0.012	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.0073	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
N-Nitrosodiphenylamine	<0.19		0.19	0.022	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Pentachlorophenol	<0.75		0.75	0.093	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Phenanthrene	<0.037		0.037	0.0081	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Phenol	<0.19		0.19	0.016	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1
Pyrene	<0.037		0.037	0.010	mg/Kg	☼	05/10/23 07:54	05/11/23 16:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*37*		*31 - 166*	*05/10/23 07:54*	*05/11/23 16:08*	*1*
Phenol-d5	*42*		*30 - 153*	*05/10/23 07:54*	*05/11/23 16:08*	*1*
Nitrobenzene-d5 (Surr)	*38*		*37 - 147*	*05/10/23 07:54*	*05/11/23 16:08*	*1*
2-Fluorobiphenyl	*47*		*43 - 145*	*05/10/23 07:54*	*05/11/23 16:08*	*1*
2,4,6-Tribromophenol	*63*		*31 - 143*	*05/10/23 07:54*	*05/11/23 16:08*	*1*
Terphenyl-d14 (Surr)	*64*		*42 - 157*	*05/10/23 07:54*	*05/11/23 16:08*	*1*

Method: SW846 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.56**	**J**	1.2	0.23	mg/Kg	☼	05/02/23 15:49	05/12/23 02:06	1
Arsenic	**5.7**		0.58	0.20	mg/Kg	☼	05/02/23 15:49	05/12/23 02:06	1
Barium	**40**	**B**	0.58	0.066	mg/Kg	☼	05/02/23 15:49	05/12/23 02:06	1
Beryllium	**0.61**		0.46	0.11	mg/Kg	☼	05/02/23 15:49	05/12/23 22:45	2
Boron	**13**		5.8	0.54	mg/Kg	☼	05/02/23 15:49	05/12/23 22:45	2
Cadmium	**0.043**	**J B**	0.12	0.021	mg/Kg	☼	05/02/23 15:49	05/12/23 02:06	1
Calcium	**55000**	**B**	23	3.9	mg/Kg	☼	05/02/23 15:49	05/12/23 22:45	2
Chromium	**17**		0.58	0.29	mg/Kg	☼	05/02/23 15:49	05/12/23 02:06	1
Cobalt	**11**		0.29	0.076	mg/Kg	☼	05/02/23 15:49	05/12/23 02:06	1
Copper	**22**		0.58	0.16	mg/Kg	☼	05/02/23 15:49	05/12/23 02:06	1
Iron	**20000**	**B**	23	12	mg/Kg	☼	05/02/23 15:49	05/12/23 22:45	2
Lead	**12**		0.29	0.13	mg/Kg	☼	05/02/23 15:49	05/12/23 02:06	1
Magnesium	**27000**	**B**	12	5.8	mg/Kg	☼	05/02/23 15:49	05/12/23 22:45	2
Manganese	**360**	**B**	1.2	0.17	mg/Kg	☼	05/02/23 15:49	05/12/23 22:45	2
Nickel	**27**		0.58	0.17	mg/Kg	☼	05/02/23 15:49	05/12/23 02:06	1
Potassium	**2400**		29	10	mg/Kg	☼	05/02/23 15:49	05/12/23 02:06	1
Selenium	**1.4**		1.2	0.68	mg/Kg	☼	05/02/23 15:49	05/12/23 22:45	2
Silver	<0.29		0.29	0.075	mg/Kg	☼	05/02/23 15:49	05/12/23 02:06	1
Sodium	**550**		58	8.6	mg/Kg	☼	05/02/23 15:49	05/12/23 02:06	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	05/02/23 15:49	05/12/23 02:06	1
Vanadium	**21**	**B**	0.29	0.069	mg/Kg	☼	05/02/23 15:49	05/12/23 02:06	1
Zinc	**62**		1.2	0.51	mg/Kg	☼	05/02/23 15:49	05/12/23 02:06	1

Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/04/23 17:28	05/17/23 17:05	1
Chromium	<0.025		0.025	0.010	mg/L		05/04/23 17:28	05/17/23 17:05	1
Iron	<0.40		0.40	0.20	mg/L		05/04/23 17:28	05/17/23 17:05	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/04/23 17:28	05/17/23 17:05	1

Client Sample ID: 2233V3-1-B176-3
Date Collected: 04/28/23 10:30
Date Received: 04/28/23 15:48

Lab Sample ID: 500-233041-10
Matrix: Solid
Percent Solids: 84.7

Method: SW846 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**3.5**		0.025	0.010	mg/L		05/04/23 17:28	05/17/23 17:05	1
Nickel	**0.029**		0.025	0.010	mg/L		05/04/23 17:28	05/17/23 17:05	1

Method: SW846 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.049**	**J**	0.050	0.010	mg/L		05/03/23 17:48	05/16/23 21:48	1
Barium	**0.32**	**J**	0.50	0.050	mg/L		05/03/23 17:48	05/16/23 21:48	1
Beryllium	**0.0055**		0.0040	0.0040	mg/L		05/03/23 17:48	05/16/23 21:48	1
Boron	**0.16**		0.10	0.050	mg/L		05/03/23 17:48	05/16/23 21:48	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/03/23 17:48	05/16/23 21:48	1
Calcium	**53**		2.5	0.50	mg/L		05/03/23 17:48	05/16/23 21:48	1
Chromium	**0.12**		0.025	0.010	mg/L		05/03/23 17:48	05/16/23 21:48	1
Cobalt	**0.029**		0.025	0.010	mg/L		05/03/23 17:48	05/16/23 21:48	1
Iron	**110**		0.40	0.20	mg/L		05/03/23 17:48	05/16/23 21:48	1
Lead	**0.050**		0.0075	0.0075	mg/L		05/03/23 17:48	05/16/23 21:48	1
Manganese	**0.50**		0.025	0.010	mg/L		05/03/23 17:48	05/16/23 21:48	1
Nickel	**0.12**		0.025	0.010	mg/L		05/03/23 17:48	05/16/23 21:48	1
Potassium	**27**		2.5	0.50	mg/L		05/03/23 17:48	05/16/23 21:48	1
Selenium	<0.050		0.050	0.020	mg/L		05/03/23 17:48	05/16/23 21:48	1
Silver	<0.025		0.025	0.010	mg/L		05/03/23 17:48	05/16/23 21:48	1
Zinc	**0.33**	**J**	0.50	0.020	mg/L		05/03/23 17:48	05/16/23 21:48	1

Method: SW846 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		05/04/23 17:28	05/08/23 17:46	1

Method: SW846 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/03/23 17:48	05/05/23 00:11	1
Thallium	**0.0022**		0.0020	0.0020	mg/L		05/03/23 17:48	05/05/23 00:11	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/11/23 11:40	05/12/23 11:05	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.023**		0.019	0.0098	mg/Kg	☼	05/11/23 16:00	05/12/23 07:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.25		0.25	0.13	mg/Kg	☼	05/04/23 08:22	05/04/23 10:14	1
pH (SW846 9045D)	**7.9**		0.2	0.2	SU			05/04/23 18:01	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

GC/MS Semi VOA

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233041-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-23 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

ANDREWS ENGINEERING

CHAIN OF CUSTODY RECORD

Client Contact	Laboratory		Project Name: AE8 — 010A	COC No: 1 of 3
Andrews Engineering, Inc	Lab	Eurofins - Chicago	Project No: PTB/WO #: 195-002/010A	Lab Job No.: 500-233041
3300 Ginger Creek Drive	Address	2417 Bond Street		
Springfield, IL 62711		University Park, IL 60484	TAT [X] 15 BD [ ] 10 BD [ ] 5 BD [ ] 2 BD ____ Other	
217-787-2334	Phone	708-534-5200		Sample Temp: 2.8-7.2, 5.5-7.5
Contact: Colleen Grey	Contact	Jodie Bracken		
email: cgrey@andrews-eng.com	email	Jodie.Bracken@ET.EurofinsUS.com	Sampler: J. Weisbrodt	

500-233041 COC

Special Instructions:

See Table 2 for complete parameter lists and minimum reporting limits

* If Total RCRA metal (mg/kg) result exceeds the Soil Toxicity Characteristics Limit (Table 3), run TCLP for that specific RCRA metal

** If SPLP result exceeds Class I Standard, run TCLP for that specific parameter

*** If total cyanide exceeds MAC, run ASTM D3987 (Neutral Leach) cyanide

Matrix Key:

- W Water
- S Soil
- SL Sludge
- S Sediment
- L Leachate
- DW Drinking Water
- OL Oil
- O Other

ANALYSES

Lab ID	Sample ID	Sample Date	Sample Time	Matrix	VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization				Comments
1	2233V3-1-B180	4/28/23	0900	S	X	X					X	X	X	X	X					
2	2233V3-1-B179		0910																	
3	2233V3-1-B178		0920																	
4	2233V3-1-B177-1		0930																	
5	2233V3-1-B177-2		0940																	
6	2233V3-1-B177-3		0950																	
7	2233V3-1-B176-1		1000																	
8	2233V3-1-B176-2		1010																	
9	2233V3-1-B176-2 DUP		1020																	
10	2233V3-1-B176-3		1030																	
11	2233V3-1-B175-1	↓	1040	↓	↓	↓					↓	↓	↓	↓	↓					

Relinquished by	Date/Time	Received by	Date/Time
Aaron Ulrich (signature)	4/28/23 1450	D. J. Ellias	4/28/23 1450
D. J. Ellias	4/28/23 1548	(signature)	4/28/23 1548

T:\IDOT Templates\COCs\IDOT COC Template (Eurofins).xlsx

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Colleen Grey
Andrews Engineering Inc.
3300 Ginger Creek Drive
Springfield, Illinois 62711

Generated 5/17/2023 6:17:01 PM

JOB DESCRIPTION

IDOT - AE8-010

JOB NUMBER

500-233039-1

Eurofins Chicago
2417 Bond Street
University Park IL 60484

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

Authorization

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5/17/2023 6:17:01 PM

Authorized for release by
Jodie Bracken, Project Management Assistant II
Jodie.Bracken@et.eurofinsus.com
(708)534-5200

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233039-1

Client Sample ID: 2233V3-1-B184
Date Collected: 04/27/23 13:50
Date Received: 04/28/23 12:10

Lab Sample ID: 500-233039-11
Matrix: Solid
Percent Solids: 85.8

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00079	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
2-Butanone (MEK)	<0.0046	*1	0.0046	0.0020	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
2-Hexanone	<0.0046	*1	0.0046	0.0014	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
4-Methyl-2-pentanone (MIBK)	<0.0046	*1	0.0046	0.0014	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Acetone	**0.014**	**J**	0.018	0.0080	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Bromoform	<0.0018		0.0018	0.00054	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Carbon disulfide	<0.0046		0.0046	0.00095	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Chlorobenzene	<0.0018		0.0018	0.00068	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Chloroform	<0.0018		0.0018	0.00064	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Chloromethane	<0.0046	*+	0.0046	0.0018	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Ethylbenzene	<0.0018		0.0018	0.00088	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Tetrachloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Toluene	**0.00082**	**J**	0.0018	0.00046	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	04/29/23 06:20	05/03/23 03:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 134*	*04/29/23 06:20*	*05/03/23 03:27*	*1*
4-Bromofluorobenzene (Surr)	*92*		*75 - 131*	*04/29/23 06:20*	*05/03/23 03:27*	*1*
Dibromofluoromethane	*100*		*75 - 126*	*04/29/23 06:20*	*05/03/23 03:27*	*1*
Toluene-d8 (Surr)	*89*		*75 - 124*	*04/29/23 06:20*	*05/03/23 03:27*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.027	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
1,2-Dichlorobenzene	<0.19		0.19	0.016	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
1,3-Dichlorobenzene	<0.19		0.19	0.017	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
1,4-Dichlorobenzene	<0.19		0.19	0.018	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.027	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233039-1

Client Sample ID: 2233V3-1-B184
Date Collected: 04/27/23 13:50
Date Received: 04/28/23 12:10

Lab Sample ID: 500-233039-11
Matrix: Solid
Percent Solids: 85.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.38		0.38	0.014	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
2,4,6-Trichlorophenol	<0.38		0.38	0.013	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
2,4-Dichlorophenol	<0.38		0.38	0.013	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
2,4-Dimethylphenol	<0.38		0.38	0.085	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
2,4-Dinitrophenol	<0.77		0.77	0.22	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
2,4-Dinitrotoluene	<0.19		0.19	0.022	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
2,6-Dinitrotoluene	<0.19		0.19	0.013	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
2-Chloronaphthalene	<0.19		0.19	0.014	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
2-Chlorophenol	<0.19		0.19	0.012	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
2-Methylnaphthalene	<0.077		0.077	0.0077	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
2-Methylphenol	<0.19		0.19	0.020	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
2-Nitroaniline	<0.19		0.19	0.020	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
2-Nitrophenol	<0.38		0.38	0.026	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
3 & 4 Methylphenol	<0.19		0.19	0.028	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.031	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
3-Nitroaniline	<0.38		0.38	0.017	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.22	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.026	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
4-Chloro-3-methylphenol	<0.38		0.38	0.015	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
4-Chloroaniline	<0.77		0.77	0.40	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
4-Nitroaniline	<0.38		0.38	0.028	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
4-Nitrophenol	<0.77		0.77	0.14	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Acenaphthene	<0.038		0.038	0.0078	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Acenaphthylene	<0.038		0.038	0.0065	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Anthracene	<0.038		0.038	0.0078	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Benzo[a]anthracene	<0.038		0.038	0.0081	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Benzo[a]pyrene	<0.038		0.038	0.037	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Benzo[b]fluoranthene	<0.038		0.038	0.036	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Benzo[g,h,i]perylene	<0.038		0.038	0.0083	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Benzo[k]fluoranthene	<0.038		0.038	0.014	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.014	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.018	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.15	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Butyl benzyl phthalate	<0.19		0.19	0.019	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Carbazole	<0.19		0.19	0.015	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Dibenz(a,h)anthracene	<0.038		0.038	0.038	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Dibenzofuran	<0.19		0.19	0.014	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Diethyl phthalate	<0.19		0.19	0.017	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Dimethyl phthalate	<0.19		0.19	0.0083	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Di-n-butyl phthalate	<0.19		0.19	0.012	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Di-n-octyl phthalate	<0.38		0.38	0.27	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Fluoranthene	<0.038		0.038	0.0089	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Fluorene	<0.038		0.038	0.011	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Hexachlorobenzene	<0.077		0.077	0.0073	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Hexachlorobutadiene	<0.19		0.19	0.022	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Hexachlorocyclopentadiene	<0.77		0.77	0.40	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Hexachloroethane	<0.19		0.19	0.019	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233039-1

Client Sample ID: 2233V3-1-B184
Date Collected: 04/27/23 13:50
Date Received: 04/28/23 12:10

Lab Sample ID: 500-233039-11
Matrix: Solid
Percent Solids: 85.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.037	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Isophorone	<0.19		0.19	0.020	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Naphthalene	<0.038		0.038	0.0069	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Nitrobenzene	<0.038		0.038	0.012	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.0075	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
N-Nitrosodiphenylamine	<0.19		0.19	0.023	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Pentachlorophenol	<0.77		0.77	0.095	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Phenanthrene	<0.038		0.038	0.0083	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Phenol	<0.19		0.19	0.017	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1
Pyrene	<0.038		0.038	0.010	mg/Kg	☼	05/05/23 10:13	05/08/23 16:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*63*		*31 - 166*	*05/05/23 10:13*	*05/08/23 16:29*	*1*
Phenol-d5	*64*		*30 - 153*	*05/05/23 10:13*	*05/08/23 16:29*	*1*
Nitrobenzene-d5 (Surr)	*65*		*37 - 147*	*05/05/23 10:13*	*05/08/23 16:29*	*1*
2-Fluorobiphenyl	*86*		*43 - 145*	*05/05/23 10:13*	*05/08/23 16:29*	*1*
2,4,6-Tribromophenol	*77*		*31 - 143*	*05/05/23 10:13*	*05/08/23 16:29*	*1*
Terphenyl-d14 (Surr)	*91*		*42 - 157*	*05/05/23 10:13*	*05/08/23 16:29*	*1*

Method: SW846 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.38**	**J**	1.2	0.23	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Arsenic	**8.1**		0.58	0.20	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Barium	**76**		0.58	0.066	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Beryllium	**0.79**		0.23	0.054	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Boron	**7.9**		2.9	0.27	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Cadmium	<0.12		0.12	0.021	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Calcium	**32000**	**B**	12	2.0	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Chromium	**15**		0.58	0.29	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Cobalt	**13**		0.29	0.076	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Copper	**22**		0.58	0.16	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Iron	**19000**		12	6.0	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Lead	**15**		0.29	0.13	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Magnesium	**18000**		5.8	2.9	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Manganese	**540**		0.58	0.084	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Nickel	**31**		0.58	0.17	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Potassium	**1600**		29	10	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Selenium	<0.58		0.58	0.34	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Silver	**0.31**		0.29	0.075	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Sodium	**710**		58	8.6	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Vanadium	**21**		0.29	0.068	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1
Zinc	**73**		1.2	0.51	mg/Kg	☼	05/02/23 15:49	05/16/23 23:57	1

Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		05/04/23 17:27	05/09/23 00:14	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/04/23 17:27	05/09/23 00:14	1
Chromium	<0.025		0.025	0.010	mg/L		05/04/23 17:27	05/09/23 00:14	1
Iron	**0.25**	**J B**	0.40	0.20	mg/L		05/04/23 17:27	05/09/23 00:14	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233039-1

Client Sample ID: 2233V3-1-B184
Date Collected: 04/27/23 13:50
Date Received: 04/28/23 12:10

Lab Sample ID: 500-233039-11
Matrix: Solid
Percent Solids: 85.8

Method: SW846 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.010		0.0075	0.0075	mg/L		05/04/23 17:27	05/09/23 00:14	1
Manganese	7.5		0.025	0.010	mg/L		05/04/23 17:27	05/09/23 00:14	1
Nickel	0.027		0.025	0.010	mg/L		05/04/23 17:27	05/09/23 00:14	1

Method: SW846 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.078		0.050	0.010	mg/L		05/03/23 17:48	05/12/23 03:32	1
Barium	0.54		0.50	0.050	mg/L		05/03/23 17:48	05/12/23 03:32	1
Beryllium	0.0054		0.0040	0.0040	mg/L		05/03/23 17:48	05/12/23 03:32	1
Boron	0.17		0.10	0.050	mg/L		05/03/23 17:48	05/12/23 17:57	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/03/23 17:48	05/12/23 03:32	1
Calcium	37	B	2.5	0.50	mg/L		05/03/23 17:48	05/12/23 03:32	1
Chromium	0.13		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 03:32	1
Cobalt	0.062		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 03:32	1
Iron	160		0.40	0.20	mg/L		05/03/23 17:48	05/12/23 17:57	1
Lead	0.064		0.0075	0.0075	mg/L		05/03/23 17:48	05/12/23 03:32	1
Manganese	1.1		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 17:57	1
Nickel	0.19		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 03:32	1
Potassium	24		2.5	0.50	mg/L		05/03/23 17:48	05/12/23 03:32	1
Selenium	<0.050		0.050	0.020	mg/L		05/03/23 17:48	05/12/23 03:32	1
Silver	<0.025		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 03:32	1
Zinc	0.52		0.50	0.020	mg/L		05/03/23 17:48	05/12/23 03:32	1

Method: SW846 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		05/04/23 17:27	05/08/23 18:23	1

Method: SW846 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/03/23 17:48	05/04/23 23:26	1
Thallium	0.0049		0.0020	0.0020	mg/L		05/03/23 17:48	05/04/23 23:26	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/09/23 12:35	05/10/23 11:37	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032		0.019	0.0099	mg/Kg	☼	05/10/23 16:35	05/11/23 08:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.27		0.27	0.13	mg/Kg	☼	05/03/23 08:24	05/03/23 11:26	1
pH (SW846 9045D)	7.3		0.2	0.2	SU			05/04/23 16:41	1

Client Sample ID: 2233V3-1-B184 Dup

Date Collected: 04/27/23 14:00
Date Received: 04/28/23 12:10

Lab Sample ID: 500-233039-12

Matrix: Solid
Percent Solids: 81.2

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0020		0.0020	0.00066	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00084	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
1,1-Dichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
1,1-Dichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00069	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
2-Butanone (MEK)	<0.0049	*1	0.0049	0.0022	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
2-Hexanone	<0.0049	*1	0.0049	0.0015	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
4-Methyl-2-pentanone (MIBK)	<0.0049	*1	0.0049	0.0015	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Acetone	**0.011**	**J**	0.020	0.0085	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Benzene	<0.0020		0.0020	0.00050	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Bromoform	<0.0020		0.0020	0.00057	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Bromomethane	<0.0049		0.0049	0.0019	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Carbon tetrachloride	<0.0020		0.0020	0.00057	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Chlorobenzene	<0.0020		0.0020	0.00072	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Chloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Chloroform	<0.0020		0.0020	0.00068	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Chloromethane	<0.0049	*+	0.0049	0.0020	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00059	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Dibromochloromethane	<0.0020		0.0020	0.00064	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Ethylbenzene	<0.0020		0.0020	0.00094	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00058	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Styrene	<0.0020		0.0020	0.00059	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Tetrachloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Toluene	**0.0013**	**J**	0.0020	0.00050	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00087	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00069	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Trichloroethene	<0.0020		0.0020	0.00066	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Vinyl chloride	<0.0020		0.0020	0.00087	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1
Xylenes, Total	<0.0039		0.0039	0.00063	mg/Kg	☼	04/29/23 06:20	05/03/23 03:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 134*	*04/29/23 06:20*	*05/03/23 03:53*	*1*
4-Bromofluorobenzene (Surr)	*92*		*75 - 131*	*04/29/23 06:20*	*05/03/23 03:53*	*1*
Dibromofluoromethane	*97*		*75 - 126*	*04/29/23 06:20*	*05/03/23 03:53*	*1*
Toluene-d8 (Surr)	*90*		*75 - 124*	*04/29/23 06:20*	*05/03/23 03:53*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.028	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
1,2-Dichlorobenzene	<0.20		0.20	0.016	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
1,3-Dichlorobenzene	<0.20		0.20	0.018	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
1,4-Dichlorobenzene	<0.20		0.20	0.019	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.028	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233039-1

Client Sample ID: 2233V3-1-B184 Dup
Date Collected: 04/27/23 14:00
Date Received: 04/28/23 12:10

Lab Sample ID: 500-233039-12
Matrix: Solid
Percent Solids: 81.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.015	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
2,4,6-Trichlorophenol	<0.39		0.39	0.013	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
2,4-Dichlorophenol	<0.39		0.39	0.014	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
2,4-Dimethylphenol	<0.39		0.39	0.089	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
2,4-Dinitrophenol	<0.80		0.80	0.23	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
2,4-Dinitrotoluene	<0.20		0.20	0.023	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
2,6-Dinitrotoluene	<0.20		0.20	0.013	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
2-Chloronaphthalene	<0.20		0.20	0.015	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
2-Chlorophenol	<0.20		0.20	0.013	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
2-Methylnaphthalene	<0.080		0.080	0.0079	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
2-Methylphenol	<0.20		0.20	0.021	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
2-Nitroaniline	<0.20		0.20	0.021	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
2-Nitrophenol	<0.39		0.39	0.027	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
3 & 4 Methylphenol	<0.20		0.20	0.029	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.032	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
3-Nitroaniline	<0.39		0.39	0.018	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.22	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.027	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
4-Chloro-3-methylphenol	<0.39		0.39	0.015	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
4-Chloroaniline	<0.80		0.80	0.41	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
4-Nitroaniline	<0.39		0.39	0.029	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
4-Nitrophenol	<0.80		0.80	0.15	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Acenaphthene	<0.039		0.039	0.0080	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Acenaphthylene	<0.039		0.039	0.0067	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Anthracene	<0.039		0.039	0.0081	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Benzo[a]anthracene	**0.013**	**J**	0.039	0.0084	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Benzo[a]pyrene	<0.039		0.039	0.038	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Benzo[b]fluoranthene	<0.039		0.039	0.038	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Benzo[g,h,i]perylene	**0.015**	**J**	0.039	0.0086	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Benzo[k]fluoranthene	<0.039		0.039	0.015	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.015	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.018	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.15	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Butyl benzyl phthalate	<0.20		0.20	0.020	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Carbazole	<0.20		0.20	0.016	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Chrysene	<0.039		0.039	0.010	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Dibenz(a,h)anthracene	<0.039		0.039	0.039	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Dibenzofuran	<0.20		0.20	0.014	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Diethyl phthalate	<0.20		0.20	0.018	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Dimethyl phthalate	<0.20		0.20	0.0086	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Di-n-butyl phthalate	<0.20		0.20	0.013	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Di-n-octyl phthalate	<0.39		0.39	0.28	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Fluoranthene	<0.039		0.039	0.0092	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Fluorene	<0.039		0.039	0.012	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Hexachlorobenzene	<0.080		0.080	0.0076	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Hexachlorobutadiene	<0.20		0.20	0.022	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Hexachlorocyclopentadiene	<0.80		0.80	0.42	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Hexachloroethane	<0.20		0.20	0.020	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233039-1

Client Sample ID: 2233V3-1-B184 Dup

Date Collected: 04/27/23 14:00
Date Received: 04/28/23 12:10

Lab Sample ID: 500-233039-12

Matrix: Solid
Percent Solids: 81.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.039	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Isophorone	<0.20		0.20	0.020	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Naphthalene	<0.039		0.039	0.0072	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Nitrobenzene	<0.039		0.039	0.013	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.0078	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
N-Nitrosodiphenylamine	<0.20		0.20	0.023	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Pentachlorophenol	<0.80		0.80	0.099	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Phenanthrene	<0.039		0.039	0.0086	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Phenol	<0.20		0.20	0.017	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1
Pyrene	<0.039		0.039	0.011	mg/Kg	☼	05/05/23 10:13	05/08/23 16:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*56*		*31 - 166*	*05/05/23 10:13*	*05/08/23 16:54*	*1*
Phenol-d5	*59*		*30 - 153*	*05/05/23 10:13*	*05/08/23 16:54*	*1*
Nitrobenzene-d5 (Surr)	*62*		*37 - 147*	*05/05/23 10:13*	*05/08/23 16:54*	*1*
2-Fluorobiphenyl	*76*		*43 - 145*	*05/05/23 10:13*	*05/08/23 16:54*	*1*
2,4,6-Tribromophenol	*78*		*31 - 143*	*05/05/23 10:13*	*05/08/23 16:54*	*1*
Terphenyl-d14 (Surr)	*94*		*42 - 157*	*05/05/23 10:13*	*05/08/23 16:54*	*1*

Method: SW846 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.42**	**J**	1.2	0.24	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Arsenic	**11**		0.60	0.21	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Barium	**81**		0.60	0.069	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Beryllium	**0.85**		0.24	0.056	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Boron	**8.2**		3.0	0.28	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Cadmium	<0.12		0.12	0.022	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Calcium	**33000**	**B**	12	2.1	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Chromium	**16**		0.60	0.30	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Cobalt	**13**		0.30	0.079	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Copper	**24**		0.60	0.17	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Iron	**23000**		12	6.3	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Lead	**17**		0.30	0.14	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Magnesium	**21000**		6.0	3.0	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Manganese	**440**		0.60	0.088	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Nickel	**32**		0.60	0.18	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Potassium	**1600**		30	11	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Selenium	**0.44**	**J**	0.60	0.36	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Silver	**0.27**	**J**	0.30	0.078	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Sodium	**800**		60	8.9	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Vanadium	**24**		0.30	0.071	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1
Zinc	**77**		1.2	0.53	mg/Kg	☼	05/02/23 15:49	05/17/23 00:01	1

Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		05/04/23 17:27	05/09/23 00:18	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/04/23 17:27	05/09/23 00:18	1
Chromium	<0.025		0.025	0.010	mg/L		05/04/23 17:27	05/09/23 00:18	1
Iron	**0.58**	**B**	0.40	0.20	mg/L		05/04/23 17:27	05/09/23 00:18	1

Client Sample ID: 2233V3-1-B184 Dup

Date Collected: 04/27/23 14:00
Date Received: 04/28/23 12:10

Lab Sample ID: 500-233039-12

Matrix: Solid
Percent Solids: 81.2

Method: SW846 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		05/04/23 17:27	05/09/23 00:18	1
Manganese	**10**		0.025	0.010	mg/L		05/04/23 17:27	05/09/23 00:18	1
Nickel	**0.018**	**J**	0.025	0.010	mg/L		05/04/23 17:27	05/09/23 00:18	1

Method: SW846 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.060**		0.050	0.010	mg/L		05/03/23 17:48	05/12/23 03:35	1
Barium	**0.58**		0.50	0.050	mg/L		05/03/23 17:48	05/12/23 03:35	1
Beryllium	**0.0047**		0.0040	0.0040	mg/L		05/03/23 17:48	05/12/23 03:35	1
Boron	**0.15**		0.10	0.050	mg/L		05/03/23 17:48	05/12/23 18:00	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/03/23 17:48	05/12/23 03:35	1
Calcium	**32**	**B**	2.5	0.50	mg/L		05/03/23 17:48	05/12/23 03:35	1
Chromium	**0.12**		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 03:35	1
Cobalt	**0.062**		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 03:35	1
Iron	**140**		0.40	0.20	mg/L		05/03/23 17:48	05/12/23 18:00	1
Lead	**0.055**		0.0075	0.0075	mg/L		05/03/23 17:48	05/12/23 03:35	1
Manganese	**1.2**		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 18:00	1
Nickel	**0.17**		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 03:35	1
Potassium	**20**		2.5	0.50	mg/L		05/03/23 17:48	05/12/23 03:35	1
Selenium	<0.050		0.050	0.020	mg/L		05/03/23 17:48	05/12/23 03:35	1
Silver	<0.025		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 03:35	1
Zinc	**0.45**	**J**	0.50	0.020	mg/L		05/03/23 17:48	05/12/23 03:35	1

Method: SW846 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		05/04/23 17:27	05/08/23 18:29	1

Method: SW846 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/03/23 17:48	05/04/23 23:28	1
Thallium	**0.0040**		0.0020	0.0020	mg/L		05/03/23 17:48	05/04/23 23:28	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/09/23 12:35	05/10/23 11:39	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.025**		0.020	0.011	mg/Kg	☼	05/10/23 16:35	05/11/23 09:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**0.14**	**J**	0.26	0.13	mg/Kg	☼	05/03/23 08:25	05/03/23 11:28	1
pH (SW846 9045D)	**7.5**		0.2	0.2	SU			05/04/23 16:43	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233039-1

Client Sample ID: 2233V3-1-B183
Date Collected: 04/27/23 14:10
Date Received: 04/28/23 12:10

Lab Sample ID: 500-233039-13
Matrix: Solid
Percent Solids: 79.0

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0021		0.0021	0.00070	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
1,1,2,2-Tetrachloroethane	<0.0021		0.0021	0.00067	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
1,1,2-Trichloroethane	<0.0021		0.0021	0.00090	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
1,1-Dichloroethane	<0.0021		0.0021	0.00072	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
1,1-Dichloroethene	<0.0021		0.0021	0.00072	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
1,2-Dichloroethane	<0.0052		0.0052	0.0016	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
1,2-Dichloropropane	<0.0021		0.0021	0.00054	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
1,3-Dichloropropene, Total	<0.0021		0.0021	0.00074	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
2-Butanone (MEK)	<0.0052	*1	0.0052	0.0023	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
2-Hexanone	<0.0052	*1	0.0052	0.0016	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
4-Methyl-2-pentanone (MIBK)	<0.0052	*1	0.0052	0.0016	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Acetone	<0.021		0.021	0.0091	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Benzene	<0.0021		0.0021	0.00053	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Bromodichloromethane	<0.0021		0.0021	0.00043	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Bromoform	<0.0021		0.0021	0.00061	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Bromomethane	<0.0052		0.0052	0.0020	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Carbon disulfide	<0.0052		0.0052	0.0011	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Carbon tetrachloride	<0.0021		0.0021	0.00061	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Chlorobenzene	<0.0021		0.0021	0.00077	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Chloroethane	<0.0052		0.0052	0.0016	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Chloroform	<0.0021		0.0021	0.00073	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Chloromethane	<0.0052	*+	0.0052	0.0021	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
cis-1,2-Dichloroethene	<0.0021		0.0021	0.00059	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
cis-1,3-Dichloropropene	<0.0021		0.0021	0.00063	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Dibromochloromethane	<0.0021		0.0021	0.00069	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Ethylbenzene	<0.0021		0.0021	0.0010	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Methyl tert-butyl ether	<0.0021		0.0021	0.00062	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Methylene Chloride	<0.0052		0.0052	0.0021	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Styrene	<0.0021		0.0021	0.00063	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Tetrachloroethene	<0.0021		0.0021	0.00071	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Toluene	**0.00098**	**J**	0.0021	0.00053	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
trans-1,2-Dichloroethene	<0.0021		0.0021	0.00093	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
trans-1,3-Dichloropropene	<0.0021		0.0021	0.00074	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Trichloroethene	<0.0021		0.0021	0.00071	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Vinyl chloride	<0.0021		0.0021	0.00093	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1
Xylenes, Total	<0.0042		0.0042	0.00067	mg/Kg	☼	04/29/23 06:20	05/03/23 04:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 134*	*04/29/23 06:20*	*05/03/23 04:18*	*1*
4-Bromofluorobenzene (Surr)	*92*		*75 - 131*	*04/29/23 06:20*	*05/03/23 04:18*	*1*
Dibromofluoromethane	*101*		*75 - 126*	*04/29/23 06:20*	*05/03/23 04:18*	*1*
Toluene-d8 (Surr)	*89*		*75 - 124*	*04/29/23 06:20*	*05/03/23 04:18*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.21		0.21	0.029	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
1,2-Dichlorobenzene	<0.21		0.21	0.017	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
1,3-Dichlorobenzene	<0.21		0.21	0.019	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
1,4-Dichlorobenzene	<0.21		0.21	0.019	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.029	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1

Client Sample ID: 2233V3-1-B183
Date Collected: 04/27/23 14:10
Date Received: 04/28/23 12:10

Lab Sample ID: 500-233039-13
Matrix: Solid
Percent Solids: 79.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.41		0.41	0.015	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
2,4,6-Trichlorophenol	<0.41		0.41	0.014	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
2,4-Dichlorophenol	<0.41		0.41	0.014	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
2,4-Dimethylphenol	<0.41		0.41	0.092	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
2,4-Dinitrophenol	<0.83		0.83	0.24	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
2,4-Dinitrotoluene	<0.21		0.21	0.023	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
2,6-Dinitrotoluene	<0.21		0.21	0.014	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
2-Chloronaphthalene	<0.21		0.21	0.015	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
2-Chlorophenol	<0.21		0.21	0.013	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
2-Methylnaphthalene	**0.032**	**J**	0.083	0.0082	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
2-Methylphenol	<0.21		0.21	0.022	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
2-Nitroaniline	<0.21		0.21	0.022	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
2-Nitrophenol	<0.41		0.41	0.028	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
3 & 4 Methylphenol	<0.21		0.21	0.030	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.034	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
3-Nitroaniline	<0.41		0.41	0.019	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.23	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.028	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
4-Chloro-3-methylphenol	<0.41		0.41	0.016	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
4-Chloroaniline	<0.83		0.83	0.43	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
4-Nitroaniline	<0.41		0.41	0.030	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
4-Nitrophenol	<0.83		0.83	0.15	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Acenaphthene	<0.041		0.041	0.0084	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Acenaphthylene	<0.041		0.041	0.0070	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Anthracene	**0.014**	**J**	0.041	0.0084	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Benzo[a]anthracene	**0.069**		0.041	0.0087	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Benzo[a]pyrene	**0.079**		0.041	0.040	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Benzo[b]fluoranthene	**0.098**		0.041	0.039	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Benzo[g,h,i]perylene	**0.13**		0.041	0.0089	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Benzo[k]fluoranthene	**0.029**	**J**	0.041	0.016	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.015	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.019	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.16	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Butyl benzyl phthalate	<0.21		0.21	0.020	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Carbazole	<0.21		0.21	0.016	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Chrysene	**0.086**		0.041	0.011	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Dibenz(a,h)anthracene	<0.041		0.041	0.041	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Dibenzofuran	<0.21		0.21	0.015	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Diethyl phthalate	<0.21		0.21	0.019	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Dimethyl phthalate	<0.21		0.21	0.0089	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Di-n-butyl phthalate	<0.21		0.21	0.013	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Di-n-octyl phthalate	<0.41		0.41	0.29	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Fluoranthene	**0.11**		0.041	0.0095	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Fluorene	<0.041		0.041	0.012	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Hexachlorobenzene	<0.083		0.083	0.0079	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Hexachlorobutadiene	<0.21		0.21	0.023	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Hexachlorocyclopentadiene	<0.83		0.83	0.44	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Hexachloroethane	<0.21		0.21	0.021	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1

Client Sample ID: 2233V3-1-B183
Date Collected: 04/27/23 14:10
Date Received: 04/28/23 12:10

Lab Sample ID: 500-233039-13
Matrix: Solid
Percent Solids: 79.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	**0.074**		0.041	0.040	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Isophorone	<0.21		0.21	0.021	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Naphthalene	**0.020**	**J**	0.041	0.0074	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Nitrobenzene	<0.041		0.041	0.013	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.0081	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
N-Nitrosodiphenylamine	<0.21		0.21	0.024	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Pentachlorophenol	<0.83		0.83	0.10	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Phenanthrene	**0.078**		0.041	0.0089	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Phenol	<0.21		0.21	0.018	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1
Pyrene	**0.088**		0.041	0.011	mg/Kg	☼	05/05/23 10:13	05/08/23 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*62*		*31 - 166*	*05/05/23 10:13*	*05/08/23 19:22*	*1*
Phenol-d5	*65*		*30 - 153*	*05/05/23 10:13*	*05/08/23 19:22*	*1*
Nitrobenzene-d5 (Surr)	*75*		*37 - 147*	*05/05/23 10:13*	*05/08/23 19:22*	*1*
2-Fluorobiphenyl	*94*		*43 - 145*	*05/05/23 10:13*	*05/08/23 19:22*	*1*
2,4,6-Tribromophenol	*81*		*31 - 143*	*05/05/23 10:13*	*05/08/23 19:22*	*1*
Terphenyl-d14 (Surr)	*93*		*42 - 157*	*05/05/23 10:13*	*05/08/23 19:22*	*1*

Method: SW846 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.35**	**J**	1.2	0.24	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Arsenic	**5.5**		0.62	0.21	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Barium	**130**		0.62	0.070	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Beryllium	**0.96**		0.25	0.058	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Boron	**13**		3.1	0.29	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Cadmium	**0.45**		0.12	0.022	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Calcium	**36000**	**B**	12	2.1	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Chromium	**12**		0.62	0.31	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Cobalt	**6.6**		0.31	0.081	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Copper	**23**		0.62	0.17	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Iron	**15000**		12	6.4	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Lead	**61**		0.31	0.14	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Magnesium	**22000**		6.2	3.1	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Manganese	**250**		0.62	0.089	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Nickel	**19**		0.62	0.18	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Potassium	**1200**		31	11	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Selenium	<0.62		0.62	0.36	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Silver	**0.26**	**J**	0.31	0.080	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Sodium	**1600**		62	9.1	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Thallium	<0.62		0.62	0.31	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Vanadium	**20**		0.31	0.073	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1
Zinc	**100**		1.2	0.54	mg/Kg	☼	05/02/23 15:49	05/17/23 00:04	1

Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/04/23 17:27	05/09/23 00:21	1
Chromium	<0.025		0.025	0.010	mg/L		05/04/23 17:27	05/09/23 00:21	1
Iron	**0.20**	**J B**	0.40	0.20	mg/L		05/04/23 17:27	05/09/23 00:21	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/04/23 17:27	05/09/23 00:21	1

Client Sample ID: 2233V3-1-B183
Date Collected: 04/27/23 14:10
Date Received: 04/28/23 12:10

Lab Sample ID: 500-233039-13
Matrix: Solid
Percent Solids: 79.0

Method: SW846 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.30		0.025	0.010	mg/L		05/04/23 17:27	05/09/23 00:21	1
Nickel	0.045		0.025	0.010	mg/L		05/04/23 17:27	05/09/23 00:21	1

Method: SW846 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.045	J	0.050	0.010	mg/L		05/03/23 17:48	05/12/23 03:44	1
Barium	0.91		0.50	0.050	mg/L		05/03/23 17:48	05/12/23 03:44	1
Beryllium	0.0073		0.0040	0.0040	mg/L		05/03/23 17:48	05/12/23 03:44	1
Boron	0.12		0.10	0.050	mg/L		05/03/23 17:48	05/12/23 18:03	1
Cadmium	0.0029	J	0.0050	0.0020	mg/L		05/03/23 17:48	05/12/23 03:44	1
Calcium	32	B	2.5	0.50	mg/L		05/03/23 17:48	05/12/23 03:44	1
Chromium	0.18		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 03:44	1
Cobalt	0.040		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 03:44	1
Iron	170		0.40	0.20	mg/L		05/03/23 17:48	05/12/23 18:03	1
Lead	0.24		0.0075	0.0075	mg/L		05/03/23 17:48	05/12/23 03:44	1
Manganese	0.70		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 18:03	1
Nickel	0.14		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 03:44	1
Potassium	19		2.5	0.50	mg/L		05/03/23 17:48	05/12/23 03:44	1
Selenium	<0.050		0.050	0.020	mg/L		05/03/23 17:48	05/12/23 03:44	1
Silver	<0.025		0.025	0.010	mg/L		05/03/23 17:48	05/12/23 03:44	1
Zinc	1.0		0.50	0.020	mg/L		05/03/23 17:48	05/12/23 03:44	1

Method: SW846 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		05/04/23 17:27	05/08/23 18:31	1

Method: SW846 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/03/23 17:48	05/04/23 23:30	1
Thallium	0.0029		0.0020	0.0020	mg/L		05/03/23 17:48	05/04/23 23:30	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/09/23 12:35	05/10/23 11:41	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.070		0.019	0.0098	mg/Kg	☼	05/10/23 16:35	05/11/23 09:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	0.16	J	0.27	0.14	mg/Kg	☼	05/04/23 08:09	05/04/23 09:50	1
pH (SW846 9045D)	7.9		0.2	0.2	SU			05/04/23 16:45	1

Definitions/Glossary

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233039-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-010

Job ID: 500-233039-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-23 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

CHAIN OF CUSTODY RECORD

ANDREWS ENGINEERING

Client Contact	Laboratory
Andrews Engineering, Inc 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact Colleen Grey email cgrey@andrews-eng com	Lab **Eurofins - Chicago** Address **2417 Bond Street** **University Park, IL 60484** Phone **708-534-5200** Contact **Jodie Bracken** email Jodie Bracken@ET EurofinsUS com

Project Name AE8-010A

Project No PTB/WO : 195-002/010A

TAT [X] 15 BD [ ] 10 BD [ ] 5 BD [ ] 2 BD ____ Other

Sampler: J. Weisbrodt

COC No 3 of 3

Lab Job No.: 500-233039

Sample Temp:

Special Instructions:

See Table 2 for complete parameter lists and minimum reporting limits

* If Total RCRA metal (mg/kg) result exceeds the Soil Toxicity Characteristics Limit (Table 3) run TCLP for that specific RCRA metal

** If SPLP result exceeds Class I Standard run TCLP for that specific parameter

*** If total cyanide exceeds MAC, run ASTM D3987 (Neutral Leach) cyanide

Matrix Key:

W Water
S Soil
SL Sludge
S Sediment
L Leachate
DW Drinking Water
OL Oil
O Other

Lab ID	Sample ID	Sample Date	Sample Time	Matrix	VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization	Comments
4	2233V3-1-B187-3	4/27/23	1240	S	X	X					X	X	X	X	X		4 & 4-DUP Not Sampled
5	2233V3-1-B186-1		1250														
6	2233V3-1-B186-2		1300														
7	2233V3-1-B186-3		1310														
8	2233V3-1-B185-1		1320														
9	2233V3-1-B185-2		1330														
10	2233V3-1-B185-3		1340														
11	2233V3-1-B184		1350														
12	2233V3-1-B184 DUP		1400														
13	2233V3-1-B183	↓	1410			↓					↓	↓	↓	↓	↓		
14	Trip Blank #4			↓	↓												

Relinquished by Jared Weisbrodt	Date/Time 04/28/23	Received by [illegible] ECTA	Date/Time 4/28/23 1125
Relinquished by [illegible] ECTA	Date/Time 4/28/23 1200	Received by [illegible]	Date/Time 4/28/23 1200
Relinquished by	Date/Time	Received by	Date/Time

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Colleen Grey
Andrews Engineering Inc.
3300 Ginger Creek Drive
Springfield, Illinois 62711

Generated 3/11/2024 11:34:15 AM

JOB DESCRIPTION

IDOT - AE8-021A

JOB NUMBER

500-246323-1

Eurofins Chicago
2417 Bond Street
University Park IL 60484

See page two for job notes and contact information.

Eurofins Chicago

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

Authorization

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3/11/2024 11:34:15 AM

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(708)534-5200

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Client Sample ID: 2233V3-1-B229-1
Date Collected: 02/15/24 09:20
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-6
Matrix: Solid
Percent Solids: 80.4

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0015		0.0015	0.00050	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00047	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00064	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
1,1-Dichloroethane	<0.0015		0.0015	0.00051	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
1,1-Dichloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
1,2-Dichloroethane	<0.0037		0.0037	0.0012	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
1,2-Dichloropropane	<0.0015		0.0015	0.00038	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
1,3-Dichloropropene, Total	<0.0015		0.0015	0.00052	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
2-Butanone (MEK)	<0.0037		0.0037	0.0016	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
2-Hexanone	<0.0037		0.0037	0.0012	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
4-Methyl-2-pentanone (MIBK)	<0.0037		0.0037	0.0011	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Acetone	<0.015		0.015	0.0065	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Benzene	<0.0015		0.0015	0.00038	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Bromodichloromethane	<0.0015		0.0015	0.00030	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Bromoform	<0.0015		0.0015	0.00043	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Bromomethane	<0.0037	*+	0.0037	0.0014	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Carbon disulfide	<0.0037		0.0037	0.00077	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Carbon tetrachloride	<0.0015		0.0015	0.00043	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Chlorobenzene	<0.0015		0.0015	0.00055	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Chloroethane	<0.0037	*+	0.0037	0.0011	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Chloroform	<0.0015		0.0015	0.00051	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Chloromethane	<0.0037	*+	0.0037	0.0015	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00041	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00045	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Dibromochloromethane	<0.0015		0.0015	0.00048	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Ethylbenzene	<0.0015		0.0015	0.00071	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00044	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Methylene Chloride	<0.0037		0.0037	0.0015	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Styrene	<0.0015		0.0015	0.00045	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Tetrachloroethene	<0.0015		0.0015	0.00050	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Toluene	<0.0015		0.0015	0.00037	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00066	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00052	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Trichloroethene	<0.0015		0.0015	0.00050	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Vinyl chloride	<0.0015	*+	0.0015	0.00066	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1
Xylenes, Total	<0.0030		0.0030	0.00047	mg/Kg	☼	02/16/24 18:23	02/19/24 17:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*81*		*70 - 134*	*02/16/24 18:23*	*02/19/24 17:27*	*1*
4-Bromofluorobenzene (Surr)	*78*		*75 - 131*	*02/16/24 18:23*	*02/19/24 17:27*	*1*
Dibromofluoromethane	*109*		*75 - 126*	*02/16/24 18:23*	*02/19/24 17:27*	*1*
Toluene-d8 (Surr)	*111*		*75 - 124*	*02/16/24 18:23*	*02/19/24 17:27*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.028	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
1,2-Dichlorobenzene	<0.20		0.20	0.016	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
1,3-Dichlorobenzene	<0.20		0.20	0.018	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
1,4-Dichlorobenzene	<0.20		0.20	0.019	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.028	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1

Client Sample ID: 2233V3-1-B229-1
Date Collected: 02/15/24 09:20
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-6
Matrix: Solid
Percent Solids: 80.4

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
2,4,6-Trichlorophenol	<0.39		0.39	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
2,4-Dichlorophenol	<0.39		0.39	0.014	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
2,4-Dimethylphenol	<0.39		0.39	0.088	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
2,4-Dinitrophenol	<0.80		0.80	0.23	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
2,4-Dinitrotoluene	<0.20		0.20	0.022	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
2,6-Dinitrotoluene	<0.20		0.20	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
2-Chloronaphthalene	<0.20		0.20	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
2-Chlorophenol	<0.20		0.20	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
2-Methylnaphthalene	<0.080		0.080	0.0079	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
2-Methylphenol	<0.20		0.20	0.021	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
2-Nitroaniline	<0.20		0.20	0.021	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
2-Nitrophenol	<0.39		0.39	0.027	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
3 & 4 Methylphenol	<0.20		0.20	0.029	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.032	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
3-Nitroaniline	<0.39		0.39	0.018	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.22	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.027	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
4-Chloro-3-methylphenol	<0.39		0.39	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
4-Chloroaniline	<0.80		0.80	0.41	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
4-Nitroaniline	<0.39		0.39	0.029	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
4-Nitrophenol	<0.80		0.80	0.15	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Acenaphthene	<0.039		0.039	0.0080	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Acenaphthylene	<0.039		0.039	0.0067	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Anthracene	<0.039		0.039	0.0081	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Benzo[a]anthracene	<0.039		0.039	0.0084	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Benzo[a]pyrene	<0.039		0.039	0.038	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Benzo[b]fluoranthene	<0.039		0.039	0.038	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Benzo[g,h,i]perylene	<0.039		0.039	0.0085	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Benzo[k]fluoranthene	<0.039		0.039	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.018	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.15	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Butyl benzyl phthalate	<0.20		0.20	0.020	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Carbazole	<0.20		0.20	0.016	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Chrysene	<0.039		0.039	0.010	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Dibenz(a,h)anthracene	<0.039		0.039	0.039	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Dibenzofuran	<0.20		0.20	0.014	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Diethyl phthalate	<0.20		0.20	0.018	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Dimethyl phthalate	<0.20		0.20	0.0086	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Di-n-butyl phthalate	<0.20		0.20	0.012	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Di-n-octyl phthalate	<0.39		0.39	0.28	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Fluoranthene	<0.039		0.039	0.0092	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Fluorene	<0.039		0.039	0.012	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Hexachlorobenzene	<0.080		0.080	0.0076	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Hexachlorobutadiene	<0.20		0.20	0.022	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Hexachlorocyclopentadiene	<0.80		0.80	0.42	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Hexachloroethane	<0.20		0.20	0.020	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Client Sample ID: 2233V3-1-B229-1
Date Collected: 02/15/24 09:20
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-6
Matrix: Solid
Percent Solids: 80.4

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.038	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Isophorone	<0.20		0.20	0.020	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Naphthalene	<0.039		0.039	0.0071	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Nitrobenzene	<0.039		0.039	0.012	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.0078	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
N-Nitrosodiphenylamine	<0.20		0.20	0.023	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Pentachlorophenol	<0.80		0.80	0.099	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Phenanthrene	<0.039		0.039	0.0086	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Phenol	<0.20		0.20	0.017	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1
Pyrene	<0.039		0.039	0.011	mg/Kg	☼	02/28/24 07:47	02/28/24 20:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*76*		*31 - 143*	*02/28/24 07:47*	*02/28/24 20:14*	*1*
2-Fluorobiphenyl	*73*		*43 - 145*	*02/28/24 07:47*	*02/28/24 20:14*	*1*
2-Fluorophenol	*73*		*31 - 166*	*02/28/24 07:47*	*02/28/24 20:14*	*1*
Nitrobenzene-d5 (Surr)	*69*		*37 - 147*	*02/28/24 07:47*	*02/28/24 20:14*	*1*
Phenol-d5	*71*		*30 - 153*	*02/28/24 07:47*	*02/28/24 20:14*	*1*
Terphenyl-d14 (Surr)	*91*		*42 - 157*	*02/28/24 07:47*	*02/28/24 20:14*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.1		2.1	0.41	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Arsenic	**11**		1.1	0.36	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Barium	**80**		1.1	0.12	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Beryllium	**0.93**		0.42	0.099	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Boron	**13**		5.3	0.49	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Cadmium	**0.39**	**B**	0.21	0.038	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Calcium	**32000**		21	3.6	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Chromium	**19**		1.1	0.52	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Cobalt	**13**		0.53	0.14	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Copper	**25**		1.1	0.30	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Iron	**25000**		21	11	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Lead	**15**		0.53	0.24	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Magnesium	**17000**		11	5.3	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Manganese	**520**		1.1	0.15	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Nickel	**35**		1.1	0.31	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Potassium	**2600**		53	19	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Selenium	<1.1		1.1	0.62	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Silver	**0.49**	**J**	0.53	0.14	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Sodium	**1100**		110	16	mg/Kg	☼	02/28/24 08:57	03/05/24 23:05	1
Thallium	<1.1		1.1	0.53	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Vanadium	**28**		0.53	0.13	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1
Zinc	**78**		2.1	0.93	mg/Kg	☼	02/28/24 08:57	03/04/24 14:08	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		02/29/24 16:30	03/04/24 15:15	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/29/24 16:30	03/04/24 15:15	1
Chromium	<0.025		0.025	0.010	mg/L		02/29/24 16:30	03/04/24 15:15	1
Iron	**0.20**	**J**	0.40	0.20	mg/L		02/29/24 16:30	03/04/24 15:15	1

Client Sample ID: 2233V3-1-B229-1
Date Collected: 02/15/24 09:20
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-6
Matrix: Solid
Percent Solids: 80.4

Method: SW846 6010D - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		02/29/24 16:30	03/04/24 15:15	1
Manganese	**6.9**		0.025	0.010	mg/L		02/29/24 16:30	03/04/24 15:15	1
Nickel	**0.034**		0.025	0.010	mg/L		02/29/24 16:30	03/04/24 15:15	1

Method: SW846 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.10**		0.050	0.010	mg/L		02/29/24 16:30	03/02/24 03:28	1
Barium	**1.0**		0.50	0.050	mg/L		02/29/24 16:30	03/02/24 03:28	1
Beryllium	**0.0089**		0.0040	0.0040	mg/L		02/29/24 16:30	03/02/24 03:28	1
Boron	**0.21**	**J**	0.40	0.050	mg/L		02/29/24 16:30	03/02/24 03:28	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/29/24 16:30	03/02/24 03:28	1
Calcium	**38**	**B**	2.5	0.50	mg/L		02/29/24 16:30	03/02/24 03:28	1
Chromium	**0.22**		0.025	0.010	mg/L		02/29/24 16:30	03/02/24 03:28	1
Cobalt	**0.10**		0.025	0.010	mg/L		02/29/24 16:30	03/02/24 03:28	1
Iron	**240**	**B**	0.40	0.20	mg/L		02/29/24 16:30	03/02/24 03:28	1
Lead	**0.16**		0.0075	0.0075	mg/L		02/29/24 16:30	03/02/24 03:28	1
Manganese	**2.8**		0.025	0.010	mg/L		02/29/24 16:30	03/02/24 03:28	1
Nickel	**0.29**		0.025	0.010	mg/L		02/29/24 16:30	03/02/24 03:28	1
Potassium	**36**		2.5	0.50	mg/L		02/29/24 16:30	03/02/24 03:28	1
Selenium	<0.050		0.050	0.020	mg/L		02/29/24 16:30	03/02/24 03:28	1
Silver	<0.025		0.025	0.010	mg/L		02/29/24 16:30	03/02/24 03:28	1
Zinc	**0.65**		0.50	0.020	mg/L		02/29/24 16:30	03/02/24 03:28	1

Method: SW846 6020B - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^1+	0.0060	0.0060	mg/L		02/29/24 16:30	03/01/24 20:27	1
Thallium	**0.0020**		0.0020	0.0020	mg/L		02/29/24 16:30	03/05/24 00:05	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		03/01/24 10:30	03/04/24 08:51	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.024**		0.019	0.010	mg/Kg	☼	02/29/24 14:55	03/01/24 09:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**0.16**	**J**	0.28	0.14	mg/Kg	☼	02/26/24 10:55	02/26/24 17:19	1
pH (SW846 9045D)	**8.8**		0.2	0.2	SU			02/22/24 08:36	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Client Sample ID: 2233V3-1-B229-2
Date Collected: 02/15/24 09:30
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-7
Matrix: Solid
Percent Solids: 79.1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Acetone	**0.015**	**J**	0.016	0.0068	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Bromomethane	<0.0039	*+	0.0039	0.0015	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Carbon disulfide	<0.0039		0.0039	0.00082	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Chlorobenzene	<0.0016		0.0016	0.00058	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Chloroethane	<0.0039	*+	0.0039	0.0012	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Chloromethane	<0.0039	*+	0.0039	0.0016	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Styrene	<0.0016		0.0016	0.00047	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00070	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Vinyl chloride	<0.0016	*+	0.0016	0.00069	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	02/16/24 18:23	02/19/24 17:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 134*	*02/16/24 18:23*	*02/19/24 17:52*	*1*
4-Bromofluorobenzene (Surr)	*83*		*75 - 131*	*02/16/24 18:23*	*02/19/24 17:52*	*1*
Dibromofluoromethane	*111*		*75 - 126*	*02/16/24 18:23*	*02/19/24 17:52*	*1*
Toluene-d8 (Surr)	*103*		*75 - 124*	*02/16/24 18:23*	*02/19/24 17:52*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.21		0.21	0.029	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
1,2-Dichlorobenzene	<0.21		0.21	0.017	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
1,3-Dichlorobenzene	<0.21		0.21	0.019	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
1,4-Dichlorobenzene	<0.21		0.21	0.019	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.030	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1

Client Sample ID: 2233V3-1-B229-2
Date Collected: 02/15/24 09:30
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-7
Matrix: Solid
Percent Solids: 79.1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.41		0.41	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
2,4,6-Trichlorophenol	<0.41		0.41	0.014	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
2,4-Dichlorophenol	<0.41		0.41	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
2,4-Dimethylphenol	<0.41		0.41	0.092	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
2,4-Dinitrophenol	<0.83		0.83	0.24	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
2,4-Dinitrotoluene	<0.21		0.21	0.023	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
2,6-Dinitrotoluene	<0.21		0.21	0.014	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
2-Chloronaphthalene	<0.21		0.21	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
2-Chlorophenol	<0.21		0.21	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
2-Methylnaphthalene	<0.083		0.083	0.0083	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
2-Methylphenol	<0.21		0.21	0.022	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
2-Nitroaniline	<0.21		0.21	0.022	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
2-Nitrophenol	<0.41		0.41	0.028	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
3 & 4 Methylphenol	<0.21		0.21	0.030	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.034	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
3-Nitroaniline	<0.41		0.41	0.019	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.23	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.028	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
4-Chloro-3-methylphenol	<0.41		0.41	0.016	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
4-Chloroaniline	<0.83		0.83	0.43	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
4-Nitroaniline	<0.41		0.41	0.030	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
4-Nitrophenol	<0.83		0.83	0.15	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Acenaphthene	<0.041		0.041	0.0084	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Acenaphthylene	<0.041		0.041	0.0070	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Anthracene	<0.041		0.041	0.0084	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Benzo[a]anthracene	<0.041		0.041	0.0087	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Benzo[a]pyrene	<0.041		0.041	0.040	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Benzo[b]fluoranthene	<0.041		0.041	0.039	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Benzo[g,h,i]perylene	<0.041		0.041	0.0089	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Benzo[k]fluoranthene	<0.041		0.041	0.016	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.019	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.16	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Butyl benzyl phthalate	<0.21		0.21	0.020	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Carbazole	<0.21		0.21	0.016	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Chrysene	<0.041		0.041	0.011	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Dibenz(a,h)anthracene	<0.041		0.041	0.041	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Dibenzofuran	<0.21		0.21	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Diethyl phthalate	<0.21		0.21	0.019	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Dimethyl phthalate	<0.21		0.21	0.0089	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Di-n-butyl phthalate	<0.21		0.21	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Di-n-octyl phthalate	<0.41		0.41	0.29	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Fluoranthene	<0.041		0.041	0.0096	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Fluorene	<0.041		0.041	0.012	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Hexachlorobenzene	<0.083		0.083	0.0079	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Hexachlorobutadiene	<0.21		0.21	0.023	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Hexachlorocyclopentadiene	<0.83		0.83	0.44	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Hexachloroethane	<0.21		0.21	0.021	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1

Client Sample ID: 2233V3-1-B229-2
Date Collected: 02/15/24 09:30
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-7
Matrix: Solid
Percent Solids: 79.1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.040	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Isophorone	<0.21		0.21	0.021	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Naphthalene	<0.041		0.041	0.0074	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Nitrobenzene	<0.041		0.041	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.0081	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
N-Nitrosodiphenylamine	<0.21		0.21	0.024	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Pentachlorophenol	<0.83		0.83	0.10	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Phenanthrene	<0.041		0.041	0.0090	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Phenol	<0.21		0.21	0.018	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1
Pyrene	<0.041		0.041	0.011	mg/Kg	☼	02/28/24 07:47	02/28/24 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*77*		*31 - 143*	*02/28/24 07:47*	*02/28/24 19:25*	*1*
2-Fluorobiphenyl	*70*		*43 - 145*	*02/28/24 07:47*	*02/28/24 19:25*	*1*
2-Fluorophenol	*69*		*31 - 166*	*02/28/24 07:47*	*02/28/24 19:25*	*1*
Nitrobenzene-d5 (Surr)	*63*		*37 - 147*	*02/28/24 07:47*	*02/28/24 19:25*	*1*
Phenol-d5	*68*		*30 - 153*	*02/28/24 07:47*	*02/28/24 19:25*	*1*
Terphenyl-d14 (Surr)	*95*		*42 - 157*	*02/28/24 07:47*	*02/28/24 19:25*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.4		2.4	0.47	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Arsenic	**12**		1.2	0.41	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Barium	**81**		1.2	0.14	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Beryllium	**0.78**		0.48	0.11	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Boron	**11**		6.0	0.56	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Cadmium	**0.36**	**B**	0.24	0.043	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Calcium	**24000**		24	4.1	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Chromium	**22**		1.2	0.60	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Cobalt	**13**		0.60	0.16	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Copper	**24**		1.2	0.34	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Iron	**29000**		24	13	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Lead	**16**		0.60	0.28	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Magnesium	**13000**		12	6.0	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Manganese	**350**		1.2	0.18	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Nickel	**30**		1.2	0.35	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Potassium	**2700**		60	21	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Selenium	**0.89**	**J**	1.2	0.71	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Silver	**0.34**	**J**	0.60	0.16	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Sodium	**1000**		120	18	mg/Kg	☼	02/28/24 08:57	03/05/24 23:09	1
Thallium	<1.2		1.2	0.60	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Vanadium	**35**		0.60	0.14	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1
Zinc	**75**		2.4	1.1	mg/Kg	☼	02/28/24 08:57	03/04/24 14:11	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.27**	**J**	0.40	0.20	mg/L		02/29/24 16:30	03/04/24 15:20	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/29/24 16:30	03/04/24 15:20	1
Manganese	**12**		0.025	0.010	mg/L		02/29/24 16:30	03/04/24 15:20	1

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Client Sample ID: 2233V3-1-B229-2

Date Collected: 02/15/24 09:30
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-7

Matrix: Solid
Percent Solids: 79.1

Method: SW846 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.036**	**J**	0.050	0.010	mg/L		02/29/24 16:30	03/02/24 03:32	1
Barium	**0.32**	**J**	0.50	0.050	mg/L		02/29/24 16:30	03/02/24 03:32	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/29/24 16:30	03/02/24 03:32	1
Boron	**0.11**	**J**	0.40	0.050	mg/L		02/29/24 16:30	03/02/24 03:32	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/29/24 16:30	03/02/24 03:32	1
Calcium	**16**	**B**	2.5	0.50	mg/L		02/29/24 16:30	03/02/24 03:32	1
Chromium	**0.094**		0.025	0.010	mg/L		02/29/24 16:30	03/02/24 03:32	1
Cobalt	**0.031**		0.025	0.010	mg/L		02/29/24 16:30	03/02/24 03:32	1
Iron	**93**	**B**	0.40	0.20	mg/L		02/29/24 16:30	03/02/24 03:32	1
Lead	**0.058**		0.0075	0.0075	mg/L		02/29/24 16:30	03/02/24 03:32	1
Manganese	**0.81**		0.025	0.010	mg/L		02/29/24 16:30	03/02/24 03:32	1
Nickel	**0.091**		0.025	0.010	mg/L		02/29/24 16:30	03/02/24 03:32	1
Potassium	**22**		2.5	0.50	mg/L		02/29/24 16:30	03/02/24 03:32	1
Selenium	<0.050		0.050	0.020	mg/L		02/29/24 16:30	03/02/24 03:32	1
Silver	<0.025		0.025	0.010	mg/L		02/29/24 16:30	03/02/24 03:32	1
Zinc	**0.21**	**J**	0.50	0.020	mg/L		02/29/24 16:30	03/02/24 03:32	1

Method: SW846 6020B - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^1+	0.0060	0.0060	mg/L		02/29/24 16:30	03/01/24 20:31	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/29/24 16:30	03/05/24 00:09	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		03/01/24 10:30	03/04/24 08:54	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.024**		0.020	0.010	mg/Kg	☼	02/29/24 14:55	03/01/24 10:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**0.16**	**J**	0.27	0.14	mg/Kg	☼	02/26/24 10:55	02/26/24 17:21	1
pH (SW846 9045D)	**8.3**		0.2	0.2	SU			02/22/24 08:36	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Client Sample ID: 2233V3-1-B235-1
Date Collected: 02/15/24 10:40
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-14
Matrix: Solid
Percent Solids: 85.8

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0014		0.0014	0.00046	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
1,1,2,2-Tetrachloroethane	<0.0014		0.0014	0.00044	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
1,1,2-Trichloroethane	<0.0014		0.0014	0.00059	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
1,1-Dichloroethane	<0.0014		0.0014	0.00047	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
1,1-Dichloroethene	<0.0014		0.0014	0.00048	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
1,2-Dichloroethane	<0.0035		0.0035	0.0011	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
1,2-Dichloropropane	<0.0014		0.0014	0.00036	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
1,3-Dichloropropene, Total	<0.0014		0.0014	0.00049	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
2-Butanone (MEK)	<0.0035		0.0035	0.0015	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
2-Hexanone	<0.0035		0.0035	0.0011	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
4-Methyl-2-pentanone (MIBK)	<0.0035		0.0035	0.0010	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Acetone	**0.011**	**J**	0.014	0.0060	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Benzene	<0.0014		0.0014	0.00035	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Bromodichloromethane	<0.0014		0.0014	0.00028	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Bromoform	<0.0014		0.0014	0.00040	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Bromomethane	<0.0035	*+	0.0035	0.0013	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Carbon disulfide	<0.0035		0.0035	0.00072	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Carbon tetrachloride	<0.0014		0.0014	0.00040	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Chlorobenzene	<0.0014		0.0014	0.00051	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Chloroethane	<0.0035	*+	0.0035	0.0010	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Chloroform	<0.0014		0.0014	0.00048	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Chloromethane	<0.0035	*+	0.0035	0.0014	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
cis-1,2-Dichloroethene	<0.0014		0.0014	0.00039	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
cis-1,3-Dichloropropene	<0.0014		0.0014	0.00042	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Dibromochloromethane	<0.0014		0.0014	0.00045	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Ethylbenzene	<0.0014		0.0014	0.00066	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Methyl tert-butyl ether	<0.0014		0.0014	0.00041	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Methylene Chloride	<0.0035		0.0035	0.0014	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Styrene	<0.0014		0.0014	0.00042	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Tetrachloroethene	<0.0014		0.0014	0.00047	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Toluene	<0.0014		0.0014	0.00035	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
trans-1,2-Dichloroethene	<0.0014		0.0014	0.00061	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
trans-1,3-Dichloropropene	<0.0014		0.0014	0.00049	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Trichloroethene	<0.0014		0.0014	0.00047	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Vinyl chloride	<0.0014	*+	0.0014	0.00061	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1
Xylenes, Total	<0.0028		0.0028	0.00044	mg/Kg	☼	02/16/24 18:23	02/19/24 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 134*	*02/16/24 18:23*	*02/19/24 20:44*	*1*
4-Bromofluorobenzene (Surr)	*82*		*75 - 131*	*02/16/24 18:23*	*02/19/24 20:44*	*1*
Dibromofluoromethane	*111*		*75 - 126*	*02/16/24 18:23*	*02/19/24 20:44*	*1*
Toluene-d8 (Surr)	*104*		*75 - 124*	*02/16/24 18:23*	*02/19/24 20:44*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.027	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
1,2-Dichlorobenzene	<0.19		0.19	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
1,3-Dichlorobenzene	<0.19		0.19	0.017	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
1,4-Dichlorobenzene	<0.19		0.19	0.018	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.027	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Client Sample ID: 2233V3-1-B235-1
Date Collected: 02/15/24 10:40
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-14
Matrix: Solid
Percent Solids: 85.8

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.37		0.37	0.014	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
2,4,6-Trichlorophenol	<0.37		0.37	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
2,4-Dichlorophenol	<0.37		0.37	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
2,4-Dimethylphenol	<0.37		0.37	0.084	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
2,4-Dinitrophenol	<0.75		0.75	0.22	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
2,4-Dinitrotoluene	<0.19		0.19	0.021	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
2,6-Dinitrotoluene	<0.19		0.19	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
2-Chloronaphthalene	<0.19		0.19	0.014	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
2-Chlorophenol	<0.19		0.19	0.012	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
2-Methylnaphthalene	<0.075		0.075	0.0075	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
2-Methylphenol	<0.19		0.19	0.020	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
2-Nitroaniline	<0.19		0.19	0.020	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
2-Nitrophenol	<0.37		0.37	0.025	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
3 & 4 Methylphenol	<0.19		0.19	0.027	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.030	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
3-Nitroaniline	<0.37		0.37	0.017	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.21	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.026	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
4-Chloro-3-methylphenol	<0.37		0.37	0.014	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
4-Chloroaniline	<0.75		0.75	0.39	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
4-Nitroaniline	<0.37		0.37	0.028	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
4-Nitrophenol	<0.75		0.75	0.14	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Acenaphthene	<0.037		0.037	0.0076	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Acenaphthylene	<0.037		0.037	0.0063	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Anthracene	<0.037		0.037	0.0076	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Benzo[a]anthracene	<0.037		0.037	0.0079	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Benzo[a]pyrene	<0.037		0.037	0.036	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Benzo[b]fluoranthene	<0.037		0.037	0.036	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Benzo[g,h,i]perylene	<0.037		0.037	0.0081	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Benzo[k]fluoranthene	<0.037		0.037	0.014	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.014	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.017	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.15	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Butyl benzyl phthalate	<0.19		0.19	0.019	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Carbazole	<0.19		0.19	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Chrysene	<0.037		0.037	0.0098	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Dibenz(a,h)anthracene	<0.037		0.037	0.037	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Dibenzofuran	<0.19		0.19	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Diethyl phthalate	<0.19		0.19	0.017	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Dimethyl phthalate	<0.19		0.19	0.0081	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Di-n-butyl phthalate	<0.19		0.19	0.012	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Di-n-octyl phthalate	<0.37		0.37	0.26	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Fluoranthene	<0.037		0.037	0.0087	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Fluorene	<0.037		0.037	0.011	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Hexachlorobenzene	<0.075		0.075	0.0071	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Hexachlorobutadiene	<0.19		0.19	0.021	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Hexachlorocyclopentadiene	<0.75		0.75	0.40	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Hexachloroethane	<0.19		0.19	0.019	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Client Sample ID: 2233V3-1-B235-1
Date Collected: 02/15/24 10:40
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-14
Matrix: Solid
Percent Solids: 85.8

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.036	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Isophorone	<0.19		0.19	0.019	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Naphthalene	<0.037		0.037	0.0067	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Nitrobenzene	<0.037		0.037	0.012	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.0074	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
N-Nitrosodiphenylamine	<0.19		0.19	0.022	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Pentachlorophenol	<0.75		0.75	0.093	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Phenanthrene	<0.037		0.037	0.0081	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Phenol	<0.19		0.19	0.016	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1
Pyrene	<0.037		0.037	0.010	mg/Kg	☼	02/28/24 07:47	02/28/24 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*65*		*31 - 143*	*02/28/24 07:47*	*02/28/24 17:44*	*1*
2-Fluorobiphenyl	*51*		*43 - 145*	*02/28/24 07:47*	*02/28/24 17:44*	*1*
2-Fluorophenol	*51*		*31 - 166*	*02/28/24 07:47*	*02/28/24 17:44*	*1*
Nitrobenzene-d5 (Surr)	*46*		*37 - 147*	*02/28/24 07:47*	*02/28/24 17:44*	*1*
Phenol-d5	*50*		*30 - 153*	*02/28/24 07:47*	*02/28/24 17:44*	*1*
Terphenyl-d14 (Surr)	*82*		*42 - 157*	*02/28/24 07:47*	*02/28/24 17:44*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.2		2.2	0.43	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Arsenic	**6.8**		1.1	0.37	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Barium	**72**		1.1	0.12	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Beryllium	**0.64**		0.44	0.10	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Boron	**7.5**		5.5	0.51	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Cadmium	**0.56**	**B**	0.22	0.039	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Calcium	**66000**		22	3.7	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Chromium	**15**		1.1	0.54	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Cobalt	**11**		0.55	0.14	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Copper	**20**		1.1	0.31	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Iron	**18000**		22	11	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Lead	**11**		0.55	0.25	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Magnesium	**27000**		11	5.4	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Manganese	**500**		1.1	0.16	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Nickel	**28**		1.1	0.32	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Potassium	**1900**		55	19	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Selenium	<1.1		1.1	0.64	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Silver	**0.92**		0.55	0.14	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Sodium	**1200**		110	16	mg/Kg	☼	02/28/24 08:57	03/05/24 23:47	1
Thallium	<1.1		1.1	0.55	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Vanadium	**17**		0.55	0.13	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1
Zinc	**58**		2.2	0.96	mg/Kg	☼	02/28/24 08:57	03/04/24 14:35	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		03/01/24 17:15	03/04/24 17:18	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		03/01/24 17:15	03/04/24 17:18	1
Chromium	<0.025		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 17:18	1
Iron	**4.5**		0.40	0.20	mg/L		03/01/24 17:15	03/04/24 17:18	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Client Sample ID: 2233V3-1-B235-1
Date Collected: 02/15/24 10:40
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-14
Matrix: Solid
Percent Solids: 85.8

Method: SW846 6010D - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		03/01/24 17:15	03/04/24 17:18	1
Manganese	**7.5**		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 17:18	1
Nickel	**0.056**		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 17:18	1

Method: SW846 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.089**		0.050	0.010	mg/L		03/01/24 17:15	03/04/24 21:04	1
Barium	**0.49**	**J**	0.50	0.050	mg/L		03/01/24 17:15	03/04/24 21:04	1
Beryllium	**0.0049**		0.0040	0.0040	mg/L		03/01/24 17:15	03/04/24 21:04	1
Boron	**0.14**	**J B**	0.40	0.050	mg/L		03/05/24 17:05	03/06/24 12:30	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		03/01/24 17:15	03/04/24 21:04	1
Calcium	**23**		2.5	0.50	mg/L		03/01/24 17:15	03/04/24 21:04	1
Chromium	**0.11**		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:04	1
Cobalt	**0.043**		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:04	1
Iron	**160**		0.40	0.20	mg/L		03/01/24 17:15	03/04/24 21:04	1
Lead	**0.073**		0.0075	0.0075	mg/L		03/01/24 17:15	03/04/24 21:04	1
Manganese	**0.65**	**^2**	0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:04	1
Nickel	**0.16**		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:04	1
Potassium	**24**		2.5	0.50	mg/L		03/01/24 17:15	03/04/24 21:04	1
Selenium	<0.050		0.050	0.020	mg/L		03/01/24 17:15	03/04/24 21:04	1
Silver	<0.025		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:04	1
Zinc	**0.69**		0.50	0.020	mg/L		03/01/24 17:15	03/04/24 21:04	1

Method: SW846 6020B - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		03/01/24 17:15	03/05/24 23:07	1

Method: SW846 6020B - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^1+	0.0060	0.0060	mg/L		03/01/24 17:15	03/05/24 01:01	1
Thallium	**0.0041**		0.0020	0.0020	mg/L		03/01/24 17:15	03/09/24 20:30	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		03/04/24 11:10	03/05/24 08:23	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.030**		0.018	0.0097	mg/Kg	☼	02/29/24 14:55	03/01/24 10:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.26		0.26	0.13	mg/Kg	☼	02/27/24 13:30	02/27/24 17:09	1
pH (SW846 9045D)	**8.1**		0.2	0.2	SU			02/22/24 08:36	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Client Sample ID: 2233V3-1-B235-1 Dup

Date Collected: 02/15/24 10:50
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-15

Matrix: Solid
Percent Solids: 77.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Acetone	**0.014**	**J**	0.018	0.0077	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Bromomethane	<0.0044	*+	0.0044	0.0017	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Carbon disulfide	<0.0044		0.0044	0.00092	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Chloroethane	<0.0044	*+	0.0044	0.0013	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Chloromethane	<0.0044	*+	0.0044	0.0018	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Vinyl chloride	<0.0018	*+	0.0018	0.00078	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1
Xylenes, Total	<0.0035		0.0035	0.00057	mg/Kg	☼	02/16/24 18:23	02/19/24 21:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 134*	*02/16/24 18:23*	*02/19/24 21:09*	*1*
4-Bromofluorobenzene (Surr)	*84*		*75 - 131*	*02/16/24 18:23*	*02/19/24 21:09*	*1*
Dibromofluoromethane	*112*		*75 - 126*	*02/16/24 18:23*	*02/19/24 21:09*	*1*
Toluene-d8 (Surr)	*103*		*75 - 124*	*02/16/24 18:23*	*02/19/24 21:09*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.21		0.21	0.029	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
1,2-Dichlorobenzene	<0.21		0.21	0.017	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
1,3-Dichlorobenzene	<0.21		0.21	0.019	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
1,4-Dichlorobenzene	<0.21		0.21	0.020	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.030	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1

Client Sample ID: 2233V3-1-B235-1 Dup
Date Collected: 02/15/24 10:50
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-15
Matrix: Solid
Percent Solids: 77.5

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.41		0.41	0.016	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
2,4,6-Trichlorophenol	<0.41		0.41	0.014	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
2,4-Dichlorophenol	<0.41		0.41	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
2,4-Dimethylphenol	<0.41		0.41	0.092	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
2,4-Dinitrophenol	<0.83		0.83	0.24	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
2,4-Dinitrotoluene	<0.21		0.21	0.024	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
2,6-Dinitrotoluene	<0.21		0.21	0.014	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
2-Chloronaphthalene	<0.21		0.21	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
2-Chlorophenol	<0.21		0.21	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
2-Methylnaphthalene	<0.083		0.083	0.0083	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
2-Methylphenol	<0.21		0.21	0.022	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
2-Nitroaniline	<0.21		0.21	0.022	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
2-Nitrophenol	<0.41		0.41	0.028	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
3 & 4 Methylphenol	<0.21		0.21	0.030	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.034	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
3-Nitroaniline	<0.41		0.41	0.019	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.23	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.028	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
4-Chloro-3-methylphenol	<0.41		0.41	0.016	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
4-Chloroaniline	<0.83		0.83	0.43	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
4-Nitroaniline	<0.41		0.41	0.030	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
4-Nitrophenol	<0.83		0.83	0.15	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Acenaphthene	<0.041		0.041	0.0084	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Acenaphthylene	<0.041		0.041	0.0070	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Anthracene	<0.041		0.041	0.0084	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Benzo[a]anthracene	<0.041		0.041	0.0088	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Benzo[a]pyrene	<0.041		0.041	0.040	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Benzo[b]fluoranthene	<0.041		0.041	0.039	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Benzo[g,h,i]perylene	<0.041		0.041	0.0089	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Benzo[k]fluoranthene	<0.041		0.041	0.016	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.019	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.16	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Butyl benzyl phthalate	<0.21		0.21	0.021	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Carbazole	<0.21		0.21	0.016	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Chrysene	<0.041		0.041	0.011	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Dibenz(a,h)anthracene	<0.041		0.041	0.041	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Dibenzofuran	<0.21		0.21	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Diethyl phthalate	<0.21		0.21	0.019	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Dimethyl phthalate	<0.21		0.21	0.0090	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Di-n-butyl phthalate	<0.21		0.21	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Di-n-octyl phthalate	<0.41		0.41	0.29	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Fluoranthene	<0.041		0.041	0.0096	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Fluorene	<0.041		0.041	0.012	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Hexachlorobenzene	<0.083		0.083	0.0079	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Hexachlorobutadiene	<0.21		0.21	0.023	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Hexachlorocyclopentadiene	<0.83		0.83	0.44	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Hexachloroethane	<0.21		0.21	0.021	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Client Sample ID: 2233V3-1-B235-1 Dup
Date Collected: 02/15/24 10:50
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-15
Matrix: Solid
Percent Solids: 77.5

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.040	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Isophorone	<0.21		0.21	0.021	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Naphthalene	<0.041		0.041	0.0075	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Nitrobenzene	<0.041		0.041	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.0082	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
N-Nitrosodiphenylamine	<0.21		0.21	0.025	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Pentachlorophenol	<0.83		0.83	0.10	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Phenanthrene	<0.041		0.041	0.0090	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Phenol	<0.21		0.21	0.018	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1
Pyrene	<0.041		0.041	0.011	mg/Kg	☼	02/28/24 07:47	02/28/24 21:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*76*		*31 - 143*	*02/28/24 07:47*	*02/28/24 21:29*	*1*
2-Fluorobiphenyl	*62*		*43 - 145*	*02/28/24 07:47*	*02/28/24 21:29*	*1*
2-Fluorophenol	*62*		*31 - 166*	*02/28/24 07:47*	*02/28/24 21:29*	*1*
Nitrobenzene-d5 (Surr)	*58*		*37 - 147*	*02/28/24 07:47*	*02/28/24 21:29*	*1*
Phenol-d5	*60*		*30 - 153*	*02/28/24 07:47*	*02/28/24 21:29*	*1*
Terphenyl-d14 (Surr)	*95*		*42 - 157*	*02/28/24 07:47*	*02/28/24 21:29*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.2		2.2	0.43	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Arsenic	**8.6**		1.1	0.38	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Barium	**76**		1.1	0.13	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Beryllium	**0.76**		0.44	0.10	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Boron	**15**		5.5	0.52	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Cadmium	**0.62**	**B**	0.22	0.040	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Calcium	**58000**		22	3.8	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Chromium	**20**		1.1	0.55	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Cobalt	**12**		0.55	0.15	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Copper	**26**		1.1	0.31	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Iron	**22000**		22	12	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Lead	**13**		0.55	0.26	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Magnesium	**26000**		11	5.5	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Manganese	**560**		1.1	0.16	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Nickel	**35**		1.1	0.32	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Potassium	**3300**		55	20	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Selenium	<1.1		1.1	0.65	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Silver	**0.88**		0.55	0.14	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Sodium	**1400**		110	16	mg/Kg	☼	02/28/24 08:57	03/05/24 23:51	1
Thallium	<1.1		1.1	0.55	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Vanadium	**28**		0.55	0.13	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1
Zinc	**89**		2.2	0.97	mg/Kg	☼	02/28/24 08:57	03/04/24 14:47	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		03/01/24 17:15	03/04/24 19:06	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		03/01/24 17:15	03/04/24 19:06	1
Chromium	<0.025		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 19:06	1
Iron	**0.34**	**J**	0.40	0.20	mg/L		03/01/24 17:15	03/04/24 19:06	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Client Sample ID: 2233V3-1-B235-1 Dup

Date Collected: 02/15/24 10:50
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-15

Matrix: Solid
Percent Solids: 77.5

Method: SW846 6010D - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		03/01/24 17:15	03/04/24 19:06	1
Manganese	**3.1**		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 19:06	1
Nickel	**0.018**	**J**	0.025	0.010	mg/L		03/01/24 17:15	03/04/24 19:06	1

Method: SW846 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.081**		0.050	0.010	mg/L		03/01/24 17:15	03/04/24 21:07	1
Barium	**0.68**		0.50	0.050	mg/L		03/01/24 17:15	03/04/24 21:07	1
Beryllium	**0.0075**		0.0040	0.0040	mg/L		03/01/24 17:15	03/04/24 21:07	1
Boron	**0.18**	**J B**	0.40	0.050	mg/L		03/05/24 17:05	03/06/24 12:34	1
Cadmium	**0.0024**	**J**	0.0050	0.0020	mg/L		03/01/24 17:15	03/04/24 21:07	1
Calcium	**45**		2.5	0.50	mg/L		03/01/24 17:15	03/04/24 21:07	1
Chromium	**0.17**		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:07	1
Cobalt	**0.058**		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:07	1
Iron	**200**		0.40	0.20	mg/L		03/01/24 17:15	03/04/24 21:07	1
Lead	**0.086**		0.0075	0.0075	mg/L		03/01/24 17:15	03/04/24 21:07	1
Manganese	**0.96**	**^2**	0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:07	1
Nickel	**0.20**		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:07	1
Potassium	**29**		2.5	0.50	mg/L		03/01/24 17:15	03/04/24 21:07	1
Selenium	<0.050		0.050	0.020	mg/L		03/01/24 17:15	03/04/24 21:07	1
Silver	<0.025		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:07	1
Zinc	**0.61**		0.50	0.020	mg/L		03/01/24 17:15	03/04/24 21:07	1

Method: SW846 6020B - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		03/01/24 17:15	03/09/24 17:04	1

Method: SW846 6020B - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^1+	0.0060	0.0060	mg/L		03/01/24 17:15	03/05/24 01:14	1
Thallium	**0.0030**		0.0020	0.0020	mg/L		03/01/24 17:15	03/09/24 20:44	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		03/04/24 11:10	03/05/24 08:25	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.044**		0.020	0.011	mg/Kg	☼	02/29/24 14:55	03/01/24 10:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.28		0.28	0.14	mg/Kg	☼	02/27/24 13:30	02/27/24 17:11	1
pH (SW846 9045D)	**8.1**		0.2	0.2	SU			02/22/24 08:36	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Client Sample ID: 2233V3-1-B235-2
Date Collected: 02/15/24 11:00
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-16
Matrix: Solid
Percent Solids: 81.7

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0015		0.0015	0.00051	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00048	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00065	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
1,1-Dichloroethane	<0.0015		0.0015	0.00052	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
1,1-Dichloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
1,2-Dichloroethane	<0.0038		0.0038	0.0012	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
1,2-Dichloropropane	<0.0015		0.0015	0.00039	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
1,3-Dichloropropene, Total	<0.0015		0.0015	0.00053	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
2-Butanone (MEK)	<0.0038		0.0038	0.0017	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
2-Hexanone	<0.0038		0.0038	0.0012	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
4-Methyl-2-pentanone (MIBK)	<0.0038		0.0038	0.0011	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Acetone	**0.023**		0.015	0.0066	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Benzene	<0.0015		0.0015	0.00038	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Bromodichloromethane	<0.0015		0.0015	0.00031	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Bromoform	<0.0015		0.0015	0.00044	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Bromomethane	<0.0038	*+	0.0038	0.0014	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Carbon disulfide	<0.0038		0.0038	0.00078	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Carbon tetrachloride	<0.0015		0.0015	0.00044	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Chlorobenzene	<0.0015		0.0015	0.00056	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Chloroethane	<0.0038	*+	0.0038	0.0011	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Chloroform	<0.0015		0.0015	0.00052	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Chloromethane	<0.0038	*+	0.0038	0.0015	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00042	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00045	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Dibromochloromethane	<0.0015		0.0015	0.00049	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Ethylbenzene	<0.0015		0.0015	0.00072	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00044	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Methylene Chloride	<0.0038		0.0038	0.0015	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Styrene	<0.0015		0.0015	0.00045	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Tetrachloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Toluene	<0.0015		0.0015	0.00038	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00067	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00053	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Trichloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Vinyl chloride	<0.0015	*+	0.0015	0.00067	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1
Xylenes, Total	<0.0030		0.0030	0.00048	mg/Kg	☼	02/16/24 18:23	02/19/24 21:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 134*	*02/16/24 18:23*	*02/19/24 21:34*	*1*
4-Bromofluorobenzene (Surr)	*86*		*75 - 131*	*02/16/24 18:23*	*02/19/24 21:34*	*1*
Dibromofluoromethane	*112*		*75 - 126*	*02/16/24 18:23*	*02/19/24 21:34*	*1*
Toluene-d8 (Surr)	*104*		*75 - 124*	*02/16/24 18:23*	*02/19/24 21:34*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.028	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
1,2-Dichlorobenzene	<0.20		0.20	0.016	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
1,3-Dichlorobenzene	<0.20		0.20	0.018	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
1,4-Dichlorobenzene	<0.20		0.20	0.019	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.028	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Client Sample ID: 2233V3-1-B235-2
Date Collected: 02/15/24 11:00
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-16
Matrix: Solid
Percent Solids: 81.7

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
2,4,6-Trichlorophenol	<0.39		0.39	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
2,4-Dichlorophenol	<0.39		0.39	0.014	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
2,4-Dimethylphenol	<0.39		0.39	0.089	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
2,4-Dinitrophenol	<0.80		0.80	0.23	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
2,4-Dinitrotoluene	<0.20		0.20	0.023	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
2,6-Dinitrotoluene	<0.20		0.20	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
2-Chloronaphthalene	<0.20		0.20	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
2-Chlorophenol	<0.20		0.20	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
2-Methylnaphthalene	<0.080		0.080	0.0079	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
2-Methylphenol	<0.20		0.20	0.021	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
2-Nitroaniline	<0.20		0.20	0.021	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
2-Nitrophenol	<0.39		0.39	0.027	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
3 & 4 Methylphenol	<0.20		0.20	0.029	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.032	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
3-Nitroaniline	<0.39		0.39	0.018	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.22	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.027	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
4-Chloro-3-methylphenol	<0.39		0.39	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
4-Chloroaniline	<0.80		0.80	0.42	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
4-Nitroaniline	<0.39		0.39	0.029	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
4-Nitrophenol	<0.80		0.80	0.15	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Acenaphthene	<0.039		0.039	0.0081	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Acenaphthylene	<0.039		0.039	0.0067	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Anthracene	<0.039		0.039	0.0081	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Benzo[a]anthracene	<0.039		0.039	0.0084	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Benzo[a]pyrene	<0.039		0.039	0.038	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Benzo[b]fluoranthene	<0.039		0.039	0.038	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Benzo[g,h,i]perylene	<0.039		0.039	0.0086	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Benzo[k]fluoranthene	<0.039		0.039	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.018	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.16	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Butyl benzyl phthalate	<0.20		0.20	0.020	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Carbazole	<0.20		0.20	0.016	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Chrysene	<0.039		0.039	0.010	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Dibenz(a,h)anthracene	<0.039		0.039	0.039	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Dibenzofuran	<0.20		0.20	0.014	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Diethyl phthalate	<0.20		0.20	0.018	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Dimethyl phthalate	<0.20		0.20	0.0086	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Di-n-butyl phthalate	<0.20		0.20	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Di-n-octyl phthalate	<0.39		0.39	0.28	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Fluoranthene	<0.039		0.039	0.0092	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Fluorene	<0.039		0.039	0.012	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Hexachlorobenzene	<0.080		0.080	0.0076	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Hexachlorobutadiene	<0.20		0.20	0.022	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Hexachlorocyclopentadiene	<0.80		0.80	0.42	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Hexachloroethane	<0.20		0.20	0.020	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Client Sample ID: 2233V3-1-B235-2
Date Collected: 02/15/24 11:00
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-16
Matrix: Solid
Percent Solids: 81.7

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.039	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Isophorone	<0.20		0.20	0.020	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Naphthalene	<0.039		0.039	0.0072	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Nitrobenzene	<0.039		0.039	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.0078	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
N-Nitrosodiphenylamine	<0.20		0.20	0.024	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Pentachlorophenol	<0.80		0.80	0.099	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Phenanthrene	<0.039		0.039	0.0086	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Phenol	<0.20		0.20	0.017	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1
Pyrene	<0.039		0.039	0.011	mg/Kg	☼	02/28/24 07:47	02/28/24 22:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*73*		*31 - 143*	*02/28/24 07:47*	*02/28/24 22:19*	*1*
2-Fluorobiphenyl	*64*		*43 - 145*	*02/28/24 07:47*	*02/28/24 22:19*	*1*
2-Fluorophenol	*63*		*31 - 166*	*02/28/24 07:47*	*02/28/24 22:19*	*1*
Nitrobenzene-d5 (Surr)	*60*		*37 - 147*	*02/28/24 07:47*	*02/28/24 22:19*	*1*
Phenol-d5	*61*		*30 - 153*	*02/28/24 07:47*	*02/28/24 22:19*	*1*
Terphenyl-d14 (Surr)	*91*		*42 - 157*	*02/28/24 07:47*	*02/28/24 22:19*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.3		2.3	0.45	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Arsenic	**8.8**		1.1	0.39	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Barium	**42**		1.1	0.13	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Beryllium	**0.76**		0.46	0.11	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Boron	**16**		5.7	0.53	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Cadmium	**0.33**	**B**	0.23	0.041	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Calcium	**35000**		23	3.9	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Chromium	**20**		1.1	0.57	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Cobalt	**8.1**		0.57	0.15	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Copper	**20**		1.1	0.32	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Iron	**21000**		23	12	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Lead	**10**		0.57	0.26	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Magnesium	**20000**		11	5.7	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Manganese	**220**		1.1	0.17	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Nickel	**28**		1.1	0.33	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Potassium	**3900**		57	20	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Selenium	<1.1		1.1	0.67	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Silver	**0.44**	**J**	0.57	0.15	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Sodium	**620**		110	17	mg/Kg	☼	02/28/24 08:57	03/05/24 23:55	1
Thallium	<1.1		1.1	0.57	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Vanadium	**23**		0.57	0.14	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1
Zinc	**64**		2.3	1.0	mg/Kg	☼	02/28/24 08:57	03/04/24 14:51	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		03/01/24 17:15	03/04/24 19:16	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		03/01/24 17:15	03/04/24 19:16	1
Chromium	<0.025		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 19:16	1
Iron	**3.6**		0.40	0.20	mg/L		03/01/24 17:15	03/04/24 19:16	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Client Sample ID: 2233V3-1-B235-2
Date Collected: 02/15/24 11:00
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-16
Matrix: Solid
Percent Solids: 81.7

Method: SW846 6010D - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		03/01/24 17:15	03/04/24 19:16	1
Manganese	**1.5**		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 19:16	1
Nickel	<0.025		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 19:16	1

Method: SW846 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.078**		0.050	0.010	mg/L		03/01/24 17:15	03/04/24 21:11	1
Barium	**0.30**	**J**	0.50	0.050	mg/L		03/01/24 17:15	03/04/24 21:11	1
Beryllium	**0.0050**		0.0040	0.0040	mg/L		03/01/24 17:15	03/04/24 21:11	1
Boron	**0.14**	**J B**	0.40	0.050	mg/L		03/05/24 17:05	03/06/24 12:38	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		03/01/24 17:15	03/04/24 21:11	1
Calcium	**33**		2.5	0.50	mg/L		03/01/24 17:15	03/04/24 21:11	1
Chromium	**0.11**		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:11	1
Cobalt	**0.030**		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:11	1
Iron	**110**		0.40	0.20	mg/L		03/01/24 17:15	03/04/24 21:11	1
Lead	**0.045**		0.0075	0.0075	mg/L		03/01/24 17:15	03/04/24 21:11	1
Manganese	**0.40**	**^2**	0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:11	1
Nickel	**0.11**		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:11	1
Potassium	**31**		2.5	0.50	mg/L		03/01/24 17:15	03/04/24 21:11	1
Selenium	<0.050		0.050	0.020	mg/L		03/01/24 17:15	03/04/24 21:11	1
Silver	<0.025		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:11	1
Zinc	**0.23**	**J**	0.50	0.020	mg/L		03/01/24 17:15	03/04/24 21:11	1

Method: SW846 6020B - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^1+	0.0060	0.0060	mg/L		03/01/24 17:15	03/05/24 01:18	1
Thallium	**0.0020**		0.0020	0.0020	mg/L		03/01/24 17:15	03/06/24 03:27	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00053**		0.00020	0.00020	mg/L		03/04/24 11:10	03/05/24 08:27	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.027**		0.019	0.0099	mg/Kg	☼	02/29/24 14:55	03/01/24 10:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.28		0.28	0.14	mg/Kg	☼	02/27/24 13:30	02/27/24 17:13	1
pH (SW846 9045D)	**7.8**		0.2	0.2	SU			02/22/24 08:36	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Client Sample ID: 2233V3-1-B198
Date Collected: 02/15/24 11:20
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-18
Matrix: Solid
Percent Solids: 85.7

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0013		0.0013	0.00045	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
1,1,2,2-Tetrachloroethane	<0.0013		0.0013	0.00043	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
1,1,2-Trichloroethane	<0.0013		0.0013	0.00058	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
1,1-Dichloroethane	<0.0013		0.0013	0.00046	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
1,1-Dichloroethene	<0.0013		0.0013	0.00046	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
1,2-Dichloroethane	<0.0034		0.0034	0.0011	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
1,2-Dichloropropane	<0.0013		0.0013	0.00035	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
1,3-Dichloropropene, Total	<0.0013		0.0013	0.00047	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
2-Butanone (MEK)	<0.0034		0.0034	0.0015	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
2-Hexanone	<0.0034		0.0034	0.0011	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
4-Methyl-2-pentanone (MIBK)	<0.0034		0.0034	0.0010	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Acetone	<0.013		0.013	0.0059	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Benzene	<0.0013		0.0013	0.00034	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Bromodichloromethane	<0.0013		0.0013	0.00027	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Bromoform	<0.0013		0.0013	0.00039	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Bromomethane	<0.0034	*+	0.0034	0.0013	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Carbon disulfide	<0.0034		0.0034	0.00070	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Carbon tetrachloride	<0.0013		0.0013	0.00039	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Chlorobenzene	<0.0013		0.0013	0.00050	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Chloroethane	<0.0034	*+	0.0034	0.0010	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Chloroform	<0.0013		0.0013	0.00047	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Chloromethane	<0.0034	*+	0.0034	0.0014	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
cis-1,2-Dichloroethene	<0.0013		0.0013	0.00038	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
cis-1,3-Dichloropropene	<0.0013		0.0013	0.00041	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Dibromochloromethane	<0.0013		0.0013	0.00044	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Ethylbenzene	<0.0013		0.0013	0.00065	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Methyl tert-butyl ether	<0.0013		0.0013	0.00040	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Methylene Chloride	<0.0034		0.0034	0.0013	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Styrene	<0.0013		0.0013	0.00041	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Tetrachloroethene	<0.0013		0.0013	0.00046	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Toluene	<0.0013		0.0013	0.00034	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
trans-1,2-Dichloroethene	<0.0013		0.0013	0.00060	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
trans-1,3-Dichloropropene	<0.0013		0.0013	0.00047	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Trichloroethene	<0.0013		0.0013	0.00046	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Vinyl chloride	<0.0013	*+	0.0013	0.00060	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1
Xylenes, Total	<0.0027		0.0027	0.00043	mg/Kg	☼	02/16/24 18:23	02/19/24 22:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 134*	*02/16/24 18:23*	*02/19/24 22:23*	*1*
4-Bromofluorobenzene (Surr)	*83*		*75 - 131*	*02/16/24 18:23*	*02/19/24 22:23*	*1*
Dibromofluoromethane	*111*		*75 - 126*	*02/16/24 18:23*	*02/19/24 22:23*	*1*
Toluene-d8 (Surr)	*104*		*75 - 124*	*02/16/24 18:23*	*02/19/24 22:23*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.027	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
1,2-Dichlorobenzene	<0.19		0.19	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
1,3-Dichlorobenzene	<0.19		0.19	0.017	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
1,4-Dichlorobenzene	<0.19		0.19	0.018	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.027	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1

Client Sample ID: 2233V3-1-B198
Date Collected: 02/15/24 11:20
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-18
Matrix: Solid
Percent Solids: 85.7

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.38		0.38	0.014	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
2,4,6-Trichlorophenol	<0.38		0.38	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
2,4-Dichlorophenol	<0.38		0.38	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
2,4-Dimethylphenol	<0.38		0.38	0.085	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
2,4-Dinitrophenol	<0.77		0.77	0.22	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
2,4-Dinitrotoluene	<0.19		0.19	0.022	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
2,6-Dinitrotoluene	<0.19		0.19	0.013	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
2-Chloronaphthalene	<0.19		0.19	0.014	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
2-Chlorophenol	<0.19		0.19	0.012	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
2-Methylnaphthalene	<0.077		0.077	0.0076	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
2-Methylphenol	<0.19		0.19	0.020	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
2-Nitroaniline	<0.19		0.19	0.020	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
2-Nitrophenol	<0.38		0.38	0.026	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
3 & 4 Methylphenol	<0.19		0.19	0.028	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.031	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
3-Nitroaniline	<0.38		0.38	0.017	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.21	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.026	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
4-Chloro-3-methylphenol	<0.38		0.38	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
4-Chloroaniline	<0.77		0.77	0.40	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
4-Nitroaniline	<0.38		0.38	0.028	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
4-Nitrophenol	<0.77		0.77	0.14	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Acenaphthene	<0.038		0.038	0.0077	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Acenaphthylene	<0.038		0.038	0.0064	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Anthracene	<0.038		0.038	0.0078	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Benzo[a]anthracene	<0.038		0.038	0.0081	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Benzo[a]pyrene	<0.038		0.038	0.037	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Benzo[b]fluoranthene	<0.038		0.038	0.036	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Benzo[g,h,i]perylene	<0.038		0.038	0.0082	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Benzo[k]fluoranthene	<0.038		0.038	0.014	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.014	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.018	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.15	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Butyl benzyl phthalate	<0.19		0.19	0.019	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Carbazole	<0.19		0.19	0.015	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Dibenz(a,h)anthracene	<0.038		0.038	0.038	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Dibenzofuran	<0.19		0.19	0.014	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Diethyl phthalate	<0.19		0.19	0.017	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Dimethyl phthalate	<0.19		0.19	0.0083	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Di-n-butyl phthalate	<0.19		0.19	0.012	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Di-n-octyl phthalate	<0.38		0.38	0.27	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Fluoranthene	<0.038		0.038	0.0088	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Fluorene	<0.038		0.038	0.011	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Hexachlorobenzene	<0.077		0.077	0.0073	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Hexachlorobutadiene	<0.19		0.19	0.021	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Hexachlorocyclopentadiene	<0.77		0.77	0.40	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Hexachloroethane	<0.19		0.19	0.019	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Client Sample ID: 2233V3-1-B198
Date Collected: 02/15/24 11:20
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-18
Matrix: Solid
Percent Solids: 85.7

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.037	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Isophorone	<0.19		0.19	0.020	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Naphthalene	<0.038		0.038	0.0069	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Nitrobenzene	<0.038		0.038	0.012	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.0075	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
N-Nitrosodiphenylamine	<0.19		0.19	0.023	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Pentachlorophenol	<0.77		0.77	0.095	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Phenanthrene	<0.038		0.038	0.0083	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Phenol	<0.19		0.19	0.016	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1
Pyrene	<0.038		0.038	0.010	mg/Kg	☼	02/28/24 07:47	02/28/24 19:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*68*		*31 - 143*	*02/28/24 07:47*	*02/28/24 19:49*	*1*
2-Fluorobiphenyl	*51*		*43 - 145*	*02/28/24 07:47*	*02/28/24 19:49*	*1*
2-Fluorophenol	*54*		*31 - 166*	*02/28/24 07:47*	*02/28/24 19:49*	*1*
Nitrobenzene-d5 (Surr)	*48*		*37 - 147*	*02/28/24 07:47*	*02/28/24 19:49*	*1*
Phenol-d5	*53*		*30 - 153*	*02/28/24 07:47*	*02/28/24 19:49*	*1*
Terphenyl-d14 (Surr)	*85*		*42 - 157*	*02/28/24 07:47*	*02/28/24 19:49*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.3		2.3	0.45	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Arsenic	**8.1**		1.2	0.40	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Barium	**65**		1.2	0.13	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Beryllium	**0.65**		0.46	0.11	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Boron	**13**		5.8	0.54	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Cadmium	**0.46**	**B**	0.23	0.042	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Calcium	**39000**		23	3.9	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Chromium	**17**		1.2	0.58	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Cobalt	**9.1**		0.58	0.15	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Copper	**25**		1.2	0.33	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Iron	**22000**		23	12	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Lead	**13**		0.58	0.27	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Magnesium	**26000**		12	5.8	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Manganese	**280**		1.2	0.17	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Nickel	**26**		1.2	0.34	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Potassium	**3000**		58	21	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Selenium	<1.2		1.2	0.68	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Silver	**0.53**	**J**	0.58	0.15	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Sodium	**1100**		120	17	mg/Kg	☼	02/28/24 08:57	03/06/24 00:04	1
Thallium	<1.2		1.2	0.58	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Vanadium	**23**		0.58	0.14	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1
Zinc	**76**		2.3	1.0	mg/Kg	☼	02/28/24 08:57	03/04/24 14:57	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		03/01/24 17:15	03/04/24 19:24	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		03/01/24 17:15	03/04/24 19:24	1
Chromium	<0.025		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 19:24	1
Iron	**2.7**		0.40	0.20	mg/L		03/01/24 17:15	03/04/24 19:24	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Client Sample ID: 2233V3-1-B198
Date Collected: 02/15/24 11:20
Date Received: 02/16/24 12:00

Lab Sample ID: 500-246323-18
Matrix: Solid
Percent Solids: 85.7

Method: SW846 6010D - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		03/01/24 17:15	03/04/24 19:24	1
Manganese	**1.2**		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 19:24	1
Nickel	<0.025		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 19:24	1

Method: SW846 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.11**		0.050	0.010	mg/L		03/01/24 17:15	03/04/24 21:17	1
Barium	**0.50**		0.50	0.050	mg/L		03/01/24 17:15	03/04/24 21:17	1
Beryllium	**0.0072**		0.0040	0.0040	mg/L		03/01/24 17:15	03/04/24 21:17	1
Boron	**0.15**	**J B**	0.40	0.050	mg/L		03/05/24 17:05	03/06/24 12:46	1
Cadmium	**0.0028**	**J**	0.0050	0.0020	mg/L		03/01/24 17:15	03/04/24 21:17	1
Calcium	**26**		2.5	0.50	mg/L		03/01/24 17:15	03/04/24 21:17	1
Chromium	**0.16**		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:17	1
Cobalt	**0.063**		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:17	1
Iron	**230**		0.40	0.20	mg/L		03/01/24 17:15	03/04/24 21:17	1
Lead	**0.10**		0.0075	0.0075	mg/L		03/01/24 17:15	03/04/24 21:17	1
Manganese	**0.73**	**^2**	0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:17	1
Nickel	**0.22**		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:17	1
Potassium	**35**		2.5	0.50	mg/L		03/01/24 17:15	03/04/24 21:17	1
Selenium	<0.050		0.050	0.020	mg/L		03/01/24 17:15	03/04/24 21:17	1
Silver	<0.025		0.025	0.010	mg/L		03/01/24 17:15	03/04/24 21:17	1
Zinc	**0.66**		0.50	0.020	mg/L		03/01/24 17:15	03/04/24 21:17	1

Method: SW846 6020B - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		03/01/24 17:15	03/09/24 17:11	1

Method: SW846 6020B - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^1+	0.0060	0.0060	mg/L		03/01/24 17:15	03/05/24 01:25	1
Thallium	**0.0039**		0.0020	0.0020	mg/L		03/01/24 17:15	03/09/24 20:51	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		03/04/24 11:10	03/05/24 08:31	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.031**		0.017	0.0092	mg/Kg	☼	02/29/24 14:55	03/01/24 10:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.26		0.26	0.13	mg/Kg	☼	02/28/24 10:38	02/28/24 12:10	1
pH (SW846 9045D)	**8.7**		0.2	0.2	SU			02/22/24 08:36	1

Definitions/Glossary

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
*3	ISTD response or retention time outside acceptable limits.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F3	Duplicate RPD exceeds the control limit
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246323-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-24

ANDREWS ENGINEERING

CHAIN OF CUSTODY RECORD

Client Contact	Laboratory	Project	COC
Andrews Engineering, Inc 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact Colleen Grey email cgrey@andrews-eng com 500-246323 COC	Lab **Eurofins - Chicago** Address **2417 Bond Street** **University Park, IL 60484** Phone **708-534-5200** Contact **Jodie Bracken** email Jodie Bracken@ET EurofinsUS.com	Project Name AE8-021A Project No PTB/Wo#: 195-002/21A TAT ☒ 15 BD ☐ 10 BD ☐ 5 BD ☐ 2 BD ___ Other **Sampler:** C. Nelson	COC No 1 of 3 Lab Job No.: 500-246323 Sample Temp: 2.1→2.5 2.0→1.3 1.5→0.9 2.6→2.9

Special Instructions:

See Table 2 for complete parameter lists and minimum reporting limits.

* If Total RCRA metal (mg/kg) result exceeds the Soil Toxicity Characteristics Limit (Table 3), run TCLP for that specific RCRA metal

** If SPLP result exceeds Class I Standard, run TCLP for that specific parameter

*** If total cyanide exceeds MAC, run ASTM D3987 (Neutral Leach) cyanide

Matrix Key:

- W Water
- S Soil
- SL Sludge
- S Sediment
- L Leachate
- DW Drinking Water
- OL Oil
- O Other

Lab ID	Sample ID	Sample Date	Sample Time	Matrix	VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization				Comments
1	2233V3-1-B208-1	2/15/24	8:30	Soil	X	X					X	X	X	X	X					
2	2233V3-1-B208-2		8:40																	
3	2233V3-1-B208-3		8:50																	
4	2233V3-1-B206-1		9:00																	
5	2233V3-1-B206-2		9:10																	
6	2233V3-1-B229-1		9:20																	
7	2233V3-1-B229-2		9:30																	
8	2233V3-1-B246-1		9:40																	
9	2233V3-1-B246-2		9:50																	
10	2233V3-1-B242-1		10:00																	
11	2233V-1-B242-2	↓	10:10	↓	↓	↓					↓	↓	↓	↓	↓					

Relinquished by	Date/Time	Received by	Date/Time
Chad Nelson	2/16/24	T. J. Elkins	2/16/24 1105
T. J. Elkins	2/16/24 1200	Chris Scott	2/16/24 1200

ANDREWS ENGINEERING

CHAIN OF CUSTODY RECORD

Client Contact	Laboratory	Project Name	COC No
Andrews Engineering, Inc 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact Colleen Grey email cgrey@andrews-eng com	Lab **Eurofins - Chicago** Address **2417 Bond Street** **University Park, IL 60484** Phone **708-534-5200** Contact **Jodie Bracken** email Jodie Bracken@ET EurofinsUS com	AE8-021A Project No PSB/WO#: 195-002/21A TAT ☒ 15 BD ☐ 10 BD ☐ 5 BD ☐ 2 BD ____ Other **Sampler:** C. Nelson	2 of 3 Lab Job No.: 500-246323 Sample Temp:

Special Instructions:

See Table 2 for complete parameter lists and minimum reporting limits

* If Total RCRA metal (mg/kg) result exceeds the Soil Toxicity Characteristics Limit (Table 3), run TCLP for that specific RCRA metal

** If SPLP result exceeds Class I Standard, run TCLP for that specific parameter

*** If total cyanide exceeds MAC, run ASTM D3987 (Neutral Leach) cyanide

Matrix Key:

W Water
S Soil
SL Sludge
S Sediment
L Leachate
DW Drinking Water
OL Oil
O Other

Lab ID	Sample ID	Sample Date	Sample Time	Matrix	ANALYSES: VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization				Comments
12	2233V3-1-B241-1	2/15/24	10:20	Soil	X	X					X	X	X	X	X					
13	2233V3-1-B241-2		10:30																	
14	2233V3-1-B235-1		10:46																	
15	2233V3-1-B235-1 MVA		10:56																	
16	2233V3-1-B235-2		11:00																	
17	2233V3-1-B194		11:10																	
18	2233V3-1-B198		11:20																	
19	2233V3-1-B231-1		11:30																	
20	2233V3-1-B231-2		11:40																	
21	2233V3-1-B217-1		11:50																	
22	2233V3-1-B217-2		12:06																	

Relinquished by	Date/Time	Received by	Date/Time
Chad Nelson	2/16/24	D. G. Ellison	2/16/24 1105
D. G. Ellison	2/16/24 1200	Rhi Scott	2/16/24 1200

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Colleen Grey
Andrews Engineering Inc.
3300 Ginger Creek Drive
Springfield, Illinois 62711

Generated 3/1/2024 5:35:51 PM

JOB DESCRIPTION

IDOT - AE8-021A

JOB NUMBER

500-245966-1

Eurofins Chicago
2417 Bond Street
University Park IL 60484

See page two for job notes and contact information.

Eurofins Chicago

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

Authorization

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Client Sample ID: 2233V3-1-B213-1

Date Collected: 02/08/24 10:00
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-8

Matrix: Solid
Percent Solids: 73.8

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
2-Butanone (MEK)	**0.0072**		0.0043	0.0019	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Acetone	**0.053**		0.017	0.0075	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Vinyl chloride	<0.0017		0.0017	0.00077	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1
Xylenes, Total	<0.0035		0.0035	0.00055	mg/Kg	☼	02/09/24 17:53	02/13/24 13:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 134*	*02/09/24 17:53*	*02/13/24 13:32*	*1*
4-Bromofluorobenzene (Surr)	*100*		*75 - 131*	*02/09/24 17:53*	*02/13/24 13:32*	*1*
Dibromofluoromethane	*109*		*75 - 126*	*02/09/24 17:53*	*02/13/24 13:32*	*1*
Toluene-d8 (Surr)	*105*		*75 - 124*	*02/09/24 17:53*	*02/13/24 13:32*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.22		0.22	0.031	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
1,2-Dichlorobenzene	<0.22		0.22	0.018	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
1,3-Dichlorobenzene	<0.22		0.22	0.020	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
1,4-Dichlorobenzene	<0.22		0.22	0.021	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
2,2'-oxybis[1-chloropropane]	<0.22		0.22	0.031	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1

Client Sample ID: 2233V3-1-B213-1
Date Collected: 02/08/24 10:00
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-8
Matrix: Solid
Percent Solids: 73.8

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.43		0.43	0.016	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
2,4,6-Trichlorophenol	<0.43		0.43	0.015	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
2,4-Dichlorophenol	<0.43		0.43	0.015	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
2,4-Dimethylphenol	<0.43		0.43	0.098	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
2,4-Dinitrophenol	<0.88		0.88	0.25	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
2,4-Dinitrotoluene	<0.22		0.22	0.025	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
2,6-Dinitrotoluene	<0.22		0.22	0.015	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
2-Chloronaphthalene	<0.22		0.22	0.016	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
2-Chlorophenol	<0.22		0.22	0.014	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
2-Methylnaphthalene	<0.088		0.088	0.0088	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
2-Methylphenol	<0.22		0.22	0.023	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
2-Nitroaniline	<0.22		0.22	0.023	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
2-Nitrophenol	<0.43		0.43	0.030	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
3 & 4 Methylphenol	<0.22		0.22	0.032	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
3,3'-Dichlorobenzidine	<0.22		0.22	0.036	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
3-Nitroaniline	<0.43		0.43	0.020	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
4,6-Dinitro-2-methylphenol	<0.88		0.88	0.25	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
4-Bromophenyl phenyl ether	<0.22		0.22	0.030	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
4-Chloro-3-methylphenol	<0.43		0.43	0.017	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
4-Chloroaniline	<0.88		0.88	0.46	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
4-Chlorophenyl phenyl ether	<0.22		0.22	0.057	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
4-Nitroaniline	<0.43		0.43	0.032	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
4-Nitrophenol	<0.88		0.88	0.16	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Acenaphthene	<0.043		0.043	0.0089	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Acenaphthylene	<0.043		0.043	0.0074	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Anthracene	<0.043		0.043	0.0089	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Benzo[a]anthracene	**0.024**	**J**	0.043	0.0093	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Benzo[a]pyrene	**0.058**		0.043	0.042	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Benzo[b]fluoranthene	**0.073**		0.043	0.042	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Benzo[g,h,i]perylene	**0.056**		0.043	0.0095	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Benzo[k]fluoranthene	<0.043		0.043	0.017	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Bis(2-chloroethoxy)methane	<0.22		0.22	0.016	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Bis(2-chloroethyl)ether	<0.22		0.22	0.020	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Bis(2-ethylhexyl) phthalate	<0.22		0.22	0.17	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Butyl benzyl phthalate	<0.22		0.22	0.022	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Carbazole	<0.22		0.22	0.017	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Chrysene	**0.038**	**J**	0.043	0.012	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Dibenz(a,h)anthracene	<0.043		0.043	0.043	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Dibenzofuran	<0.22		0.22	0.016	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Diethyl phthalate	<0.22		0.22	0.020	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Dimethyl phthalate	<0.22		0.22	0.0095	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Di-n-butyl phthalate	<0.22		0.22	0.014	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Di-n-octyl phthalate	<0.43		0.43	0.31	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Fluoranthene	**0.054**		0.043	0.010	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Fluorene	<0.043		0.043	0.013	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Hexachlorobenzene	<0.088		0.088	0.0084	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Hexachlorobutadiene	<0.22		0.22	0.025	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Hexachlorocyclopentadiene	<0.88		0.88	0.46	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Hexachloroethane	<0.22		0.22	0.022	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-245966-1

Client Sample ID: 2233V3-1-B213-1
Date Collected: 02/08/24 10:00
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-8
Matrix: Solid
Percent Solids: 73.8

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	**0.042**	**J**	0.043	0.042	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Isophorone	<0.22		0.22	0.022	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Naphthalene	**0.013**	**J**	0.043	0.0079	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Nitrobenzene	<0.043		0.043	0.014	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
N-Nitrosodi-n-propylamine	<0.088		0.088	0.0086	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
N-Nitrosodiphenylamine	<0.22		0.22	0.026	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Pentachlorophenol	<0.88		0.88	0.11	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Phenanthrene	**0.031**	**J**	0.043	0.0095	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Phenol	<0.22		0.22	0.019	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1
Pyrene	**0.040**	**J**	0.043	0.012	mg/Kg	☼	02/13/24 07:34	02/14/24 19:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*68*		*31 - 143*	*02/13/24 07:34*	*02/14/24 19:36*	*1*
2-Fluorobiphenyl	*60*		*43 - 145*	*02/13/24 07:34*	*02/14/24 19:36*	*1*
2-Fluorophenol	*60*		*31 - 166*	*02/13/24 07:34*	*02/14/24 19:36*	*1*
Nitrobenzene-d5 (Surr)	*53*		*37 - 147*	*02/13/24 07:34*	*02/14/24 19:36*	*1*
Phenol-d5	*59*		*30 - 153*	*02/13/24 07:34*	*02/14/24 19:36*	*1*
Terphenyl-d14 (Surr)	*71*		*42 - 157*	*02/13/24 07:34*	*02/14/24 19:36*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.5		2.5	0.49	mg/Kg	☼	02/13/24 09:23	02/14/24 23:52	1
Arsenic	**8.6**		1.3	0.43	mg/Kg	☼	02/13/24 09:23	02/14/24 23:52	1
Barium	**140**		1.3	0.14	mg/Kg	☼	02/13/24 09:23	02/14/24 23:52	1
Beryllium	**0.94**		0.50	0.12	mg/Kg	☼	02/13/24 09:23	02/14/24 23:52	1
Boron	<6.3		6.3	0.59	mg/Kg	☼	02/13/24 09:23	02/20/24 15:40	1
Cadmium	**0.55**		0.25	0.045	mg/Kg	☼	02/13/24 09:23	02/14/24 23:52	1
Calcium	**5200**	**B**	25	4.3	mg/Kg	☼	02/13/24 09:23	02/14/24 23:52	1
Chromium	**21**		1.3	0.62	mg/Kg	☼	02/13/24 09:23	02/14/24 23:52	1
Cobalt	**8.2**		0.63	0.16	mg/Kg	☼	02/13/24 09:23	02/14/24 23:52	1
Copper	**30**		1.3	0.35	mg/Kg	☼	02/13/24 09:23	02/14/24 23:52	1
Iron	**23000**		25	13	mg/Kg	☼	02/13/24 09:23	02/14/24 23:52	1
Lead	**27**		0.63	0.29	mg/Kg	☼	02/13/24 09:23	02/15/24 23:50	1
Magnesium	**4400**		13	6.2	mg/Kg	☼	02/13/24 09:23	02/14/24 23:52	1
Manganese	**270**		1.3	0.18	mg/Kg	☼	02/13/24 09:23	02/14/24 23:52	1
Nickel	**25**		1.3	0.37	mg/Kg	☼	02/13/24 09:23	02/14/24 23:52	1
Potassium	**1900**		63	22	mg/Kg	☼	02/13/24 09:23	02/14/24 23:52	1
Selenium	**1.1**	**J**	1.3	0.74	mg/Kg	☼	02/13/24 09:23	02/14/24 23:52	1
Silver	<0.63		0.63	0.16	mg/Kg	☼	02/13/24 09:23	02/14/24 23:52	1
Sodium	**1100**		130	19	mg/Kg	☼	02/13/24 09:23	02/14/24 23:52	1
Thallium	<1.3		1.3	0.63	mg/Kg	☼	02/13/24 09:23	02/14/24 23:52	1
Vanadium	**34**		0.63	0.15	mg/Kg	☼	02/13/24 09:23	02/14/24 23:52	1
Zinc	**120**		2.5	1.1	mg/Kg	☼	02/13/24 09:23	02/20/24 15:40	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1.1**		0.40	0.20	mg/L		02/21/24 07:56	02/22/24 15:05	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/21/24 07:56	02/22/24 15:05	1
Manganese	**2.8**		0.025	0.010	mg/L		02/21/24 07:56	02/22/24 15:05	1

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-245966-1

Client Sample ID: 2233V3-1-B213-1

Date Collected: 02/08/24 10:00
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-8

Matrix: Solid
Percent Solids: 73.8

Method: SW846 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.015**	**J**	0.050	0.010	mg/L		02/21/24 07:54	02/22/24 17:03	1
Barium	**0.33**	**J**	0.50	0.050	mg/L		02/21/24 07:54	02/22/24 17:03	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/24 07:54	02/22/24 17:03	1
Boron	<0.10		0.10	0.050	mg/L		02/21/24 07:54	02/22/24 17:03	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/21/24 07:54	02/22/24 17:03	1
Calcium	**12**		2.5	0.50	mg/L		02/21/24 07:54	02/22/24 17:03	1
Chromium	**0.077**		0.025	0.010	mg/L		02/21/24 07:54	02/22/24 17:03	1
Cobalt	**0.011**	**J**	0.025	0.010	mg/L		02/21/24 07:54	02/22/24 17:03	1
Iron	**64**		0.40	0.20	mg/L		02/21/24 07:54	02/22/24 17:03	1
Lead	**0.048**		0.0075	0.0075	mg/L		02/21/24 07:54	02/22/24 17:03	1
Manganese	**0.37**		0.025	0.010	mg/L		02/21/24 07:54	02/22/24 17:03	1
Nickel	**0.050**		0.025	0.010	mg/L		02/21/24 07:54	02/22/24 17:03	1
Potassium	**8.1**		2.5	0.50	mg/L		02/21/24 07:54	02/22/24 17:03	1
Selenium	<0.050		0.050	0.020	mg/L		02/21/24 07:54	02/22/24 17:03	1
Silver	<0.025		0.025	0.010	mg/L		02/21/24 07:54	02/22/24 17:03	1
Zinc	**0.23**	**J**	0.50	0.020	mg/L		02/21/24 07:54	02/23/24 13:21	1

Method: SW846 6020B - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^5- ^1+	0.0060	0.0060	mg/L		02/21/24 07:54	02/21/24 20:02	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/21/24 07:54	02/21/24 20:02	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/21/24 10:00	02/22/24 09:56	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.061**		0.021	0.011	mg/Kg	☼	02/20/24 12:55	02/21/24 08:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.31		0.31	0.15	mg/Kg	☼	02/21/24 13:32	02/22/24 11:30	1
pH (SW846 9045D)	**6.3**		0.2	0.2	SU			02/15/24 15:21	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-245966-1

Client Sample ID: 2233V3-1-B213-2
Date Collected: 02/08/24 10:10
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-9
Matrix: Solid
Percent Solids: 84.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0015		0.0015	0.00049	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00047	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00063	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
1,1-Dichloroethane	<0.0015		0.0015	0.00051	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
1,1-Dichloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
1,2-Dichloroethane	<0.0037		0.0037	0.0012	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
1,2-Dichloropropane	<0.0015		0.0015	0.00038	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
1,3-Dichloropropene, Total	<0.0015		0.0015	0.00052	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
2-Butanone (MEK)	<0.0037		0.0037	0.0016	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
2-Hexanone	<0.0037		0.0037	0.0012	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
4-Methyl-2-pentanone (MIBK)	<0.0037		0.0037	0.0011	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Acetone	<0.015		0.015	0.0064	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Benzene	<0.0015		0.0015	0.00038	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Bromodichloromethane	<0.0015		0.0015	0.00030	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Bromoform	<0.0015		0.0015	0.00043	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Bromomethane	<0.0037		0.0037	0.0014	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Carbon disulfide	<0.0037		0.0037	0.00077	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Carbon tetrachloride	<0.0015		0.0015	0.00043	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Chlorobenzene	<0.0015		0.0015	0.00054	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Chloroethane	<0.0037		0.0037	0.0011	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Chloroform	<0.0015		0.0015	0.00051	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Chloromethane	<0.0037		0.0037	0.0015	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00041	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00044	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Dibromochloromethane	<0.0015		0.0015	0.00048	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Ethylbenzene	<0.0015		0.0015	0.00071	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00043	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Methylene Chloride	<0.0037		0.0037	0.0015	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Styrene	<0.0015		0.0015	0.00045	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Tetrachloroethene	<0.0015		0.0015	0.00050	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Toluene	<0.0015		0.0015	0.00037	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00065	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00052	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Trichloroethene	<0.0015		0.0015	0.00050	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Vinyl chloride	<0.0015		0.0015	0.00065	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1
Xylenes, Total	<0.0029		0.0029	0.00047	mg/Kg	☼	02/09/24 17:53	02/13/24 13:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*70 - 134*	*02/09/24 17:53*	*02/13/24 13:57*	*1*
4-Bromofluorobenzene (Surr)	*98*		*75 - 131*	*02/09/24 17:53*	*02/13/24 13:57*	*1*
Dibromofluoromethane	*109*		*75 - 126*	*02/09/24 17:53*	*02/13/24 13:57*	*1*
Toluene-d8 (Surr)	*103*		*75 - 124*	*02/09/24 17:53*	*02/13/24 13:57*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.027	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
1,2-Dichlorobenzene	<0.19		0.19	0.015	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
1,3-Dichlorobenzene	<0.19		0.19	0.017	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
1,4-Dichlorobenzene	<0.19		0.19	0.018	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.027	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1

Client Sample ID: 2233V3-1-B213-2
Date Collected: 02/08/24 10:10
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-9
Matrix: Solid
Percent Solids: 84.9

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.38		0.38	0.014	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
2,4,6-Trichlorophenol	<0.38		0.38	0.013	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
2,4-Dichlorophenol	<0.38		0.38	0.013	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
2,4-Dimethylphenol	<0.38		0.38	0.085	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
2,4-Dinitrophenol	<0.77		0.77	0.22	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
2,4-Dinitrotoluene	<0.19		0.19	0.022	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
2,6-Dinitrotoluene	<0.19		0.19	0.013	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
2-Chloronaphthalene	<0.19		0.19	0.014	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
2-Chlorophenol	<0.19		0.19	0.012	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
2-Methylnaphthalene	<0.077		0.077	0.0076	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
2-Methylphenol	<0.19		0.19	0.020	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
2-Nitroaniline	<0.19		0.19	0.020	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
2-Nitrophenol	<0.38		0.38	0.026	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
3 & 4 Methylphenol	<0.19		0.19	0.028	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.031	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
3-Nitroaniline	<0.38		0.38	0.017	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.21	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.026	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
4-Chloro-3-methylphenol	<0.38		0.38	0.015	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
4-Chloroaniline	<0.77		0.77	0.40	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
4-Nitroaniline	<0.38		0.38	0.028	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
4-Nitrophenol	<0.77		0.77	0.14	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Acenaphthene	<0.038		0.038	0.0077	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Acenaphthylene	<0.038		0.038	0.0064	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Anthracene	<0.038		0.038	0.0078	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Benzo[a]anthracene	<0.038		0.038	0.0081	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Benzo[a]pyrene	<0.038		0.038	0.037	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Benzo[b]fluoranthene	**0.039**		0.038	0.036	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Benzo[g,h,i]perylene	**0.037**	**J**	0.038	0.0082	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Benzo[k]fluoranthene	<0.038		0.038	0.014	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.014	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.018	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.15	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Butyl benzyl phthalate	<0.19		0.19	0.019	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Carbazole	<0.19		0.19	0.015	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Dibenz(a,h)anthracene	<0.038		0.038	0.038	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Dibenzofuran	<0.19		0.19	0.014	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Diethyl phthalate	<0.19		0.19	0.017	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Dimethyl phthalate	<0.19		0.19	0.0083	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Di-n-butyl phthalate	<0.19		0.19	0.012	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Di-n-octyl phthalate	<0.38		0.38	0.27	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Fluoranthene	<0.038		0.038	0.0088	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Fluorene	<0.038		0.038	0.011	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Hexachlorobenzene	<0.077		0.077	0.0073	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Hexachlorobutadiene	<0.19		0.19	0.021	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Hexachlorocyclopentadiene	<0.77		0.77	0.40	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Hexachloroethane	<0.19		0.19	0.019	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-245966-1

Client Sample ID: 2233V3-1-B213-2

Date Collected: 02/08/24 10:10
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-9

Matrix: Solid
Percent Solids: 84.9

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.037	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Isophorone	<0.19		0.19	0.020	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Naphthalene	<0.038		0.038	0.0069	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Nitrobenzene	<0.038		0.038	0.012	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.0075	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
N-Nitrosodiphenylamine	<0.19		0.19	0.023	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Pentachlorophenol	<0.77		0.77	0.095	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Phenanthrene	<0.038		0.038	0.0083	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Phenol	<0.19		0.19	0.016	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1
Pyrene	<0.038		0.038	0.010	mg/Kg	☼	02/13/24 07:34	02/14/24 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*69*		*31 - 143*	*02/13/24 07:34*	*02/14/24 17:30*	*1*
2-Fluorobiphenyl	*59*		*43 - 145*	*02/13/24 07:34*	*02/14/24 17:30*	*1*
2-Fluorophenol	*60*		*31 - 166*	*02/13/24 07:34*	*02/14/24 17:30*	*1*
Nitrobenzene-d5 (Surr)	*59*		*37 - 147*	*02/13/24 07:34*	*02/14/24 17:30*	*1*
Phenol-d5	*59*		*30 - 153*	*02/13/24 07:34*	*02/14/24 17:30*	*1*
Terphenyl-d14 (Surr)	*79*		*42 - 157*	*02/13/24 07:34*	*02/14/24 17:30*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.3		2.3	0.44	mg/Kg	☼	02/13/24 09:23	02/15/24 00:05	1
Arsenic	**8.8**		1.1	0.39	mg/Kg	☼	02/13/24 09:23	02/15/24 00:05	1
Barium	**42**		1.1	0.13	mg/Kg	☼	02/13/24 09:23	02/15/24 00:05	1
Beryllium	**0.72**		0.45	0.11	mg/Kg	☼	02/13/24 09:23	02/15/24 00:05	1
Boron	**4.3**	**J**	5.6	0.52	mg/Kg	☼	02/13/24 09:23	02/20/24 15:44	1
Cadmium	**0.26**		0.23	0.041	mg/Kg	☼	02/13/24 09:23	02/15/24 00:05	1
Calcium	**38000**	**B**	23	3.8	mg/Kg	☼	02/13/24 09:23	02/15/24 00:05	1
Chromium	**17**		1.1	0.56	mg/Kg	☼	02/13/24 09:23	02/15/24 00:05	1
Cobalt	**7.7**		0.56	0.15	mg/Kg	☼	02/13/24 09:23	02/15/24 00:05	1
Copper	**28**		1.1	0.32	mg/Kg	☼	02/13/24 09:23	02/15/24 00:05	1
Iron	**27000**		23	12	mg/Kg	☼	02/13/24 09:23	02/15/24 00:05	1
Lead	**13**		0.56	0.26	mg/Kg	☼	02/13/24 09:23	02/15/24 23:53	1
Magnesium	**26000**		11	5.6	mg/Kg	☼	02/13/24 09:23	02/15/24 00:05	1
Manganese	**350**		1.1	0.16	mg/Kg	☼	02/13/24 09:23	02/15/24 00:05	1
Nickel	**27**		1.1	0.33	mg/Kg	☼	02/13/24 09:23	02/15/24 00:05	1
Potassium	**2200**		56	20	mg/Kg	☼	02/13/24 09:23	02/15/24 00:05	1
Selenium	**0.69**	**J**	1.1	0.66	mg/Kg	☼	02/13/24 09:23	02/15/24 00:05	1
Silver	<0.56		0.56	0.15	mg/Kg	☼	02/13/24 09:23	02/16/24 18:21	1
Sodium	**440**		110	17	mg/Kg	☼	02/13/24 09:23	02/15/24 00:05	1
Thallium	<1.1		1.1	0.56	mg/Kg	☼	02/13/24 09:23	02/15/24 00:05	1
Vanadium	**23**		0.56	0.13	mg/Kg	☼	02/13/24 09:23	02/15/24 00:05	1
Zinc	**100**		2.3	0.99	mg/Kg	☼	02/13/24 09:23	02/20/24 15:44	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		02/21/24 07:56	02/22/24 15:09	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/24 07:56	02/22/24 15:09	1
Chromium	<0.025		0.025	0.010	mg/L		02/21/24 07:56	02/22/24 15:09	1
Iron	**0.47**		0.40	0.20	mg/L		02/21/24 07:56	02/22/24 15:09	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-245966-1

Client Sample ID: 2233V3-1-B213-2

Date Collected: 02/08/24 10:10
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-9

Matrix: Solid
Percent Solids: 84.9

Method: SW846 6010D - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		02/21/24 07:56	02/22/24 15:09	1
Manganese	**1.9**		0.025	0.010	mg/L		02/21/24 07:56	02/22/24 15:09	1
Nickel	<0.025		0.025	0.010	mg/L		02/21/24 07:56	02/22/24 15:09	1

Method: SW846 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.054**		0.050	0.010	mg/L		02/21/24 07:54	02/22/24 17:07	1
Barium	**0.35**	**J**	0.50	0.050	mg/L		02/21/24 07:54	02/22/24 17:07	1
Beryllium	**0.0052**		0.0040	0.0040	mg/L		02/21/24 07:54	02/22/24 17:07	1
Boron	**0.054**	**J**	0.10	0.050	mg/L		02/21/24 07:54	02/22/24 17:07	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/21/24 07:54	02/22/24 17:07	1
Calcium	**21**		2.5	0.50	mg/L		02/21/24 07:54	02/22/24 17:07	1
Chromium	**0.13**		0.025	0.010	mg/L		02/21/24 07:54	02/22/24 17:07	1
Cobalt	**0.050**		0.025	0.010	mg/L		02/21/24 07:54	02/22/24 17:07	1
Iron	**170**		0.40	0.20	mg/L		02/21/24 07:54	02/22/24 17:07	1
Lead	**0.10**		0.0075	0.0075	mg/L		02/21/24 07:54	02/22/24 17:07	1
Manganese	**1.0**		0.025	0.010	mg/L		02/21/24 07:54	02/22/24 17:07	1
Nickel	**0.18**		0.025	0.010	mg/L		02/21/24 07:54	02/22/24 17:07	1
Potassium	**23**		2.5	0.50	mg/L		02/21/24 07:54	02/22/24 17:07	1
Selenium	<0.050		0.050	0.020	mg/L		02/21/24 07:54	02/22/24 17:07	1
Silver	<0.025		0.025	0.010	mg/L		02/21/24 07:54	02/22/24 17:07	1
Zinc	**0.54**		0.50	0.020	mg/L		02/21/24 07:54	02/23/24 13:25	1

Method: SW846 6020B - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		02/21/24 07:56	02/23/24 22:06	1

Method: SW846 6020B - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^5- ^1+	0.0060	0.0060	mg/L		02/21/24 07:54	02/21/24 20:05	1
Thallium	**0.0026**		0.0020	0.0020	mg/L		02/21/24 07:54	02/21/24 20:05	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/21/24 10:00	02/22/24 10:03	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.021**		0.018	0.0093	mg/Kg	☼	02/20/24 12:55	02/21/24 08:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.25		0.25	0.12	mg/Kg	☼	02/21/24 13:32	02/22/24 11:32	1
pH (SW846 9045D)	**6.9**		0.2	0.2	SU			02/15/24 15:24	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-245966-1

Client Sample ID: 2233V3-1-B210-1
Date Collected: 02/08/24 12:10
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-21
Matrix: Solid
Percent Solids: 76.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
2-Butanone (MEK)	**0.0020**	**J**	0.0042	0.0019	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0013	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Acetone	**0.017**		0.017	0.0074	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Carbon disulfide	<0.0042		0.0042	0.00088	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Chloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	02/09/24 17:53	02/13/24 22:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 134*	*02/09/24 17:53*	*02/13/24 22:02*	*1*
4-Bromofluorobenzene (Surr)	*97*		*75 - 131*	*02/09/24 17:53*	*02/13/24 22:02*	*1*
Dibromofluoromethane	*108*		*75 - 126*	*02/09/24 17:53*	*02/13/24 22:02*	*1*
Toluene-d8 (Surr)	*102*		*75 - 124*	*02/09/24 17:53*	*02/13/24 22:02*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.21		0.21	0.030	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
1,2-Dichlorobenzene	<0.21		0.21	0.017	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
1,3-Dichlorobenzene	<0.21		0.21	0.019	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
1,4-Dichlorobenzene	<0.21		0.21	0.020	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.030	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-245966-1

Client Sample ID: 2233V3-1-B210-1
Date Collected: 02/08/24 12:10
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-21
Matrix: Solid
Percent Solids: 76.6

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.42		0.42	0.016	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
2,4,6-Trichlorophenol	<0.42		0.42	0.014	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
2,4-Dichlorophenol	<0.42		0.42	0.015	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
2,4-Dimethylphenol	<0.42		0.42	0.094	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
2,4-Dinitrophenol	<0.85		0.85	0.24	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
2,4-Dinitrotoluene	<0.21		0.21	0.024	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
2,6-Dinitrotoluene	<0.21		0.21	0.014	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
2-Chloronaphthalene	<0.21		0.21	0.016	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
2-Chlorophenol	<0.21		0.21	0.014	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
2-Methylnaphthalene	<0.085		0.085	0.0084	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
2-Methylphenol	<0.21		0.21	0.022	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
2-Nitroaniline	<0.21		0.21	0.022	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
2-Nitrophenol	<0.42		0.42	0.028	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
3 & 4 Methylphenol	<0.21		0.21	0.031	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.034	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
3-Nitroaniline	<0.42		0.42	0.019	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
4,6-Dinitro-2-methylphenol	<0.85		0.85	0.24	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.029	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
4-Chloro-3-methylphenol	<0.42		0.42	0.016	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
4-Chloroaniline	<0.85		0.85	0.44	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.055	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
4-Nitroaniline	<0.42		0.42	0.031	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
4-Nitrophenol	<0.85		0.85	0.16	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Acenaphthene	<0.042		0.042	0.0085	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Acenaphthylene	<0.042		0.042	0.0071	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Anthracene	<0.042		0.042	0.0086	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Benzo[a]anthracene	**0.013**	**J**	0.042	0.0089	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Benzo[a]pyrene	<0.042		0.042	0.040	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Benzo[b]fluoranthene	<0.042		0.042	0.040	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Benzo[g,h,i]perylene	**0.011**	**J**	0.042	0.0091	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Benzo[k]fluoranthene	<0.042		0.042	0.016	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.016	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.019	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.16	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Butyl benzyl phthalate	<0.21		0.21	0.021	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Carbazole	<0.21		0.21	0.017	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Chrysene	<0.042		0.042	0.011	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Dibenz(a,h)anthracene	<0.042		0.042	0.042	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Dibenzofuran	<0.21		0.21	0.015	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Diethyl phthalate	<0.21		0.21	0.019	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Dimethyl phthalate	<0.21		0.21	0.0091	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Di-n-butyl phthalate	<0.21		0.21	0.013	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Di-n-octyl phthalate	<0.42		0.42	0.29	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Fluoranthene	**0.013**	**J**	0.042	0.0097	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Fluorene	<0.042		0.042	0.012	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Hexachlorobenzene	<0.085		0.085	0.0080	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Hexachlorobutadiene	<0.21		0.21	0.024	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Hexachlorocyclopentadiene	<0.85		0.85	0.44	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Hexachloroethane	<0.21		0.21	0.021	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-245966-1

Client Sample ID: 2233V3-1-B210-1
Date Collected: 02/08/24 12:10
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-21
Matrix: Solid
Percent Solids: 76.6

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.042		0.042	0.041	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Isophorone	<0.21		0.21	0.022	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Naphthalene	<0.042		0.042	0.0076	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Nitrobenzene	<0.042		0.042	0.013	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
N-Nitrosodi-n-propylamine	<0.085		0.085	0.0083	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
N-Nitrosodiphenylamine	<0.21		0.21	0.025	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Pentachlorophenol	<0.85		0.85	0.10	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Phenanthrene	<0.042		0.042	0.0091	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Phenol	<0.21		0.21	0.018	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1
Pyrene	**0.012**	**J**	0.042	0.011	mg/Kg	☼	02/13/24 07:40	02/14/24 17:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*53*		*31 - 143*	*02/13/24 07:40*	*02/14/24 17:08*	*1*
2-Fluorobiphenyl	*63*		*43 - 145*	*02/13/24 07:40*	*02/14/24 17:08*	*1*
2-Fluorophenol	*63*		*31 - 166*	*02/13/24 07:40*	*02/14/24 17:08*	*1*
Nitrobenzene-d5 (Surr)	*53*		*37 - 147*	*02/13/24 07:40*	*02/14/24 17:08*	*1*
Phenol-d5	*62*		*30 - 153*	*02/13/24 07:40*	*02/14/24 17:08*	*1*
Terphenyl-d14 (Surr)	*85*		*42 - 157*	*02/13/24 07:40*	*02/14/24 17:08*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.5		2.5	0.49	mg/Kg	☼	02/13/24 09:22	02/14/24 15:50	1
Arsenic	**11**		1.3	0.43	mg/Kg	☼	02/13/24 09:22	02/15/24 22:21	1
Barium	**86**		1.3	0.14	mg/Kg	☼	02/13/24 09:22	02/14/24 15:50	1
Beryllium	**0.70**		0.51	0.12	mg/Kg	☼	02/13/24 09:22	02/14/24 15:50	1
Boron	**5.8**		5.6	0.52	mg/Kg	☼	02/23/24 08:57	02/28/24 13:28	1
Cadmium	**0.16**	**J**	0.25	0.045	mg/Kg	☼	02/13/24 09:22	02/14/24 15:50	1
Calcium	**3400**		25	4.3	mg/Kg	☼	02/13/24 09:22	02/14/24 15:50	1
Chromium	**19**		1.3	0.63	mg/Kg	☼	02/13/24 09:22	02/14/24 15:50	1
Cobalt	**11**		0.63	0.17	mg/Kg	☼	02/13/24 09:22	02/14/24 15:50	1
Copper	**30**		1.3	0.35	mg/Kg	☼	02/13/24 09:22	02/14/24 15:50	1
Iron	**30000**		25	13	mg/Kg	☼	02/13/24 09:22	02/14/24 15:50	1
Lead	**20**		0.63	0.29	mg/Kg	☼	02/13/24 09:22	02/14/24 15:50	1
Magnesium	**3500**		13	6.3	mg/Kg	☼	02/13/24 09:22	02/14/24 15:50	1
Manganese	**360**		1.3	0.18	mg/Kg	☼	02/13/24 09:22	02/14/24 15:50	1
Nickel	**29**		1.3	0.37	mg/Kg	☼	02/13/24 09:22	02/14/24 15:50	1
Potassium	**1100**		63	22	mg/Kg	☼	02/13/24 09:22	02/14/24 15:50	1
Selenium	<1.3		1.3	0.74	mg/Kg	☼	02/13/24 09:22	02/16/24 15:33	1
Silver	<0.63		0.63	0.16	mg/Kg	☼	02/13/24 09:22	02/14/24 15:50	1
Sodium	**1300**		130	19	mg/Kg	☼	02/13/24 09:22	02/14/24 15:50	1
Thallium	<1.3		1.3	0.63	mg/Kg	☼	02/13/24 09:22	02/14/24 15:50	1
Vanadium	**41**		0.63	0.15	mg/Kg	☼	02/13/24 09:22	02/14/24 15:50	1
Zinc	**62**		2.5	1.1	mg/Kg	☼	02/13/24 09:22	02/14/24 15:50	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		02/22/24 07:52	02/23/24 17:24	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/22/24 07:52	02/23/24 17:24	1
Chromium	<0.025		0.025	0.010	mg/L		02/22/24 07:52	02/23/24 17:24	1
Iron	**0.53**	**F1**	0.40	0.20	mg/L		02/22/24 07:52	02/23/24 17:24	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-245966-1

Client Sample ID: 2233V3-1-B210-1
Date Collected: 02/08/24 12:10
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-21
Matrix: Solid
Percent Solids: 76.6

Method: SW846 6010D - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		02/22/24 07:52	02/23/24 17:24	1
Manganese	**2.2**		0.025	0.010	mg/L		02/22/24 07:52	02/23/24 17:24	1
Nickel	**0.043**		0.025	0.010	mg/L		02/22/24 07:52	02/23/24 17:24	1

Method: SW846 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.061**		0.050	0.010	mg/L		02/22/24 07:53	02/23/24 20:32	1
Barium	**0.71**		0.50	0.050	mg/L		02/22/24 07:53	02/23/24 20:32	1
Beryllium	**0.0056**		0.0040	0.0040	mg/L		02/22/24 07:53	02/23/24 20:32	1
Boron	**0.11**	**B**	0.10	0.050	mg/L		02/28/24 08:14	02/29/24 13:24	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/22/24 07:53	02/23/24 20:32	1
Calcium	**19**		2.5	0.50	mg/L		02/22/24 07:53	02/23/24 20:32	1
Chromium	**0.14**		0.025	0.010	mg/L		02/22/24 07:53	02/23/24 20:32	1
Cobalt	**0.050**		0.025	0.010	mg/L		02/28/24 08:14	02/29/24 13:24	1
Iron	**160**		0.40	0.20	mg/L		02/22/24 07:53	02/23/24 20:32	1
Lead	**0.10**		0.038	0.038	mg/L		02/22/24 07:53	02/27/24 22:24	5
Manganese	**1.2**		0.025	0.010	mg/L		02/22/24 07:53	02/23/24 20:32	1
Nickel	**0.16**		0.025	0.010	mg/L		02/28/24 08:14	02/29/24 13:24	1
Potassium	**8.7**		2.5	0.50	mg/L		02/22/24 07:53	02/23/24 20:32	1
Selenium	<0.050		0.050	0.020	mg/L		02/22/24 07:53	02/23/24 20:32	1
Silver	<0.025		0.025	0.010	mg/L		02/22/24 07:53	02/23/24 20:32	1
Zinc	**0.37**	**J**	0.50	0.020	mg/L		02/28/24 08:14	02/29/24 13:24	1

Method: SW846 6020B - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^5- ^1+	0.0060	0.0060	mg/L		02/22/24 07:53	02/22/24 21:07	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/22/24 07:53	02/22/24 21:07	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/24 10:40	02/23/24 08:32	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.054**		0.020	0.011	mg/Kg	☼	02/20/24 12:55	02/21/24 08:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.29		0.29	0.15	mg/Kg	☼	02/19/24 10:00	02/19/24 15:18	1
pH (SW846 9045D)	**7.4**		0.2	0.2	SU			02/15/24 15:58	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-245966-1

Client Sample ID: 2233V3-1-B210-2
Date Collected: 02/08/24 12:20
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-22
Matrix: Solid
Percent Solids: 87.2

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0015		0.0015	0.00052	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00049	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00066	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
1,1-Dichloroethane	<0.0015		0.0015	0.00053	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
1,1-Dichloroethene	<0.0015		0.0015	0.00053	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
1,2-Dichloroethane	<0.0038		0.0038	0.0012	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
1,2-Dichloropropane	<0.0015		0.0015	0.00040	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
1,3-Dichloropropene, Total	<0.0015		0.0015	0.00054	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
2-Butanone (MEK)	<0.0038	*+	0.0038	0.0017	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
2-Hexanone	<0.0038		0.0038	0.0012	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
4-Methyl-2-pentanone (MIBK)	<0.0038		0.0038	0.0011	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Acetone	<0.015	*+ *1	0.015	0.0067	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Benzene	<0.0015		0.0015	0.00039	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Bromodichloromethane	<0.0015		0.0015	0.00031	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Bromoform	<0.0015		0.0015	0.00045	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Bromomethane	<0.0038		0.0038	0.0015	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Carbon disulfide	<0.0038		0.0038	0.00080	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Carbon tetrachloride	<0.0015		0.0015	0.00045	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Chlorobenzene	<0.0015		0.0015	0.00057	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Chloroethane	<0.0038		0.0038	0.0011	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Chloroform	<0.0015		0.0015	0.00053	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Chloromethane	<0.0038		0.0038	0.0015	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00043	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00046	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Dibromochloromethane	<0.0015		0.0015	0.00050	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Ethylbenzene	<0.0015		0.0015	0.00074	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00045	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Methylene Chloride	<0.0038		0.0038	0.0015	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Styrene	<0.0015		0.0015	0.00046	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Tetrachloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Toluene	<0.0015		0.0015	0.00039	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00068	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00054	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Trichloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Vinyl chloride	<0.0015		0.0015	0.00068	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1
Xylenes, Total	<0.0031		0.0031	0.00049	mg/Kg	☼	02/09/24 17:53	02/14/24 22:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*70 - 134*	*02/09/24 17:53*	*02/14/24 22:55*	*1*
4-Bromofluorobenzene (Surr)	*106*		*75 - 131*	*02/09/24 17:53*	*02/14/24 22:55*	*1*
Dibromofluoromethane	*108*		*75 - 126*	*02/09/24 17:53*	*02/14/24 22:55*	*1*
Toluene-d8 (Surr)	*107*		*75 - 124*	*02/09/24 17:53*	*02/14/24 22:55*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.18		0.18	0.026	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
1,2-Dichlorobenzene	<0.18		0.18	0.015	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
1,3-Dichlorobenzene	<0.18		0.18	0.016	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
1,4-Dichlorobenzene	<0.18		0.18	0.017	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.026	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-245966-1

Client Sample ID: 2233V3-1-B210-2
Date Collected: 02/08/24 12:20
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-22
Matrix: Solid
Percent Solids: 87.2

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.36		0.36	0.014	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
2,4,6-Trichlorophenol	<0.36		0.36	0.012	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
2,4-Dichlorophenol	<0.36		0.36	0.013	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
2,4-Dimethylphenol	<0.36		0.36	0.082	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
2,4-Dinitrophenol	<0.74		0.74	0.21	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
2,4-Dinitrotoluene	<0.18		0.18	0.021	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
2,6-Dinitrotoluene	<0.18		0.18	0.012	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
2-Chloronaphthalene	<0.18		0.18	0.014	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
2-Chlorophenol	<0.18		0.18	0.012	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
2-Methylnaphthalene	<0.074		0.074	0.0073	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
2-Methylphenol	<0.18		0.18	0.019	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
2-Nitroaniline	<0.18		0.18	0.020	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
2-Nitrophenol	<0.36		0.36	0.025	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
3 & 4 Methylphenol	<0.18		0.18	0.027	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.030	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
3-Nitroaniline	<0.36		0.36	0.017	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.21	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.025	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
4-Chloro-3-methylphenol	<0.36		0.36	0.014	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
4-Chloroaniline	<0.74		0.74	0.38	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
4-Nitroaniline	<0.36		0.36	0.027	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
4-Nitrophenol	<0.74		0.74	0.14	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Acenaphthene	<0.036		0.036	0.0074	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Acenaphthylene	<0.036		0.036	0.0062	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Anthracene	<0.036		0.036	0.0074	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Benzo[a]anthracene	**0.014**	**J**	0.036	0.0077	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Benzo[a]pyrene	<0.036		0.036	0.035	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Benzo[b]fluoranthene	<0.036		0.036	0.035	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Benzo[g,h,i]perylene	**0.015**	**J**	0.036	0.0079	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Benzo[k]fluoranthene	<0.036		0.036	0.014	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.014	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.017	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.14	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Butyl benzyl phthalate	<0.18		0.18	0.018	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Carbazole	<0.18		0.18	0.014	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Chrysene	**0.011**	**J**	0.036	0.0096	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Dibenz(a,h)anthracene	<0.036		0.036	0.036	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Dibenzofuran	<0.18		0.18	0.013	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Diethyl phthalate	<0.18		0.18	0.017	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Dimethyl phthalate	<0.18		0.18	0.0079	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Di-n-butyl phthalate	<0.18		0.18	0.012	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Di-n-octyl phthalate	<0.36		0.36	0.25	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Fluoranthene	<0.036		0.036	0.0085	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Fluorene	<0.036		0.036	0.011	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Hexachlorobenzene	<0.074		0.074	0.0070	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Hexachlorobutadiene	<0.18		0.18	0.021	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Hexachlorocyclopentadiene	<0.74		0.74	0.39	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Hexachloroethane	<0.18		0.18	0.018	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1

Client Sample ID: 2233V3-1-B210-2

Date Collected: 02/08/24 12:20
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-22

Matrix: Solid
Percent Solids: 87.2

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.035	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Isophorone	<0.18		0.18	0.019	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Naphthalene	<0.036		0.036	0.0066	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Nitrobenzene	<0.036		0.036	0.012	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.0072	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
N-Nitrosodiphenylamine	<0.18		0.18	0.022	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Pentachlorophenol	<0.74		0.74	0.091	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Phenanthrene	<0.036		0.036	0.0079	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Phenol	<0.18		0.18	0.016	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1
Pyrene	<0.036		0.036	0.0099	mg/Kg	☼	02/13/24 07:40	02/14/24 16:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*70*		*31 - 143*	*02/13/24 07:40*	*02/14/24 16:19*	*1*
2-Fluorobiphenyl	*55*		*43 - 145*	*02/13/24 07:40*	*02/14/24 16:19*	*1*
2-Fluorophenol	*50*		*31 - 166*	*02/13/24 07:40*	*02/14/24 16:19*	*1*
Nitrobenzene-d5 (Surr)	*43*		*37 - 147*	*02/13/24 07:40*	*02/14/24 16:19*	*1*
Phenol-d5	*53*		*30 - 153*	*02/13/24 07:40*	*02/14/24 16:19*	*1*
Terphenyl-d14 (Surr)	*86*		*42 - 157*	*02/13/24 07:40*	*02/14/24 16:19*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.2		2.2	0.43	mg/Kg	☼	02/13/24 09:22	02/14/24 15:54	1
Arsenic	**8.1**		1.1	0.38	mg/Kg	☼	02/13/24 09:22	02/15/24 22:25	1
Barium	**31**		1.1	0.13	mg/Kg	☼	02/13/24 09:22	02/14/24 15:54	1
Beryllium	**0.46**		0.45	0.10	mg/Kg	☼	02/13/24 09:22	02/14/24 15:54	1
Boron	**11**		5.7	0.53	mg/Kg	☼	02/23/24 08:57	02/28/24 13:31	1
Cadmium	**0.18**	**J**	0.22	0.040	mg/Kg	☼	02/13/24 09:22	02/14/24 15:54	1
Calcium	**52000**		22	3.8	mg/Kg	☼	02/13/24 09:22	02/14/24 15:54	1
Chromium	**12**		1.1	0.55	mg/Kg	☼	02/13/24 09:22	02/14/24 15:54	1
Cobalt	**9.9**		0.56	0.15	mg/Kg	☼	02/13/24 09:22	02/14/24 15:54	1
Copper	**35**		1.1	0.31	mg/Kg	☼	02/13/24 09:22	02/14/24 15:54	1
Iron	**20000**		22	12	mg/Kg	☼	02/13/24 09:22	02/14/24 15:54	1
Lead	**17**		0.56	0.26	mg/Kg	☼	02/13/24 09:22	02/14/24 15:54	1
Magnesium	**31000**		11	5.5	mg/Kg	☼	02/13/24 09:22	02/14/24 15:54	1
Manganese	**490**		1.1	0.16	mg/Kg	☼	02/13/24 09:22	02/14/24 15:54	1
Nickel	**26**		1.1	0.32	mg/Kg	☼	02/13/24 09:22	02/14/24 15:54	1
Potassium	**2000**		56	20	mg/Kg	☼	02/13/24 09:22	02/14/24 15:54	1
Selenium	**1.1**		1.1	0.66	mg/Kg	☼	02/13/24 09:22	02/16/24 15:36	1
Silver	<0.56		0.56	0.14	mg/Kg	☼	02/13/24 09:22	02/14/24 15:54	1
Sodium	**540**		110	17	mg/Kg	☼	02/13/24 09:22	02/14/24 15:54	1
Thallium	**1.8**		1.1	0.56	mg/Kg	☼	02/13/24 09:22	02/14/24 15:54	1
Vanadium	**17**		0.56	0.13	mg/Kg	☼	02/13/24 09:22	02/14/24 15:54	1
Zinc	**120**		2.2	0.98	mg/Kg	☼	02/13/24 09:22	02/14/24 15:54	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		02/22/24 07:52	02/23/24 17:41	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/22/24 07:52	02/23/24 17:41	1
Manganese	**2.3**		0.025	0.010	mg/L		02/22/24 07:52	02/23/24 17:41	1

Client Sample ID: 2233V3-1-B210-2

Date Collected: 02/08/24 12:20
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-22

Matrix: Solid
Percent Solids: 87.2

Method: SW846 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.038**	**J**	0.050	0.010	mg/L		02/22/24 07:53	02/23/24 20:36	1
Barium	**0.18**	**J**	0.50	0.050	mg/L		02/22/24 07:53	02/23/24 20:36	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/22/24 07:53	02/23/24 20:36	1
Boron	**0.16**	**B**	0.10	0.050	mg/L		02/28/24 08:14	02/29/24 13:28	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/22/24 07:53	02/23/24 20:36	1
Calcium	**15**		2.5	0.50	mg/L		02/22/24 07:53	02/23/24 20:36	1
Chromium	**0.065**		0.025	0.010	mg/L		02/22/24 07:53	02/23/24 20:36	1
Cobalt	**0.037**		0.025	0.010	mg/L		02/28/24 08:14	02/29/24 13:28	1
Iron	**74**		0.40	0.20	mg/L		02/22/24 07:53	02/23/24 20:36	1
Lead	**0.051**		0.0075	0.0075	mg/L		02/22/24 07:53	02/27/24 22:28	1
Manganese	**0.30**		0.025	0.010	mg/L		02/22/24 07:53	02/23/24 20:36	1
Nickel	**0.10**		0.025	0.010	mg/L		02/28/24 08:14	02/29/24 13:28	1
Potassium	**20**		2.5	0.50	mg/L		02/22/24 07:53	02/23/24 20:36	1
Selenium	<0.050		0.050	0.020	mg/L		02/22/24 07:53	02/23/24 20:36	1
Silver	<0.025		0.025	0.010	mg/L		02/22/24 07:53	02/23/24 20:36	1
Zinc	**0.48**	**J**	0.50	0.020	mg/L		02/28/24 08:14	02/29/24 13:28	1

Method: SW846 6020B - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		02/22/24 07:52	02/23/24 22:55	1

Method: SW846 6020B - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^5- ^1+	0.0060	0.0060	mg/L		02/22/24 07:53	02/22/24 21:20	1
Thallium	**0.0047**		0.0020	0.0020	mg/L		02/22/24 07:53	02/22/24 21:20	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/24 10:40	02/23/24 08:34	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.029**		0.018	0.0096	mg/Kg	☼	02/20/24 12:55	02/21/24 08:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.26		0.26	0.13	mg/Kg	☼	02/19/24 10:00	02/19/24 15:20	1
pH (SW846 9045D)	**6.8**		0.2	0.2	SU			02/15/24 16:03	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-245966-1

Client Sample ID: 2233V3-1-B239-1
Date Collected: 02/08/24 13:10
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-27
Matrix: Solid
Percent Solids: 78.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
1,2-Dichloroethane	<0.0040		0.0040	0.0013	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
2-Butanone (MEK)	**0.0024**	**J**	0.0040	0.0018	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
2-Hexanone	<0.0040		0.0040	0.0013	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Acetone	**0.018**		0.016	0.0070	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Carbon disulfide	<0.0040		0.0040	0.00084	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Ethylbenzene	<0.0016		0.0016	0.00077	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00071	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Vinyl chloride	<0.0016		0.0016	0.00071	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1
Xylenes, Total	<0.0032		0.0032	0.00052	mg/Kg	☼	02/09/24 17:53	02/14/24 00:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 134*	*02/09/24 17:53*	*02/14/24 00:30*	*1*
4-Bromofluorobenzene (Surr)	*97*		*75 - 131*	*02/09/24 17:53*	*02/14/24 00:30*	*1*
Dibromofluoromethane	*107*		*75 - 126*	*02/09/24 17:53*	*02/14/24 00:30*	*1*
Toluene-d8 (Surr)	*103*		*75 - 124*	*02/09/24 17:53*	*02/14/24 00:30*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.21		0.21	0.029	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
1,2-Dichlorobenzene	<0.21		0.21	0.017	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
1,3-Dichlorobenzene	<0.21		0.21	0.019	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
1,4-Dichlorobenzene	<0.21		0.21	0.019	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.029	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-245966-1

Client Sample ID: 2233V3-1-B239-1
Date Collected: 02/08/24 13:10
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-27
Matrix: Solid
Percent Solids: 78.9

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.41		0.41	0.015	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
2,4,6-Trichlorophenol	<0.41		0.41	0.014	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
2,4-Dichlorophenol	<0.41		0.41	0.014	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
2,4-Dimethylphenol	<0.41		0.41	0.092	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
2,4-Dinitrophenol	<0.83		0.83	0.24	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
2,4-Dinitrotoluene	<0.21		0.21	0.023	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
2,6-Dinitrotoluene	<0.21		0.21	0.014	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
2-Chloronaphthalene	<0.21		0.21	0.015	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
2-Chlorophenol	<0.21		0.21	0.013	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
2-Methylnaphthalene	<0.083		0.083	0.0082	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
2-Methylphenol	<0.21		0.21	0.022	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
2-Nitroaniline	<0.21		0.21	0.022	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
2-Nitrophenol	<0.41		0.41	0.028	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
3 & 4 Methylphenol	<0.21		0.21	0.030	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.033	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
3-Nitroaniline	<0.41		0.41	0.019	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.23	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.028	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
4-Chloro-3-methylphenol	<0.41		0.41	0.016	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
4-Chloroaniline	<0.83		0.83	0.43	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
4-Nitroaniline	<0.41		0.41	0.030	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
4-Nitrophenol	<0.83		0.83	0.15	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Acenaphthene	<0.041		0.041	0.0083	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Acenaphthylene	<0.041		0.041	0.0070	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Anthracene	<0.041		0.041	0.0084	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Benzo[a]anthracene	<0.041		0.041	0.0087	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Benzo[a]pyrene	<0.041		0.041	0.040	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Benzo[b]fluoranthene	<0.041		0.041	0.039	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Benzo[g,h,i]perylene	<0.041		0.041	0.0089	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Benzo[k]fluoranthene	<0.041		0.041	0.016	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.015	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.019	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.16	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Butyl benzyl phthalate	<0.21		0.21	0.020	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Carbazole	<0.21		0.21	0.016	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Chrysene	<0.041		0.041	0.011	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Dibenz(a,h)anthracene	<0.041		0.041	0.041	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Dibenzofuran	<0.21		0.21	0.015	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Diethyl phthalate	<0.21		0.21	0.019	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Dimethyl phthalate	<0.21		0.21	0.0089	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Di-n-butyl phthalate	<0.21		0.21	0.013	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Di-n-octyl phthalate	<0.41		0.41	0.29	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Fluoranthene	<0.041		0.041	0.0095	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Fluorene	<0.041		0.041	0.012	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Hexachlorobenzene	<0.083		0.083	0.0079	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Hexachlorobutadiene	<0.21		0.21	0.023	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Hexachlorocyclopentadiene	<0.83		0.83	0.43	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Hexachloroethane	<0.21		0.21	0.021	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-245966-1

Client Sample ID: 2233V3-1-B239-1
Date Collected: 02/08/24 13:10
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-27
Matrix: Solid
Percent Solids: 78.9

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.040	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Isophorone	<0.21		0.21	0.021	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Naphthalene	<0.041		0.041	0.0074	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Nitrobenzene	<0.041		0.041	0.013	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.0081	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
N-Nitrosodiphenylamine	<0.21		0.21	0.024	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Pentachlorophenol	<0.83		0.83	0.10	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Phenanthrene	<0.041		0.041	0.0089	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Phenol	<0.21		0.21	0.018	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1
Pyrene	<0.041		0.041	0.011	mg/Kg	☼	02/13/24 07:40	02/13/24 17:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*69*		*31 - 143*	*02/13/24 07:40*	*02/13/24 17:17*	*1*
2-Fluorobiphenyl	*59*		*43 - 145*	*02/13/24 07:40*	*02/13/24 17:17*	*1*
2-Fluorophenol	*65*		*31 - 166*	*02/13/24 07:40*	*02/13/24 17:17*	*1*
Nitrobenzene-d5 (Surr)	*45*		*37 - 147*	*02/13/24 07:40*	*02/13/24 17:17*	*1*
Phenol-d5	*63*		*30 - 153*	*02/13/24 07:40*	*02/13/24 17:17*	*1*
Terphenyl-d14 (Surr)	*83*		*42 - 157*	*02/13/24 07:40*	*02/13/24 17:17*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.46**	**J**	2.2	0.43	mg/Kg	☼	02/13/24 09:22	02/15/24 22:42	1
Arsenic	**4.8**		1.1	0.38	mg/Kg	☼	02/13/24 09:22	02/15/24 22:42	1
Barium	**110**		1.1	0.13	mg/Kg	☼	02/13/24 09:22	02/14/24 16:25	1
Beryllium	**1.0**		0.44	0.10	mg/Kg	☼	02/13/24 09:22	02/15/24 22:42	1
Boron	**4.9**	**J**	5.6	0.52	mg/Kg	☼	02/23/24 08:57	02/28/24 13:57	1
Cadmium	**0.15**	**J B**	0.22	0.040	mg/Kg	☼	02/13/24 09:22	02/15/24 22:42	1
Calcium	**3300**		22	3.8	mg/Kg	☼	02/13/24 09:22	02/14/24 16:25	1
Chromium	**21**		1.1	0.55	mg/Kg	☼	02/13/24 09:22	02/15/24 22:42	1
Cobalt	**10**		0.56	0.15	mg/Kg	☼	02/13/24 09:22	02/15/24 22:42	1
Copper	**19**		1.1	0.31	mg/Kg	☼	02/13/24 09:22	02/14/24 16:25	1
Iron	**15000**		22	12	mg/Kg	☼	02/13/24 09:22	02/14/24 16:25	1
Lead	**14**		0.56	0.26	mg/Kg	☼	02/13/24 09:22	02/15/24 22:42	1
Magnesium	**4300**		11	5.5	mg/Kg	☼	02/13/24 09:22	02/15/24 22:42	1
Manganese	**180**		1.1	0.16	mg/Kg	☼	02/13/24 09:22	02/14/24 16:25	1
Nickel	**19**		1.1	0.32	mg/Kg	☼	02/13/24 09:22	02/15/24 22:42	1
Potassium	**1100**		56	20	mg/Kg	☼	02/13/24 09:22	02/14/24 16:25	1
Selenium	<1.1		1.1	0.65	mg/Kg	☼	02/13/24 09:22	02/16/24 16:01	1
Silver	<0.56		0.56	0.14	mg/Kg	☼	02/13/24 09:22	02/14/24 16:25	1
Sodium	**830**		110	16	mg/Kg	☼	02/13/24 09:22	02/14/24 16:25	1
Thallium	<1.1		1.1	0.55	mg/Kg	☼	02/13/24 09:22	02/15/24 22:42	1
Vanadium	**32**		0.56	0.13	mg/Kg	☼	02/13/24 09:22	02/15/24 22:42	1
Zinc	**70**		2.2	0.98	mg/Kg	☼	02/13/24 09:22	02/15/24 22:42	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/22/24 07:52	02/23/24 18:02	1
Chromium	<0.025		0.025	0.010	mg/L		02/22/24 07:52	02/23/24 18:02	1
Iron	**1.9**		0.40	0.20	mg/L		02/22/24 07:52	02/23/24 18:02	1
Lead	**0.011**		0.0075	0.0075	mg/L		02/22/24 07:52	02/23/24 18:02	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-245966-1

Client Sample ID: 2233V3-1-B239-1
Date Collected: 02/08/24 13:10
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-27
Matrix: Solid
Percent Solids: 78.9

Method: SW846 6010D - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**2.3**		0.025	0.010	mg/L		02/22/24 07:52	02/23/24 18:02	1

Method: SW846 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.034**	**J**	0.050	0.010	mg/L		02/22/24 07:53	02/23/24 20:56	1
Barium	**0.60**		0.50	0.050	mg/L		02/22/24 07:53	02/23/24 20:56	1
Beryllium	**0.0053**		0.0040	0.0040	mg/L		02/22/24 07:53	02/23/24 20:56	1
Boron	**0.12**		0.10	0.050	mg/L		02/22/24 07:53	02/28/24 14:46	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/22/24 07:53	02/23/24 20:56	1
Calcium	**18**		2.5	0.50	mg/L		02/22/24 07:53	02/23/24 20:56	1
Chromium	**0.14**		0.025	0.010	mg/L		02/22/24 07:53	02/23/24 20:56	1
Cobalt	**0.036**		0.025	0.010	mg/L		02/22/24 07:53	02/28/24 14:46	1
Iron	**100**		0.40	0.20	mg/L		02/22/24 07:53	02/23/24 20:56	1
Lead	**0.098**		0.0075	0.0075	mg/L		02/22/24 07:53	02/27/24 22:53	1
Manganese	**0.87**		0.025	0.010	mg/L		02/22/24 07:53	02/23/24 20:56	1
Nickel	**0.097**		0.025	0.010	mg/L		02/22/24 07:53	02/28/24 14:46	1
Potassium	**10**		2.5	0.50	mg/L		02/22/24 07:53	02/23/24 20:56	1
Selenium	<0.050		0.050	0.020	mg/L		02/22/24 07:53	02/23/24 20:56	1
Silver	<0.025		0.025	0.010	mg/L		02/22/24 07:53	02/23/24 20:56	1
Zinc	**0.47**	**J ^+**	0.50	0.020	mg/L		02/22/24 07:53	02/28/24 14:46	1

Method: SW846 6020B - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^5- ^1+	0.0060	0.0060	mg/L		02/22/24 07:53	02/22/24 21:38	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/22/24 07:53	02/22/24 21:38	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/24 10:40	02/23/24 08:44	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.056**		0.020	0.011	mg/Kg	☼	02/20/24 12:55	02/21/24 08:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.27		0.27	0.14	mg/Kg	☼	02/19/24 10:00	02/19/24 15:35	1
pH (SW846 9045D)	**7.6**		0.2	0.2	SU			02/15/24 16:15	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-245966-1

Client Sample ID: 2233V3-1-B239-2
Date Collected: 02/08/24 13:20
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-28
Matrix: Solid
Percent Solids: 85.7

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0013		0.0013	0.00045	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
1,1,2,2-Tetrachloroethane	<0.0013		0.0013	0.00043	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
1,1,2-Trichloroethane	<0.0013		0.0013	0.00057	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
1,1-Dichloroethane	<0.0013		0.0013	0.00046	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
1,1-Dichloroethene	<0.0013		0.0013	0.00046	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
1,2-Dichloroethane	<0.0033		0.0033	0.0010	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
1,2-Dichloropropane	<0.0013		0.0013	0.00035	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
1,3-Dichloropropene, Total	<0.0013		0.0013	0.00047	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
2-Butanone (MEK)	**0.0019**	**J**	0.0033	0.0015	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
2-Hexanone	<0.0033		0.0033	0.0010	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
4-Methyl-2-pentanone (MIBK)	<0.0033		0.0033	0.00099	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Acetone	**0.020**		0.013	0.0058	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Benzene	<0.0013		0.0013	0.00034	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Bromodichloromethane	<0.0013		0.0013	0.00027	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Bromoform	<0.0013		0.0013	0.00039	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Bromomethane	<0.0033		0.0033	0.0013	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Carbon disulfide	<0.0033		0.0033	0.00070	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Carbon tetrachloride	<0.0013		0.0013	0.00039	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Chlorobenzene	<0.0013		0.0013	0.00049	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Chloroethane	<0.0033		0.0033	0.00099	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Chloroform	<0.0013		0.0013	0.00046	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Chloromethane	<0.0033		0.0033	0.0013	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
cis-1,2-Dichloroethene	<0.0013		0.0013	0.00037	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
cis-1,3-Dichloropropene	<0.0013		0.0013	0.00040	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Dibromochloromethane	<0.0013		0.0013	0.00044	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Ethylbenzene	<0.0013		0.0013	0.00064	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Methyl tert-butyl ether	<0.0013		0.0013	0.00039	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Methylene Chloride	<0.0033		0.0033	0.0013	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Styrene	<0.0013		0.0013	0.00040	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Tetrachloroethene	<0.0013		0.0013	0.00046	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Toluene	<0.0013		0.0013	0.00034	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
trans-1,2-Dichloroethene	<0.0013		0.0013	0.00059	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
trans-1,3-Dichloropropene	<0.0013		0.0013	0.00047	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Trichloroethene	<0.0013		0.0013	0.00045	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Vinyl chloride	<0.0013		0.0013	0.00059	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1
Xylenes, Total	<0.0027		0.0027	0.00043	mg/Kg	☼	02/09/24 17:53	02/14/24 00:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*70 - 134*	*02/09/24 17:53*	*02/14/24 00:54*	*1*
4-Bromofluorobenzene (Surr)	*102*		*75 - 131*	*02/09/24 17:53*	*02/14/24 00:54*	*1*
Dibromofluoromethane	*109*		*75 - 126*	*02/09/24 17:53*	*02/14/24 00:54*	*1*
Toluene-d8 (Surr)	*104*		*75 - 124*	*02/09/24 17:53*	*02/14/24 00:54*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.027	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
1,2-Dichlorobenzene	<0.19		0.19	0.016	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
1,3-Dichlorobenzene	<0.19		0.19	0.017	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
1,4-Dichlorobenzene	<0.19		0.19	0.018	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.027	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-245966-1

Client Sample ID: 2233V3-1-B239-2
Date Collected: 02/08/24 13:20
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-28
Matrix: Solid
Percent Solids: 85.7

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.38		0.38	0.014	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
2,4,6-Trichlorophenol	<0.38		0.38	0.013	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
2,4-Dichlorophenol	<0.38		0.38	0.014	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
2,4-Dimethylphenol	<0.38		0.38	0.086	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
2,4-Dinitrophenol	<0.77		0.77	0.22	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
2,4-Dinitrotoluene	<0.19		0.19	0.022	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
2,6-Dinitrotoluene	<0.19		0.19	0.013	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
2-Chloronaphthalene	<0.19		0.19	0.014	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
2-Chlorophenol	<0.19		0.19	0.012	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
2-Methylnaphthalene	<0.077		0.077	0.0077	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
2-Methylphenol	<0.19		0.19	0.020	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
2-Nitroaniline	<0.19		0.19	0.021	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
2-Nitrophenol	<0.38		0.38	0.026	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
3 & 4 Methylphenol	<0.19		0.19	0.028	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.031	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
3-Nitroaniline	<0.38		0.38	0.017	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.22	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.026	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
4-Chloro-3-methylphenol	<0.38		0.38	0.015	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
4-Chloroaniline	<0.77		0.77	0.40	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
4-Nitroaniline	<0.38		0.38	0.028	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
4-Nitrophenol	<0.77		0.77	0.14	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Acenaphthene	<0.038		0.038	0.0078	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Acenaphthylene	<0.038		0.038	0.0065	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Anthracene	<0.038		0.038	0.0078	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Benzo[a]anthracene	<0.038		0.038	0.0081	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Benzo[a]pyrene	<0.038		0.038	0.037	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Benzo[b]fluoranthene	<0.038		0.038	0.036	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Benzo[g,h,i]perylene	<0.038		0.038	0.0083	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Benzo[k]fluoranthene	<0.038		0.038	0.015	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.014	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.018	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.15	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Butyl benzyl phthalate	<0.19		0.19	0.019	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Carbazole	<0.19		0.19	0.015	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Dibenz(a,h)anthracene	<0.038		0.038	0.038	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Dibenzofuran	<0.19		0.19	0.014	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Diethyl phthalate	<0.19		0.19	0.018	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Dimethyl phthalate	<0.19		0.19	0.0083	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Di-n-butyl phthalate	<0.19		0.19	0.012	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Di-n-octyl phthalate	<0.38		0.38	0.27	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Fluoranthene	<0.038		0.038	0.0089	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Fluorene	<0.038		0.038	0.011	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Hexachlorobenzene	<0.077		0.077	0.0073	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Hexachlorobutadiene	<0.19		0.19	0.022	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Hexachlorocyclopentadiene	<0.77		0.77	0.41	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Hexachloroethane	<0.19		0.19	0.019	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-245966-1

Client Sample ID: 2233V3-1-B239-2
Date Collected: 02/08/24 13:20
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-28
Matrix: Solid
Percent Solids: 85.7

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.037	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Isophorone	<0.19		0.19	0.020	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Naphthalene	<0.038		0.038	0.0069	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Nitrobenzene	<0.038		0.038	0.012	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.0076	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
N-Nitrosodiphenylamine	<0.19		0.19	0.023	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Pentachlorophenol	<0.77		0.77	0.096	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Phenanthrene	<0.038		0.038	0.0083	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Phenol	<0.19		0.19	0.017	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1
Pyrene	<0.038		0.038	0.010	mg/Kg	☼	02/13/24 07:40	02/14/24 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*64*		*31 - 143*	*02/13/24 07:40*	*02/14/24 14:42*	*1*
2-Fluorobiphenyl	*46*		*43 - 145*	*02/13/24 07:40*	*02/14/24 14:42*	*1*
2-Fluorophenol	*47*		*31 - 166*	*02/13/24 07:40*	*02/14/24 14:42*	*1*
Nitrobenzene-d5 (Surr)	*40*		*37 - 147*	*02/13/24 07:40*	*02/14/24 14:42*	*1*
Phenol-d5	*52*		*30 - 153*	*02/13/24 07:40*	*02/14/24 14:42*	*1*
Terphenyl-d14 (Surr)	*83*		*42 - 157*	*02/13/24 07:40*	*02/14/24 14:42*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.69**	**J**	2.0	0.39	mg/Kg	☼	02/13/24 09:22	02/15/24 22:46	1
Arsenic	**9.0**		0.99	0.34	mg/Kg	☼	02/13/24 09:22	02/15/24 22:46	1
Barium	**48**		0.99	0.11	mg/Kg	☼	02/13/24 09:22	02/14/24 16:29	1
Beryllium	**0.53**		0.40	0.093	mg/Kg	☼	02/13/24 09:22	02/15/24 22:46	1
Boron	**8.9**		5.2	0.49	mg/Kg	☼	02/23/24 08:57	02/28/24 14:00	1
Cadmium	**0.35**	**B**	0.20	0.036	mg/Kg	☼	02/13/24 09:22	02/15/24 22:46	1
Calcium	**55000**		20	3.4	mg/Kg	☼	02/13/24 09:22	02/14/24 16:29	1
Chromium	**15**		0.99	0.49	mg/Kg	☼	02/13/24 09:22	02/15/24 22:46	1
Cobalt	**14**		0.50	0.13	mg/Kg	☼	02/13/24 09:22	02/15/24 22:46	1
Copper	**25**		0.99	0.28	mg/Kg	☼	02/13/24 09:22	02/14/24 16:29	1
Iron	**19000**		20	10	mg/Kg	☼	02/13/24 09:22	02/14/24 16:29	1
Lead	**14**		0.50	0.23	mg/Kg	☼	02/13/24 09:22	02/15/24 22:46	1
Magnesium	**25000**		9.9	4.9	mg/Kg	☼	02/13/24 09:22	02/15/24 22:46	1
Manganese	**440**		0.99	0.14	mg/Kg	☼	02/13/24 09:22	02/14/24 16:29	1
Nickel	**29**		0.99	0.29	mg/Kg	☼	02/13/24 09:22	02/14/24 16:29	1
Potassium	**2400**		50	18	mg/Kg	☼	02/13/24 09:22	02/14/24 16:29	1
Selenium	<0.99		0.99	0.58	mg/Kg	☼	02/13/24 09:22	02/16/24 16:05	1
Silver	<0.50		0.50	0.13	mg/Kg	☼	02/13/24 09:22	02/14/24 16:29	1
Sodium	**370**		99	15	mg/Kg	☼	02/13/24 09:22	02/14/24 16:29	1
Thallium	<0.99		0.99	0.50	mg/Kg	☼	02/13/24 09:22	02/15/24 22:46	1
Vanadium	**20**		0.50	0.12	mg/Kg	☼	02/13/24 09:22	02/15/24 22:46	1
Zinc	**71**		2.0	0.87	mg/Kg	☼	02/13/24 09:22	02/15/24 22:46	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		02/22/24 07:52	02/23/24 18:15	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/22/24 07:52	02/23/24 18:15	1
Chromium	<0.025		0.025	0.010	mg/L		02/22/24 07:52	02/23/24 18:15	1
Iron	<0.40		0.40	0.20	mg/L		02/22/24 07:52	02/23/24 18:15	1

Client Sample ID: 2233V3-1-B239-2

Date Collected: 02/08/24 13:20
Date Received: 02/09/24 09:23

Lab Sample ID: 500-245966-28

Matrix: Solid
Percent Solids: 85.7

Method: SW846 6010D - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		02/22/24 07:52	02/23/24 18:15	1
Manganese	**1.1**		0.025	0.010	mg/L		02/22/24 07:52	02/23/24 18:15	1
Nickel	<0.025		0.025	0.010	mg/L		02/22/24 07:52	02/23/24 18:15	1

Method: SW846 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.069**		0.050	0.010	mg/L		02/22/24 07:53	02/23/24 21:00	1
Barium	**0.39**	**J**	0.50	0.050	mg/L		02/22/24 07:53	02/23/24 21:00	1
Beryllium	**0.0055**		0.0040	0.0040	mg/L		02/22/24 07:53	02/23/24 21:00	1
Boron	**0.25**		0.10	0.050	mg/L		02/22/24 07:53	02/28/24 14:49	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/22/24 07:53	02/23/24 21:00	1
Calcium	**28**		2.5	0.50	mg/L		02/22/24 07:53	02/23/24 21:00	1
Chromium	**0.11**		0.025	0.010	mg/L		02/22/24 07:53	02/23/24 21:00	1
Cobalt	**0.072**		0.025	0.010	mg/L		02/22/24 07:53	02/28/24 14:49	1
Iron	**140**		0.40	0.20	mg/L		02/22/24 07:53	02/23/24 21:00	1
Lead	**0.087**		0.0075	0.0075	mg/L		02/22/24 07:53	02/27/24 22:57	1
Manganese	**0.73**		0.025	0.010	mg/L		02/22/24 07:53	02/23/24 21:00	1
Nickel	**0.22**		0.025	0.010	mg/L		02/22/24 07:53	02/28/24 14:49	1
Potassium	**27**		2.5	0.50	mg/L		02/22/24 07:53	02/23/24 21:00	1
Selenium	<0.050		0.050	0.020	mg/L		02/22/24 07:53	02/23/24 21:00	1
Silver	<0.025		0.025	0.010	mg/L		02/22/24 07:53	02/23/24 21:00	1
Zinc	**0.18**	**J**	0.50	0.020	mg/L		02/29/24 10:05	02/29/24 22:04	1

Method: SW846 6020B - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		02/22/24 07:52	02/23/24 23:21	1

Method: SW846 6020B - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^5- ^1+	0.0060	0.0060	mg/L		02/22/24 07:53	02/22/24 21:41	1
Thallium	**0.0039**		0.0020	0.0020	mg/L		02/22/24 07:53	02/22/24 21:41	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/24 10:40	02/23/24 08:46	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.018**		0.018	0.0096	mg/Kg	☼	02/20/24 12:55	02/21/24 09:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.26		0.26	0.13	mg/Kg	☼	02/19/24 10:00	02/19/24 15:36	1
pH (SW846 9045D)	**7.9**		0.2	0.2	SU			02/15/24 16:17	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
*3	ISTD response or retention time outside acceptable limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-245966-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-24

ANDREWS ENGINEERING

CHAIN OF CUSTODY RECORD

500-245966 COC

Client Contact

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3300 Ginger Creek Drive
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217-787-2334
Contact Colleen Grey
email cgrey@andrews-eng com

Laboratory

Lab: Eurofins - Chicago
Address: 2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200
Contact: Jodie Bracken
email: Jodie.Bracken@ET EurofinsUS com

Project Name: AE8-021A
Project No: PTB/WO #: 195-002/21A
TAT: [X] 15 BD [ ] 10 BD [ ] 5 BD [ ] 2 BD [ ] Other
Sampler: S. Rhodaei / M. Furman

COC No: 1 of 3
Lab Job No.: 500 245966
Sample Temp: 1.7+1.1, 4.8+4.1, 3.3+2.6

Special Instructions:

See Table 2 for complete parameter lists and minimum reporting limits

* If Total RCRA metal (mg/kg) result exceeds the Soil Toxicity Characteristics Limit (Table 3), run TCLP for that specific RCRA metal

** If SPLP result exceeds Class I Standard, run TCLP for that specific parameter

*** If total cyanide exceeds MAC, run ASTM D3987 (Neutral Leach) cyanide

Matrix Key:

W Water
S Soil
SL Sludge
S Sediment
L Leachate
DW Drinking Water
OL Oil
O Other

Lab ID	Sample ID	Sample Date	Sample Time	Matrix	VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization				Comments
1	2233V3-1-B214-1	2/8/24	0900	S	X	X					X	X	X	X	X					
2	2233V3-1-B214-2	↓	0910	↓	↓	↓					↓	↓	↓	↓	↓					
3	2233V3-1-B211-1		0920																	
4	2233V3-1-B211-1 DUP		0925																	
5	2233V3-1-B211-2		0930																	
6	2233V3-1-B212-1		0940																	
7	2233V3-1-B212-2		0950																	
8	2233V3-1-B213-1		1000																	
9	2233V3-1-B213-2		1010																	
10	2233V3-1-B215-1		1020																	
11	2233V3-1-B215-2	↓	1030	↓	✓	✓					✓	✓	✓	✓	✓					

Relinquished by	Date/Time	Received by	Date/Time
David Rhodaei	2/9/24 0835	M. J. Elkins	2/9/24 0835
M. J. Elkins	2/9/24 0923	Stephanie Hernandez EETA	2/9/24 0923
Relinquished by	Date/Time	Received by	Date/Time

ANDREWS ENGINEERING

CHAIN OF CUSTODY RECORD

Client Contact	Laboratory	
Andrews Engineering, Inc 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact Colleen Grey email cgrey@andrews-eng com	Lab **Eurofins - Chicago** Address **2417 Bond Street** **University Park, IL 60484** Phone **708-534-5200** Contact **Jodie Bracken** email Jodie Bracken@ET EurofinsUS com	Project Name AE8-021A Project No PTB/WO#:195-002 / 21A TAT ☒ 15 BD ☐ 10 BD ☐ 5 BD ☐ 2 BD ____ Other **Sampler:** S. Khodaei / M. Furman

COC No 2 of 3

Lab Job No.: 500-245964

Sample Temp:

Special Instructions:

See Table 2 for complete parameter lists and minimum reporting limits

* If Total RCRA metal (mg/kg) result exceeds the Soil Toxicity Characteristics Limit (Table 3), run TCLP for that specific RCRA metal

** If SPLP result exceeds Class I Standard, run TCLP for that specific parameter

*** If total cyanide exceeds MAC, run ASTM D3987 (Neutral Leach) cyanide

Matrix Key:

W Water
S Soil
SL Sludge
S Sediment
L Leachate
DW Drinking Water
OL Oil
O Other

Lab ID	Sample ID	Sample Date	Sample Time	Matrix	VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization				Comments
12	2233V3-1-B215-3	2/8/24	1040	S	X	X					X	X	X	X	X					
13	2233V3-1-B216-1	↓	1050	↓	↓	↓					↓	↓	↓	↓	↓					
14	2233V3-1-B216-1 DUP		1100																	
15	2233V3-1-B216-2		1110																	
16	2233V3-1-B216-3		1120																	
17	2233V3-1-B218-1		1130																	
18	2233V3-1-B218-2		1140																	
19	2233V3-1-B218-3		1150																	
20	2233V3-1-B219		1200																	
21	2233V3-1-B210-1		1210																	
22	2233V3-1-B210-2	↓	1220	↓	↓	↓					↓	↓	↓	↓	↓					

Relinquished by	Date/Time	Received by	Date/Time
Saiid Khodaei	2/9/24 0835	M. J. Ellis	2/9/24 0835
M. J. Ellis	2/9/24 0923	Stephanie Hernandez EEIA	2/9/24 0923

ANDREWS ENGINEERING

CHAIN OF CUSTODY RECORD

Client Contact	Laboratory		Project Name AE8-021A	COC No 3 of 3
Andrews Engineering, Inc 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact Colleen Grey email cgrey@andrews-eng com	Lab	**Eurofins - Chicago**	Project No PTB/WO#: 195-002 / 21A	Lab Job No.: 500-245964
	Address	**2417 Bond Street** **University Park, IL 60484**	TAT ☒ 15 BD ☐ 10 BD ☐ 5 BD ☐ 2 BD ____ Other	Sample Temp:
	Phone	**708-534-5200**		
	Contact	**Jodie Bracken**		
	email	Jodie Bracken@ET EurofinsUS com	**Sampler:** S. Khodaei / M. Furman	

Special Instructions:

See Table 2 for complete parameter lists and minimum reporting limits

* If Total RCRA metal (mg/kg) result exceeds the Soil Toxicity Characteristics Limit (Table 3), run TCLP for that specific RCRA metal

** If SPLP result exceeds Class I Standard, run TCLP for that specific parameter

*** If total cyanide exceeds MAC, run ASTM D3987 (Neutral Leach) cyanide

Matrix Key:

W Water
S Soil
SL Sludge
S Sediment
L Leachate
DW Drinking Water
OL Oil
O Other

ANALYSES

Lab ID	Sample ID	Sample Date	Sample Time	Matrix	VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization				Comments
23	2233V3-1-B234-1	2/8/24	1230	S	X	X					X	X	X	X	X					
24	2233V3-1-B234-2	↓	1240	↓	↓	↓					↓	↓	↓	↓	↓					
25	2233V3-1-B238-1	↓	1250	↓	↓	↓					↓	↓	↓	↓	↓					
26	2233V3-1-B238-2	↓	1300	↓	↓	↓					↓	↓	↓	↓	↓					
27	2233V3-1-B239-1	↓	1310	↓	↓	↓					↓	↓	↓	↓	↓					
28	2233V3-1-B239-2	↓	1320	↓	↓	↓					↓	↓	↓	↓	↓					
29	Trip Blank #2	↓		↓																

Relinquished by	Date/Time	Received by	Date/Time
Saeid Khodaei	2/9/24 0835	N. J. Ellias	2/9/24 0835
N. J. Ellias	2/9/24 0923	Stephanie Hernandez EETA	2/9/24 0923

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Colleen Grey
Andrews Engineering Inc.
3300 Ginger Creek Drive
Springfield, Illinois 62711

Generated 3/27/2024 7:05:35 PM Revision 1

JOB DESCRIPTION

IDOT - AE8-021A

JOB NUMBER

500-246014-1

Eurofins Chicago
2417 Bond Street
University Park IL 60484

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

Authorization

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Revision 1

Authorized for release by
Jodie Bracken, Project Manager I
Jodie.Bracken@ET.EurofinsUS.com
(708)534-5200

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246014-1

Client Sample ID: 2233V3-1-B227-1
Date Collected: 02/09/24 11:50
Date Received: 02/09/24 15:21

Lab Sample ID: 500-246014-22
Matrix: Solid
Percent Solids: 84.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0015		0.0015	0.00051	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00048	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00065	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
1,1-Dichloroethane	<0.0015		0.0015	0.00052	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
1,1-Dichloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
1,2-Dichloroethane	<0.0038		0.0038	0.0012	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
1,2-Dichloropropane	<0.0015		0.0015	0.00039	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
1,3-Dichloropropene, Total	<0.0015		0.0015	0.00053	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
2-Butanone (MEK)	<0.0038	*+	0.0038	0.0017	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
2-Hexanone	<0.0038		0.0038	0.0012	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
4-Methyl-2-pentanone (MIBK)	<0.0038		0.0038	0.0011	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Acetone	<0.015	*+ *1	0.015	0.0066	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Benzene	<0.0015		0.0015	0.00039	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Bromodichloromethane	<0.0015		0.0015	0.00031	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Bromoform	<0.0015		0.0015	0.00044	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Bromomethane	<0.0038		0.0038	0.0014	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Carbon disulfide	<0.0038		0.0038	0.00079	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Carbon tetrachloride	<0.0015		0.0015	0.00044	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Chlorobenzene	<0.0015		0.0015	0.00056	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Chloroethane	<0.0038		0.0038	0.0011	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Chloroform	<0.0015		0.0015	0.00052	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Chloromethane	<0.0038		0.0038	0.0015	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00042	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00046	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Dibromochloromethane	<0.0015		0.0015	0.00049	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Ethylbenzene	<0.0015		0.0015	0.00072	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00044	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Methylene Chloride	<0.0038		0.0038	0.0015	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Styrene	<0.0015		0.0015	0.00046	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Tetrachloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Toluene	<0.0015		0.0015	0.00038	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00067	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00053	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Trichloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Vinyl chloride	<0.0015		0.0015	0.00067	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1
Xylenes, Total	<0.0030		0.0030	0.00048	mg/Kg	☼	02/09/24 17:53	02/15/24 03:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 134*	*02/09/24 17:53*	*02/15/24 03:27*	*1*
4-Bromofluorobenzene (Surr)	*98*		*75 - 131*	*02/09/24 17:53*	*02/15/24 03:27*	*1*
Dibromofluoromethane	*105*		*75 - 126*	*02/09/24 17:53*	*02/15/24 03:27*	*1*
Toluene-d8 (Surr)	*105*		*75 - 124*	*02/09/24 17:53*	*02/15/24 03:27*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.027	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
1,2-Dichlorobenzene	<0.19		0.19	0.016	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
1,3-Dichlorobenzene	<0.19		0.19	0.017	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
1,4-Dichlorobenzene	<0.19		0.19	0.018	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.028	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246014-1

Client Sample ID: 2233V3-1-B227-1
Date Collected: 02/09/24 11:50
Date Received: 02/09/24 15:21

Lab Sample ID: 500-246014-22
Matrix: Solid
Percent Solids: 84.5

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.38		0.38	0.014	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
2,4,6-Trichlorophenol	<0.38		0.38	0.013	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
2,4-Dichlorophenol	<0.38		0.38	0.014	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
2,4-Dimethylphenol	<0.38	*+	0.38	0.086	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
2,4-Dinitrophenol	<0.77		0.77	0.22	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
2,4-Dinitrotoluene	<0.19		0.19	0.022	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
2,6-Dinitrotoluene	<0.19		0.19	0.013	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
2-Chloronaphthalene	<0.19		0.19	0.014	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
2-Chlorophenol	<0.19		0.19	0.012	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
2-Methylnaphthalene	<0.077		0.077	0.0077	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
2-Methylphenol	<0.19		0.19	0.020	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
2-Nitroaniline	<0.19		0.19	0.021	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
2-Nitrophenol	<0.38		0.38	0.026	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
3 & 4 Methylphenol	<0.19		0.19	0.028	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.031	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
3-Nitroaniline	<0.38		0.38	0.017	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.22	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.026	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
4-Chloro-3-methylphenol	<0.38		0.38	0.015	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
4-Chloroaniline	<0.77		0.77	0.40	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
4-Nitroaniline	<0.38		0.38	0.028	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
4-Nitrophenol	<0.77		0.77	0.14	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Acenaphthene	<0.038		0.038	0.0078	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Acenaphthylene	<0.038		0.038	0.0065	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Anthracene	<0.038		0.038	0.0078	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Benzo[a]anthracene	**0.026**	**J**	0.038	0.0081	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Benzo[a]pyrene	**0.043**		0.038	0.037	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Benzo[b]fluoranthene	**0.043**		0.038	0.037	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Benzo[g,h,i]perylene	**0.025**	**J**	0.038	0.0083	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Benzo[k]fluoranthene	<0.038		0.038	0.015	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.014	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.018	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.15	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Butyl benzyl phthalate	<0.19		0.19	0.019	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Carbazole	<0.19		0.19	0.015	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Chrysene	**0.031**	**J**	0.038	0.010	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Dibenz(a,h)anthracene	<0.038		0.038	0.038	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Dibenzofuran	<0.19		0.19	0.014	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Diethyl phthalate	<0.19		0.19	0.018	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Dimethyl phthalate	<0.19		0.19	0.0083	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Di-n-butyl phthalate	<0.19		0.19	0.012	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Di-n-octyl phthalate	<0.38		0.38	0.27	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Fluoranthene	**0.044**		0.038	0.0089	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Fluorene	<0.038		0.038	0.011	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Hexachlorobenzene	<0.077		0.077	0.0074	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Hexachlorobutadiene	<0.19		0.19	0.022	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Hexachlorocyclopentadiene	<0.77	*+	0.77	0.41	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Hexachloroethane	<0.19		0.19	0.019	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246014-1

Client Sample ID: 2233V3-1-B227-1
Date Collected: 02/09/24 11:50
Date Received: 02/09/24 15:21

Lab Sample ID: 500-246014-22
Matrix: Solid
Percent Solids: 84.5

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	**0.045**		0.038	0.037	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Isophorone	<0.19		0.19	0.020	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Naphthalene	<0.038		0.038	0.0069	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Nitrobenzene	<0.038		0.038	0.012	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.0076	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
N-Nitrosodiphenylamine	<0.19		0.19	0.023	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Pentachlorophenol	<0.77		0.77	0.096	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Phenanthrene	**0.016**	**J**	0.038	0.0083	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Phenol	<0.19		0.19	0.017	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1
Pyrene	**0.037**	**J**	0.038	0.010	mg/Kg	☼	02/14/24 07:59	02/16/24 13:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*83*		*31 - 143*	*02/14/24 07:59*	*02/16/24 13:15*	*1*
2-Fluorobiphenyl	*71*		*43 - 145*	*02/14/24 07:59*	*02/16/24 13:15*	*1*
2-Fluorophenol	*68*		*31 - 166*	*02/14/24 07:59*	*02/16/24 13:15*	*1*
Nitrobenzene-d5 (Surr)	*61*		*37 - 147*	*02/14/24 07:59*	*02/16/24 13:15*	*1*
Phenol-d5	*72*		*30 - 153*	*02/14/24 07:59*	*02/16/24 13:15*	*1*
Terphenyl-d14 (Surr)	*89*		*42 - 157*	*02/14/24 07:59*	*02/16/24 13:15*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.3		2.3	0.44	mg/Kg	☼	02/13/24 09:22	02/16/24 15:26	1
Arsenic	**7.1**		1.1	0.39	mg/Kg	☼	02/13/24 09:22	02/16/24 15:26	1
Barium	**62**	**B**	1.0	0.12	mg/Kg	☼	02/19/24 17:55	02/21/24 17:11	1
Beryllium	**0.82**		0.45	0.11	mg/Kg	☼	02/13/24 09:22	02/15/24 22:14	1
Boron	**17**		5.7	0.53	mg/Kg	☼	02/23/24 08:57	02/28/24 13:20	1
Cadmium	**0.20**	**J B**	0.23	0.041	mg/Kg	☼	02/13/24 09:22	02/16/24 15:26	1
Calcium	**49000**	**B**	21	3.5	mg/Kg	☼	02/19/24 17:55	02/21/24 17:11	1
Chromium	**21**		1.1	0.56	mg/Kg	☼	02/13/24 09:22	02/16/24 15:26	1
Cobalt	**11**		0.56	0.15	mg/Kg	☼	02/13/24 09:22	02/16/24 15:26	1
Copper	**21**		1.1	0.32	mg/Kg	☼	02/13/24 09:22	02/16/24 15:26	1
Iron	**25000**		23	12	mg/Kg	☼	02/13/24 09:22	02/16/24 15:26	1
Lead	**14**		0.56	0.26	mg/Kg	☼	02/13/24 09:22	02/16/24 15:26	1
Magnesium	**20000**		11	5.6	mg/Kg	☼	02/13/24 09:22	02/16/24 15:26	1
Manganese	**360**	**B**	1.1	0.16	mg/Kg	☼	02/13/24 09:22	02/16/24 15:26	1
Nickel	**32**		1.1	0.33	mg/Kg	☼	02/13/24 09:22	02/16/24 15:26	1
Potassium	**3400**		52	18	mg/Kg	☼	02/19/24 17:55	02/21/24 17:11	1
Selenium	**0.75**	**J**	1.1	0.66	mg/Kg	☼	02/13/24 09:22	02/16/24 15:26	1
Silver	<0.56		0.56	0.15	mg/Kg	☼	02/13/24 09:22	02/16/24 15:26	1
Sodium	**1600**		100	15	mg/Kg	☼	02/19/24 17:55	02/21/24 17:11	1
Thallium	<1.1		1.1	0.56	mg/Kg	☼	02/13/24 09:22	02/16/24 15:26	1
Vanadium	**24**		0.56	0.13	mg/Kg	☼	02/13/24 09:22	02/16/24 15:26	1
Zinc	**64**		2.3	0.99	mg/Kg	☼	02/13/24 09:22	02/16/24 15:26	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		02/22/24 07:52	02/23/24 18:24	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/22/24 07:52	02/23/24 18:24	1
Chromium	<0.025		0.025	0.010	mg/L		02/22/24 07:52	02/23/24 18:24	1
Iron	**0.38**	**J**	0.40	0.20	mg/L		02/22/24 07:52	02/23/24 18:24	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246014-1

Client Sample ID: 2233V3-1-B227-1
Date Collected: 02/09/24 11:50
Date Received: 02/09/24 15:21

Lab Sample ID: 500-246014-22
Matrix: Solid
Percent Solids: 84.5

Method: SW846 6010D - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		02/22/24 07:52	02/23/24 18:24	1
Manganese	**0.68**		0.025	0.010	mg/L		02/22/24 07:52	02/23/24 18:24	1
Nickel	<0.025		0.025	0.010	mg/L		02/22/24 07:52	02/23/24 18:24	1

Method: SW846 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.070**		0.050	0.010	mg/L		02/22/24 07:53	02/23/24 20:14	1
Barium	**0.38**	**J**	0.50	0.050	mg/L		02/22/24 07:53	02/23/24 20:14	1
Beryllium	**0.0080**		0.0040	0.0040	mg/L		02/22/24 07:53	02/23/24 20:14	1
Boron	**0.38**		0.10	0.050	mg/L		02/22/24 07:53	02/28/24 14:16	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/22/24 07:53	02/23/24 20:14	1
Calcium	**42**		2.5	0.50	mg/L		02/22/24 07:53	02/23/24 20:14	1
Chromium	**0.15**		0.025	0.010	mg/L		02/22/24 07:53	02/23/24 20:14	1
Cobalt	**0.065**		0.025	0.010	mg/L		02/22/24 07:53	02/28/24 14:16	1
Iron	**160**		0.40	0.20	mg/L		02/22/24 07:53	02/23/24 20:14	1
Lead	**0.11**		0.0075	0.0075	mg/L		02/22/24 07:53	02/27/24 22:18	1
Manganese	**0.59**		0.025	0.010	mg/L		02/22/24 07:53	02/23/24 20:14	1
Nickel	**0.17**		0.025	0.010	mg/L		02/22/24 07:53	02/23/24 20:14	1
Potassium	**37**		2.5	0.50	mg/L		02/22/24 07:53	02/23/24 20:14	1
Selenium	<0.050		0.050	0.020	mg/L		02/22/24 07:53	02/23/24 20:14	1
Silver	<0.025		0.025	0.010	mg/L		02/22/24 07:53	02/23/24 20:14	1
Zinc	**0.56**		0.50	0.020	mg/L		02/22/24 07:53	02/28/24 14:16	1

Method: SW846 6020B - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^5- ^1+	0.0060	0.0060	mg/L		02/22/24 07:53	02/22/24 21:00	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/22/24 07:53	02/22/24 21:00	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/24 10:40	02/23/24 08:27	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.017**		0.017	0.0092	mg/Kg	☼	02/19/24 14:30	02/20/24 10:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.25		0.25	0.13	mg/Kg	☼	02/15/24 12:15	02/15/24 14:32	1
pH (SW846 9045D)	**7.6**		0.2	0.2	SU			02/16/24 18:40	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246014-1

Client Sample ID: 2233V3-1-B227-2
Date Collected: 02/09/24 12:00
Date Received: 02/09/24 15:21

Lab Sample ID: 500-246014-23
Matrix: Solid
Percent Solids: 84.2

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0014		0.0014	0.00047	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
1,1,2,2-Tetrachloroethane	<0.0014		0.0014	0.00045	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
1,1,2-Trichloroethane	<0.0014		0.0014	0.00060	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
1,1-Dichloroethane	<0.0014		0.0014	0.00048	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
1,1-Dichloroethene	<0.0014		0.0014	0.00048	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
1,2-Dichloroethane	<0.0035		0.0035	0.0011	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
1,2-Dichloropropane	<0.0014		0.0014	0.00036	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
1,3-Dichloropropene, Total	<0.0014		0.0014	0.00049	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
2-Butanone (MEK)	<0.0035	*+	0.0035	0.0016	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
2-Hexanone	<0.0035		0.0035	0.0011	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
4-Methyl-2-pentanone (MIBK)	<0.0035		0.0035	0.0010	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Acetone	<0.014	*+ *1	0.014	0.0061	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Benzene	<0.0014		0.0014	0.00036	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Bromodichloromethane	<0.0014		0.0014	0.00029	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Bromoform	<0.0014		0.0014	0.00041	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Bromomethane	<0.0035		0.0035	0.0013	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Carbon disulfide	<0.0035		0.0035	0.00073	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Carbon tetrachloride	<0.0014		0.0014	0.00041	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Chlorobenzene	<0.0014		0.0014	0.00052	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Chloroethane	<0.0035		0.0035	0.0010	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Chloroform	<0.0014		0.0014	0.00049	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Chloromethane	<0.0035		0.0035	0.0014	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
cis-1,2-Dichloroethene	<0.0014		0.0014	0.00039	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
cis-1,3-Dichloropropene	<0.0014		0.0014	0.00042	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Dibromochloromethane	<0.0014		0.0014	0.00046	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Ethylbenzene	<0.0014		0.0014	0.00067	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Methyl tert-butyl ether	<0.0014		0.0014	0.00041	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Methylene Chloride	<0.0035		0.0035	0.0014	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Styrene	<0.0014		0.0014	0.00042	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Tetrachloroethene	<0.0014		0.0014	0.00048	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Toluene	<0.0014		0.0014	0.00035	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
trans-1,2-Dichloroethene	<0.0014		0.0014	0.00062	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
trans-1,3-Dichloropropene	<0.0014		0.0014	0.00049	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Trichloroethene	<0.0014		0.0014	0.00047	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Vinyl chloride	<0.0014		0.0014	0.00062	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1
Xylenes, Total	<0.0028		0.0028	0.00045	mg/Kg	☼	02/09/24 17:53	02/15/24 03:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*70 - 134*	*02/09/24 17:53*	*02/15/24 03:52*	*1*
4-Bromofluorobenzene (Surr)	*96*		*75 - 131*	*02/09/24 17:53*	*02/15/24 03:52*	*1*
Dibromofluoromethane	*107*		*75 - 126*	*02/09/24 17:53*	*02/15/24 03:52*	*1*
Toluene-d8 (Surr)	*105*		*75 - 124*	*02/09/24 17:53*	*02/15/24 03:52*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.027	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
1,2-Dichlorobenzene	<0.19		0.19	0.016	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
1,3-Dichlorobenzene	<0.19		0.19	0.017	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
1,4-Dichlorobenzene	<0.19		0.19	0.018	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.028	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246014-1

Client Sample ID: 2233V3-1-B227-2
Date Collected: 02/09/24 12:00
Date Received: 02/09/24 15:21

Lab Sample ID: 500-246014-23
Matrix: Solid
Percent Solids: 84.2

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.38		0.38	0.014	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
2,4,6-Trichlorophenol	<0.38		0.38	0.013	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
2,4-Dichlorophenol	<0.38		0.38	0.014	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
2,4-Dimethylphenol	<0.38	*+	0.38	0.086	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
2,4-Dinitrophenol	<0.78		0.78	0.22	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
2,4-Dinitrotoluene	<0.19		0.19	0.022	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
2,6-Dinitrotoluene	<0.19		0.19	0.013	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
2-Chloronaphthalene	<0.19		0.19	0.014	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
2-Chlorophenol	<0.19		0.19	0.012	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
2-Methylnaphthalene	<0.078		0.078	0.0077	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
2-Methylphenol	<0.19		0.19	0.020	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
2-Nitroaniline	<0.19		0.19	0.021	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
2-Nitrophenol	<0.38		0.38	0.026	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
3 & 4 Methylphenol	<0.19		0.19	0.028	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.031	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
3-Nitroaniline	<0.38		0.38	0.018	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.22	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.026	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
4-Chloro-3-methylphenol	<0.38		0.38	0.015	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
4-Chloroaniline	<0.78		0.78	0.40	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
4-Nitroaniline	<0.38		0.38	0.028	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
4-Nitrophenol	<0.78		0.78	0.14	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Acenaphthene	<0.038		0.038	0.0078	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Acenaphthylene	<0.038		0.038	0.0065	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Anthracene	<0.038		0.038	0.0079	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Benzo[a]anthracene	**0.0090**	**J**	0.038	0.0082	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Benzo[a]pyrene	<0.038		0.038	0.037	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Benzo[b]fluoranthene	<0.038		0.038	0.037	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Benzo[g,h,i]perylene	<0.038		0.038	0.0083	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Benzo[k]fluoranthene	<0.038		0.038	0.015	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.014	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.018	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.15	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Butyl benzyl phthalate	<0.19		0.19	0.019	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Carbazole	<0.19		0.19	0.015	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Dibenz(a,h)anthracene	<0.038		0.038	0.038	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Dibenzofuran	<0.19		0.19	0.014	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Diethyl phthalate	<0.19		0.19	0.018	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Dimethyl phthalate	<0.19		0.19	0.0084	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Di-n-butyl phthalate	<0.19		0.19	0.012	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Di-n-octyl phthalate	<0.38		0.38	0.27	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Fluoranthene	<0.038		0.038	0.0089	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Fluorene	<0.038		0.038	0.011	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Hexachlorobenzene	<0.078		0.078	0.0074	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Hexachlorobutadiene	<0.19		0.19	0.022	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Hexachlorocyclopentadiene	<0.78	*+	0.78	0.41	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Hexachloroethane	<0.19		0.19	0.019	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246014-1

Client Sample ID: 2233V3-1-B227-2
Date Collected: 02/09/24 12:00
Date Received: 02/09/24 15:21

Lab Sample ID: 500-246014-23
Matrix: Solid
Percent Solids: 84.2

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.037	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Isophorone	<0.19		0.19	0.020	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Naphthalene	<0.038		0.038	0.0070	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Nitrobenzene	<0.038		0.038	0.012	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.0076	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
N-Nitrosodiphenylamine	<0.19		0.19	0.023	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Pentachlorophenol	<0.78		0.78	0.096	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Phenanthrene	<0.038		0.038	0.0084	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Phenol	<0.19		0.19	0.017	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1
Pyrene	<0.038		0.038	0.011	mg/Kg	☼	02/14/24 07:59	02/14/24 19:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*67*		*31 - 143*	*02/14/24 07:59*	*02/14/24 19:49*	*1*
2-Fluorobiphenyl	*59*		*43 - 145*	*02/14/24 07:59*	*02/14/24 19:49*	*1*
2-Fluorophenol	*57*		*31 - 166*	*02/14/24 07:59*	*02/14/24 19:49*	*1*
Nitrobenzene-d5 (Surr)	*61*		*37 - 147*	*02/14/24 07:59*	*02/14/24 19:49*	*1*
Phenol-d5	*64*		*30 - 153*	*02/14/24 07:59*	*02/14/24 19:49*	*1*
Terphenyl-d14 (Surr)	*85*		*42 - 157*	*02/14/24 07:59*	*02/14/24 19:49*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.2		2.2	0.43	mg/Kg	☼	02/13/24 09:22	02/16/24 15:29	1
Arsenic	**10**		1.1	0.38	mg/Kg	☼	02/13/24 09:22	02/16/24 15:29	1
Barium	**43**	**B**	1.1	0.13	mg/Kg	☼	02/19/24 17:55	02/21/24 17:15	1
Beryllium	**0.76**		0.44	0.10	mg/Kg	☼	02/13/24 09:22	02/15/24 22:18	1
Boron	**15**		5.3	0.50	mg/Kg	☼	02/23/24 08:57	02/28/24 13:24	1
Cadmium	**0.14**	**J B**	0.22	0.040	mg/Kg	☼	02/13/24 09:22	02/16/24 15:29	1
Calcium	**41000**	**B**	22	3.8	mg/Kg	☼	02/19/24 17:55	02/21/24 17:15	1
Chromium	**20**		1.1	0.55	mg/Kg	☼	02/13/24 09:22	02/16/24 15:29	1
Cobalt	**15**		0.56	0.15	mg/Kg	☼	02/13/24 09:22	02/16/24 15:29	1
Copper	**24**		1.1	0.31	mg/Kg	☼	02/13/24 09:22	02/16/24 15:29	1
Iron	**25000**		22	12	mg/Kg	☼	02/13/24 09:22	02/16/24 15:29	1
Lead	**14**		0.56	0.26	mg/Kg	☼	02/13/24 09:22	02/16/24 15:29	1
Magnesium	**20000**		11	5.5	mg/Kg	☼	02/13/24 09:22	02/16/24 15:29	1
Manganese	**400**	**B**	1.1	0.16	mg/Kg	☼	02/13/24 09:22	02/16/24 15:29	1
Nickel	**36**		1.1	0.32	mg/Kg	☼	02/13/24 09:22	02/16/24 15:29	1
Potassium	**3600**		56	20	mg/Kg	☼	02/19/24 17:55	02/21/24 17:15	1
Selenium	**0.86**	**J**	1.1	0.65	mg/Kg	☼	02/13/24 09:22	02/16/24 15:29	1
Silver	<0.56		0.56	0.14	mg/Kg	☼	02/13/24 09:22	02/16/24 15:29	1
Sodium	**870**		110	17	mg/Kg	☼	02/19/24 17:55	02/21/24 17:15	1
Thallium	<1.1		1.1	0.55	mg/Kg	☼	02/13/24 09:22	02/16/24 15:29	1
Vanadium	**24**		0.56	0.13	mg/Kg	☼	02/13/24 09:22	02/16/24 15:29	1
Zinc	**63**		2.2	0.98	mg/Kg	☼	02/13/24 09:22	02/16/24 15:29	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		02/22/24 07:52	02/23/24 18:28	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/22/24 07:52	02/23/24 18:28	1
Chromium	<0.025		0.025	0.010	mg/L		02/22/24 07:52	02/23/24 18:28	1
Iron	**0.84**		0.40	0.20	mg/L		02/22/24 07:52	02/23/24 18:28	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246014-1

Client Sample ID: 2233V3-1-B227-2
Date Collected: 02/09/24 12:00
Date Received: 02/09/24 15:21

Lab Sample ID: 500-246014-23
Matrix: Solid
Percent Solids: 84.2

Method: SW846 6010D - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		02/22/24 07:52	02/23/24 18:28	1
Manganese	**0.75**		0.025	0.010	mg/L		02/22/24 07:52	02/23/24 18:28	1
Nickel	<0.025		0.025	0.010	mg/L		02/22/24 07:52	02/23/24 18:28	1

Method: SW846 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.069**		0.050	0.010	mg/L		02/22/24 07:53	02/23/24 20:28	1
Barium	**0.34**	**J**	0.50	0.050	mg/L		02/22/24 07:53	02/23/24 20:28	1
Beryllium	**0.0068**		0.0040	0.0040	mg/L		02/22/24 07:53	02/23/24 20:28	1
Boron	**0.33**		0.10	0.050	mg/L		02/22/24 07:53	02/28/24 14:29	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/22/24 07:53	02/23/24 20:28	1
Calcium	**42**		2.5	0.50	mg/L		02/22/24 07:53	02/23/24 20:28	1
Chromium	**0.14**		0.025	0.010	mg/L		02/22/24 07:53	02/23/24 20:28	1
Cobalt	**0.050**		0.025	0.010	mg/L		02/22/24 07:53	02/28/24 14:29	1
Iron	**150**		0.40	0.20	mg/L		02/22/24 07:53	02/23/24 20:28	1
Lead	**0.092**		0.0075	0.0075	mg/L		02/22/24 07:53	02/27/24 22:21	1
Manganese	**0.50**		0.025	0.010	mg/L		02/22/24 07:53	02/23/24 20:28	1
Nickel	**0.19**		0.025	0.010	mg/L		02/22/24 07:53	02/28/24 14:29	1
Potassium	**36**		2.5	0.50	mg/L		02/22/24 07:53	02/23/24 20:28	1
Selenium	<0.050		0.050	0.020	mg/L		02/22/24 07:53	02/23/24 20:28	1
Silver	<0.025		0.025	0.010	mg/L		02/22/24 07:53	02/23/24 20:28	1
Zinc	**0.44**	**J ^+**	0.50	0.020	mg/L		02/22/24 07:53	02/28/24 14:29	1

Method: SW846 6020B - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		02/22/24 07:52	02/23/24 23:25	1

Method: SW846 6020B - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^5- ^1+	0.0060	0.0060	mg/L		02/22/24 07:53	02/22/24 21:03	1
Thallium	**0.0022**		0.0020	0.0020	mg/L		02/22/24 07:53	02/22/24 21:03	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/24 10:40	02/23/24 08:29	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.023**		0.017	0.0092	mg/Kg	☼	02/19/24 14:30	02/20/24 10:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.27		0.27	0.13	mg/Kg	☼	02/15/24 12:15	02/15/24 14:45	1
pH (SW846 9045D)	**7.2**		0.2	0.2	SU			02/16/24 18:43	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
^3-	Reporting Limit Check Standard is outside acceptance limits, low biased.
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246014-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-24

ANDREWS ENGINEERING

CHAIN OF CUSTODY RECORD

Client Contact	Laboratory	
Andrews Engineering, Inc 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact Colleen Grey email cgrey@andrews-eng com	Lab **Eurofins - Chicago** Address **2417 Bond Street** **University Park, IL 60484** Phone **708-534-5200** Contact **Jodie Bracken** email Jodie Bracken@ET EurofinsUS com	Project Name AE8-021A Project No PTB (WO#: 195-002 /21A TAT ☒ 15 BD ☐ 10 BD ☐ 5 BD ☐ 2 BD ____ Other Sampler: S. Khojaei / M. Furman

COC No 2 of 4

Lab Job No.: 500-246014

Sample Temp:

Special Instructions:

See Table 2 for complete parameter lists and minimum reporting limits

* If Total RCRA metal (mg/kg) result exceeds the Soil Toxicity Characteristics Limit (Table 3), run TCLP for that specific RCRA metal

** If SPLP result exceeds Class I Standard, run TCLP for that specific parameter

*** If total cyanide exceeds MAC, run ASTM D3987 (Neutral Leach) cyanide

Matrix Key:

W Water
S Soil
SL Sludge
S Sediment
L Leachate
DW Drinking Water
OL Oil
O Other

Lab ID	Sample ID	Sample Date	Sample Time	Matrix	ANALYSES: VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization				Comments
12	2233V3-1-B220-1 DUP	2/9/24	1010	S	X	X					X	X	X	X	X					
13	2233V3-1-B220-2		1020																	
14	2233V3-1-B222-1		1030																	
15	2233V3-1-B222-2		1040																	
16	2233V3-1-B223-1		1050																	
17	2233V3-1-B223-2		1100																	
18	2233V3-1-B224-1		1110																	
19	2233V3-1-B224-2		1120																	
20	2233V3-1-B228-1		1130																	
21	2233V3-1-B228-2		1140																	
22	2233V3-1-B227-1	↓	1150	↓	✓	✓					✓	✓	✓	✓	✓					

Relinquished by	Date/Time 2/9/24 1430	Received by	Date/Time 2/9/24 1430
Relinquished by	Date/Time 2/9/24 1521	Received by	Date/Time 2/9/24 1521
Relinquished by	Date/Time	Received by	Date/Time

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Colleen Grey
Andrews Engineering Inc.
3300 Ginger Creek Drive
Springfield, Illinois 62711

Generated 3/2/2024 4:43:45 PM Revision 1

JOB DESCRIPTION

IDOT - AE8-021A

JOB NUMBER

500-246015-1

Eurofins Chicago
2417 Bond Street
University Park IL 60484

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

Authorization

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3/2/2024 4:43:45 PM
Revision 1

Authorized for release by
Jodie Bracken, Project Manager I
Jodie.Bracken@ET.EurofinsUS.com
(708)534-5200

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246015-1

Client Sample ID: 2233V3-1-245-1
Date Collected: 02/09/24 13:40
Date Received: 02/09/24 15:21

Lab Sample ID: 500-246015-10
Matrix: Solid
Percent Solids: 84.0

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0015		0.0015	0.00049	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00046	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00062	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
1,1-Dichloroethane	<0.0015		0.0015	0.00050	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
1,1-Dichloroethene	<0.0015		0.0015	0.00050	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
1,2-Dichloroethane	<0.0036		0.0036	0.0011	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
1,2-Dichloropropane	<0.0015		0.0015	0.00038	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
1,3-Dichloropropene, Total	<0.0015		0.0015	0.00051	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
2-Butanone (MEK)	<0.0036		0.0036	0.0016	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
2-Hexanone	<0.0036		0.0036	0.0011	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
4-Methyl-2-pentanone (MIBK)	<0.0036		0.0036	0.0011	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Acetone	<0.015		0.015	0.0063	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Benzene	<0.0015		0.0015	0.00037	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Bromodichloromethane	<0.0015		0.0015	0.00030	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Bromoform	<0.0015		0.0015	0.00042	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Bromomethane	<0.0036		0.0036	0.0014	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Carbon disulfide	<0.0036		0.0036	0.00076	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Carbon tetrachloride	<0.0015		0.0015	0.00042	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Chlorobenzene	<0.0015		0.0015	0.00054	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Chloroethane	<0.0036		0.0036	0.0011	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Chloroform	<0.0015		0.0015	0.00050	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Chloromethane	<0.0036		0.0036	0.0015	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00041	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00044	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Dibromochloromethane	<0.0015		0.0015	0.00048	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Ethylbenzene	<0.0015		0.0015	0.00070	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00043	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Methylene Chloride	<0.0036		0.0036	0.0014	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Styrene	<0.0015		0.0015	0.00044	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Tetrachloroethene	<0.0015		0.0015	0.00050	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Toluene	<0.0015		0.0015	0.00037	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00064	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00051	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Trichloroethene	<0.0015		0.0015	0.00049	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Vinyl chloride	<0.0015		0.0015	0.00064	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1
Xylenes, Total	<0.0029		0.0029	0.00047	mg/Kg	☼	02/09/24 17:53	02/14/24 02:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*129*		*70 - 134*	*02/09/24 17:53*	*02/14/24 02:21*	*1*
4-Bromofluorobenzene (Surr)	*104*		*75 - 131*	*02/09/24 17:53*	*02/14/24 02:21*	*1*
Dibromofluoromethane	*120*		*75 - 126*	*02/09/24 17:53*	*02/14/24 02:21*	*1*
Toluene-d8 (Surr)	*103*		*75 - 124*	*02/09/24 17:53*	*02/14/24 02:21*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.028	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
1,2-Dichlorobenzene	<0.19		0.19	0.016	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
1,3-Dichlorobenzene	<0.19		0.19	0.018	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
1,4-Dichlorobenzene	<0.19		0.19	0.018	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.028	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246015-1

Client Sample ID: 2233V3-1-245-1
Date Collected: 02/09/24 13:40
Date Received: 02/09/24 15:21

Lab Sample ID: 500-246015-10
Matrix: Solid
Percent Solids: 84.0

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.015	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
2,4,6-Trichlorophenol	<0.39		0.39	0.013	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
2,4-Dichlorophenol	<0.39		0.39	0.014	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
2,4-Dimethylphenol	<0.39		0.39	0.087	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
2,4-Dinitrophenol	<0.78		0.78	0.22	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
2,4-Dinitrotoluene	<0.19		0.19	0.022	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
2,6-Dinitrotoluene	<0.19		0.19	0.013	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
2-Chloronaphthalene	<0.19		0.19	0.014	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
2-Chlorophenol	<0.19		0.19	0.012	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
2-Methylnaphthalene	<0.078		0.078	0.0078	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
2-Methylphenol	<0.19		0.19	0.020	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
2-Nitroaniline	<0.19		0.19	0.021	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
2-Nitrophenol	<0.39		0.39	0.026	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
3 & 4 Methylphenol	<0.19		0.19	0.028	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.032	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
3-Nitroaniline	<0.39		0.39	0.018	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.22	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.026	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
4-Chloro-3-methylphenol	<0.39		0.39	0.015	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
4-Chloroaniline	<0.78		0.78	0.41	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
4-Nitroaniline	<0.39		0.39	0.029	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
4-Nitrophenol	<0.78		0.78	0.14	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Acenaphthene	<0.039		0.039	0.0079	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Acenaphthylene	<0.039		0.039	0.0066	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Anthracene	<0.039		0.039	0.0079	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Benzo[a]anthracene	<0.039		0.039	0.0082	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Benzo[a]pyrene	<0.039		0.039	0.037	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Benzo[b]fluoranthene	<0.039		0.039	0.037	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Benzo[g,h,i]perylene	<0.039		0.039	0.0084	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Benzo[k]fluoranthene	<0.039		0.039	0.015	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.014	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.018	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.15	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Butyl benzyl phthalate	<0.19		0.19	0.019	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Carbazole	<0.19		0.19	0.015	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Chrysene	<0.039		0.039	0.010	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Dibenz(a,h)anthracene	<0.039		0.039	0.039	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Dibenzofuran	<0.19		0.19	0.014	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Diethyl phthalate	<0.19		0.19	0.018	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Dimethyl phthalate	<0.19		0.19	0.0084	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Di-n-butyl phthalate	<0.19		0.19	0.012	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Di-n-octyl phthalate	<0.39		0.39	0.27	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Fluoranthene	<0.039		0.039	0.0090	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Fluorene	<0.039		0.039	0.011	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Hexachlorobenzene	<0.078		0.078	0.0074	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Hexachlorobutadiene	<0.19		0.19	0.022	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Hexachlorocyclopentadiene	<0.78		0.78	0.41	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Hexachloroethane	<0.19		0.19	0.019	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1

Client Sample ID: 2233V3-1-245-1
Date Collected: 02/09/24 13:40
Date Received: 02/09/24 15:21

Lab Sample ID: 500-246015-10
Matrix: Solid
Percent Solids: 84.0

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.038	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Isophorone	<0.19		0.19	0.020	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Naphthalene	<0.039		0.039	0.0070	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Nitrobenzene	<0.039		0.039	0.012	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.0076	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
N-Nitrosodiphenylamine	<0.19		0.19	0.023	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Pentachlorophenol	<0.78		0.78	0.097	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Phenanthrene	<0.039		0.039	0.0084	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Phenol	<0.19		0.19	0.017	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1
Pyrene	<0.039		0.039	0.011	mg/Kg	☼	02/15/24 07:50	02/15/24 19:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*69*		*31 - 143*	*02/15/24 07:50*	*02/15/24 19:30*	*1*
2-Fluorobiphenyl	*54*		*43 - 145*	*02/15/24 07:50*	*02/15/24 19:30*	*1*
2-Fluorophenol	*56*		*31 - 166*	*02/15/24 07:50*	*02/15/24 19:30*	*1*
Nitrobenzene-d5 (Surr)	*54*		*37 - 147*	*02/15/24 07:50*	*02/15/24 19:30*	*1*
Phenol-d5	*57*		*30 - 153*	*02/15/24 07:50*	*02/15/24 19:30*	*1*
Terphenyl-d14 (Surr)	*82*		*42 - 157*	*02/15/24 07:50*	*02/15/24 19:30*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.3		2.3	0.44	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1
Arsenic	**7.5**		1.1	0.39	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1
Barium	**59**		1.1	0.13	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1
Beryllium	**0.83**		0.46	0.11	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1
Boron	**15**		5.7	0.53	mg/Kg	☼	02/14/24 09:04	02/21/24 05:06	1
Cadmium	**0.16**	**J**	0.23	0.041	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1
Calcium	**44000**	**B**	23	3.9	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1
Chromium	**22**		1.1	0.56	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1
Cobalt	**12**		0.57	0.15	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1
Copper	**22**		1.1	0.32	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1
Iron	**22000**		23	12	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1
Lead	**12**		0.57	0.26	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1
Magnesium	**21000**		11	5.6	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1
Manganese	**290**		1.1	0.17	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1
Nickel	**31**		1.1	0.33	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1
Potassium	**3900**		57	20	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1
Selenium	<1.1		1.1	0.67	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1
Silver	<0.57		0.57	0.15	mg/Kg	☼	02/14/24 09:04	02/21/24 05:06	1
Sodium	**1800**	**B**	110	17	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1
Thallium	<1.1		1.1	0.57	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1
Vanadium	**27**		0.57	0.13	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1
Zinc	**61**		2.3	1.0	mg/Kg	☼	02/14/24 09:04	02/15/24 20:54	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		02/22/24 15:17	02/23/24 16:31	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/22/24 15:17	02/23/24 16:31	1
Chromium	<0.025		0.025	0.010	mg/L		02/22/24 15:17	02/23/24 16:31	1
Iron	**2.2**		0.40	0.20	mg/L		02/22/24 15:17	02/23/24 16:31	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246015-1

Client Sample ID: 2233V3-1-245-1
Date Collected: 02/09/24 13:40
Date Received: 02/09/24 15:21

Lab Sample ID: 500-246015-10
Matrix: Solid
Percent Solids: 84.0

Method: SW846 6010D - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		02/22/24 15:17	02/23/24 16:31	1
Manganese	**1.2**		0.025	0.010	mg/L		02/22/24 15:17	02/23/24 16:31	1
Nickel	<0.025		0.025	0.010	mg/L		02/22/24 15:17	02/23/24 16:31	1

Method: SW846 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.081**		0.050	0.010	mg/L		02/23/24 08:27	02/24/24 04:17	1
Barium	**0.46**	**J**	0.50	0.050	mg/L		02/23/24 08:27	02/24/24 04:17	1
Beryllium	**0.0094**		0.0040	0.0040	mg/L		02/23/24 08:27	02/24/24 04:17	1
Boron	**0.22**		0.10	0.050	mg/L		02/23/24 08:27	02/24/24 04:17	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/24 08:27	02/24/24 04:17	1
Calcium	**47**		2.5	0.50	mg/L		02/23/24 08:27	02/24/24 04:17	1
Chromium	**0.17**		0.025	0.010	mg/L		02/23/24 08:27	02/24/24 04:17	1
Cobalt	**0.063**		0.025	0.010	mg/L		02/23/24 08:27	02/24/24 04:17	1
Iron	**190**		0.40	0.20	mg/L		02/23/24 08:27	02/24/24 04:17	1
Lead	**0.079**	**^5-**	0.0075	0.0075	mg/L		02/23/24 08:27	02/24/24 04:17	1
Manganese	**0.75**		0.025	0.010	mg/L		02/23/24 08:27	02/24/24 04:17	1
Nickel	**0.22**		0.025	0.010	mg/L		02/23/24 08:27	02/24/24 04:17	1
Potassium	**43**		2.5	0.50	mg/L		02/23/24 08:27	02/24/24 04:17	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/24 08:27	02/24/24 04:17	1
Silver	<0.025		0.025	0.010	mg/L		02/23/24 08:27	02/24/24 04:17	1
Zinc	**0.47**	**J ^+**	0.50	0.020	mg/L		02/23/24 08:27	02/24/24 04:17	1

Method: SW846 6020B - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		02/22/24 15:17	02/29/24 18:07	1

Method: SW846 6020B - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/24 08:27	02/26/24 20:16	1
Thallium	**0.0024**		0.0020	0.0020	mg/L		02/23/24 08:27	02/27/24 13:57	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/24 10:50	02/26/24 10:27	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.020**		0.019	0.010	mg/Kg	☼	02/19/24 14:30	02/20/24 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.25		0.25	0.13	mg/Kg	☼	02/19/24 14:30	02/21/24 15:08	1
pH (SW846 9045D)	**8.3**	**H**	0.2	0.2	SU			02/19/24 17:07	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246015-1

Client Sample ID: 2233V3-1-245-2
Date Collected: 02/09/24 13:50
Date Received: 02/09/24 15:21

Lab Sample ID: 500-246015-11
Matrix: Solid
Percent Solids: 83.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0015		0.0015	0.00050	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00048	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00064	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
1,1-Dichloroethane	<0.0015		0.0015	0.00051	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
1,1-Dichloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
1,2-Dichloroethane	<0.0037		0.0037	0.0012	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
1,2-Dichloropropane	<0.0015		0.0015	0.00039	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
1,3-Dichloropropene, Total	<0.0015		0.0015	0.00053	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
2-Butanone (MEK)	<0.0037		0.0037	0.0017	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
2-Hexanone	<0.0037		0.0037	0.0012	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
4-Methyl-2-pentanone (MIBK)	<0.0037		0.0037	0.0011	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Acetone	<0.015		0.015	0.0065	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Benzene	<0.0015		0.0015	0.00038	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Bromodichloromethane	<0.0015		0.0015	0.00031	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Bromoform	<0.0015		0.0015	0.00044	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Bromomethane	<0.0037		0.0037	0.0014	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Carbon disulfide	<0.0037		0.0037	0.00078	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Carbon tetrachloride	<0.0015		0.0015	0.00043	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Chlorobenzene	<0.0015		0.0015	0.00055	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Chloroethane	<0.0037		0.0037	0.0011	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Chloroform	<0.0015		0.0015	0.00052	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Chloromethane	<0.0037		0.0037	0.0015	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00042	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00045	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Dibromochloromethane	<0.0015		0.0015	0.00049	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Ethylbenzene	<0.0015		0.0015	0.00072	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00044	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Methylene Chloride	<0.0037		0.0037	0.0015	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Styrene	<0.0015		0.0015	0.00045	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Tetrachloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Toluene	<0.0015		0.0015	0.00038	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00066	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00053	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Trichloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Vinyl chloride	<0.0015		0.0015	0.00066	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1
Xylenes, Total	<0.0030		0.0030	0.00048	mg/Kg	☼	02/09/24 17:53	02/14/24 02:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*133*		*70 - 134*	*02/09/24 17:53*	*02/14/24 02:45*	*1*
4-Bromofluorobenzene (Surr)	*101*		*75 - 131*	*02/09/24 17:53*	*02/14/24 02:45*	*1*
Dibromofluoromethane	*123*		*75 - 126*	*02/09/24 17:53*	*02/14/24 02:45*	*1*
Toluene-d8 (Surr)	*103*		*75 - 124*	*02/09/24 17:53*	*02/14/24 02:45*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.028	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
1,2-Dichlorobenzene	<0.19		0.19	0.016	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
1,3-Dichlorobenzene	<0.19		0.19	0.018	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
1,4-Dichlorobenzene	<0.19		0.19	0.018	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.028	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246015-1

Client Sample ID: 2233V3-1-245-2
Date Collected: 02/09/24 13:50
Date Received: 02/09/24 15:21

Lab Sample ID: 500-246015-11
Matrix: Solid
Percent Solids: 83.5

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.015	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
2,4,6-Trichlorophenol	<0.39		0.39	0.013	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
2,4-Dichlorophenol	<0.39		0.39	0.014	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
2,4-Dimethylphenol	<0.39		0.39	0.087	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
2,4-Dinitrophenol	<0.78		0.78	0.22	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
2,4-Dinitrotoluene	<0.19		0.19	0.022	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
2,6-Dinitrotoluene	<0.19		0.19	0.013	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
2-Chloronaphthalene	<0.19		0.19	0.014	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
2-Chlorophenol	<0.19		0.19	0.012	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
2-Methylnaphthalene	<0.078		0.078	0.0078	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
2-Methylphenol	<0.19		0.19	0.020	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
2-Nitroaniline	<0.19		0.19	0.021	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
2-Nitrophenol	<0.39		0.39	0.026	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
3 & 4 Methylphenol	<0.19		0.19	0.028	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.032	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
3-Nitroaniline	<0.39		0.39	0.018	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.22	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.026	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
4-Chloro-3-methylphenol	<0.39		0.39	0.015	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
4-Chloroaniline	<0.78		0.78	0.41	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
4-Nitroaniline	<0.39		0.39	0.029	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
4-Nitrophenol	<0.78		0.78	0.14	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Acenaphthene	<0.039		0.039	0.0079	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Acenaphthylene	<0.039		0.039	0.0066	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Anthracene	<0.039		0.039	0.0079	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Benzo[a]anthracene	**0.0096**	**J**	0.039	0.0082	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Benzo[a]pyrene	<0.039		0.039	0.037	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Benzo[b]fluoranthene	**0.043**		0.039	0.037	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Benzo[g,h,i]perylene	<0.039		0.039	0.0084	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Benzo[k]fluoranthene	<0.039		0.039	0.015	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.014	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.018	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.15	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Butyl benzyl phthalate	<0.19		0.19	0.019	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Carbazole	<0.19		0.19	0.015	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Chrysene	<0.039		0.039	0.010	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Dibenz(a,h)anthracene	<0.039		0.039	0.039	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Dibenzofuran	<0.19		0.19	0.014	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Diethyl phthalate	<0.19		0.19	0.018	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Dimethyl phthalate	<0.19		0.19	0.0084	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Di-n-butyl phthalate	<0.19		0.19	0.012	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Di-n-octyl phthalate	<0.39		0.39	0.27	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Fluoranthene	<0.039		0.039	0.0090	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Fluorene	<0.039		0.039	0.011	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Hexachlorobenzene	<0.078		0.078	0.0074	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Hexachlorobutadiene	<0.19		0.19	0.022	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Hexachlorocyclopentadiene	<0.78		0.78	0.41	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Hexachloroethane	<0.19		0.19	0.019	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246015-1

Client Sample ID: 2233V3-1-245-2
Date Collected: 02/09/24 13:50
Date Received: 02/09/24 15:21

Lab Sample ID: 500-246015-11
Matrix: Solid
Percent Solids: 83.5

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.038	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Isophorone	<0.19		0.19	0.020	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Naphthalene	<0.039		0.039	0.0070	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Nitrobenzene	<0.039		0.039	0.012	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.0076	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
N-Nitrosodiphenylamine	<0.19		0.19	0.023	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Pentachlorophenol	<0.78		0.78	0.097	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Phenanthrene	<0.039		0.039	0.0084	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Phenol	<0.19		0.19	0.017	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1
Pyrene	<0.039		0.039	0.011	mg/Kg	☼	02/15/24 07:50	02/15/24 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*69*		*31 - 143*	*02/15/24 07:50*	*02/15/24 19:56*	*1*
2-Fluorobiphenyl	*59*		*43 - 145*	*02/15/24 07:50*	*02/15/24 19:56*	*1*
2-Fluorophenol	*60*		*31 - 166*	*02/15/24 07:50*	*02/15/24 19:56*	*1*
Nitrobenzene-d5 (Surr)	*55*		*37 - 147*	*02/15/24 07:50*	*02/15/24 19:56*	*1*
Phenol-d5	*59*		*30 - 153*	*02/15/24 07:50*	*02/15/24 19:56*	*1*
Terphenyl-d14 (Surr)	*82*		*42 - 157*	*02/15/24 07:50*	*02/15/24 19:56*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.1		2.1	0.40	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Arsenic	**8.4**		1.0	0.35	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Barium	**49**		1.0	0.12	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Beryllium	**0.80**		0.41	0.096	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Boron	**13**		5.2	0.48	mg/Kg	☼	02/14/24 09:04	02/21/24 05:10	1
Cadmium	**0.18**	**J**	0.21	0.037	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Calcium	**42000**	**B**	21	3.5	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Chromium	**20**		1.0	0.51	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Cobalt	**17**		0.52	0.14	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Copper	**20**		1.0	0.29	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Iron	**23000**		21	11	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Lead	**13**		0.52	0.24	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Magnesium	**21000**		10	5.1	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Manganese	**420**		1.0	0.15	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Nickel	**37**		1.0	0.30	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Potassium	**3400**		52	18	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Selenium	<1.0		1.0	0.61	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Silver	<0.52		0.52	0.13	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Sodium	**810**	**B**	100	15	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Thallium	<1.0		1.0	0.52	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Vanadium	**24**		0.52	0.12	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1
Zinc	**61**		2.1	0.91	mg/Kg	☼	02/14/24 09:04	02/15/24 20:58	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		02/22/24 15:17	02/23/24 16:35	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/22/24 15:17	02/23/24 16:35	1
Chromium	<0.025		0.025	0.010	mg/L		02/22/24 15:17	02/23/24 16:35	1
Iron	**1.7**		0.40	0.20	mg/L		02/22/24 15:17	02/23/24 16:35	1

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246015-1

Client Sample ID: 2233V3-1-245-2
Date Collected: 02/09/24 13:50
Date Received: 02/09/24 15:21

Lab Sample ID: 500-246015-11
Matrix: Solid
Percent Solids: 83.5

Method: SW846 6010D - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		02/22/24 15:17	02/23/24 16:35	1
Manganese	**1.6**		0.025	0.010	mg/L		02/22/24 15:17	02/23/24 16:35	1
Nickel	<0.025		0.025	0.010	mg/L		02/22/24 15:17	02/23/24 16:35	1

Method: SW846 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.055**		0.050	0.010	mg/L		02/23/24 08:27	02/24/24 04:22	1
Barium	**0.32**	**J**	0.50	0.050	mg/L		02/23/24 08:27	02/24/24 04:22	1
Beryllium	**0.0058**		0.0040	0.0040	mg/L		02/23/24 08:27	02/24/24 04:22	1
Boron	**0.19**		0.10	0.050	mg/L		02/23/24 08:27	02/24/24 04:22	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/24 08:27	02/24/24 04:22	1
Calcium	**45**		2.5	0.50	mg/L		02/23/24 08:27	02/24/24 04:22	1
Chromium	**0.13**		0.025	0.010	mg/L		02/23/24 08:27	02/24/24 04:22	1
Cobalt	**0.040**		0.025	0.010	mg/L		02/23/24 08:27	02/24/24 04:22	1
Iron	**140**		0.40	0.20	mg/L		02/23/24 08:27	02/24/24 04:22	1
Lead	**0.064**	**^5-**	0.0075	0.0075	mg/L		02/23/24 08:27	02/24/24 04:22	1
Manganese	**0.55**		0.025	0.010	mg/L		02/23/24 08:27	02/24/24 04:22	1
Nickel	**0.16**		0.025	0.010	mg/L		02/23/24 08:27	02/24/24 04:22	1
Potassium	**37**		2.5	0.50	mg/L		02/23/24 08:27	02/24/24 04:22	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/24 08:27	02/24/24 04:22	1
Silver	<0.025		0.025	0.010	mg/L		02/23/24 08:27	02/24/24 04:22	1
Zinc	**0.37**	**J ^+**	0.50	0.020	mg/L		02/23/24 08:27	02/24/24 04:22	1

Method: SW846 6020B - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/24 08:27	02/26/24 20:19	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/24 08:27	02/27/24 14:00	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/24 10:50	02/26/24 10:29	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.020**		0.018	0.0098	mg/Kg	☼	02/19/24 14:30	02/20/24 11:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.26		0.26	0.13	mg/Kg	☼	02/19/24 14:30	02/21/24 15:10	1
pH (SW846 9045D)	**8.1**	**H**	0.2	0.2	SU			02/19/24 17:07	1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F3	Duplicate RPD exceeds the control limit
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
L	A negative instrument reading had an absolute value greater than the reporting limit

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-246015-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-24

ANDREWS ENGINEERING

CHAIN OF CUSTODY RECORD

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University Park, IL 60484
Phone 708-534-5200
Contact Jodie Bracken
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Project Name AES-021A
Project No PTB/WO#:195-002/21A
TAT [X] 15 BD [ ] 10 BD [ ] 5 BD [ ] 2 BD ____ Other
Sampler: S. Khodaei / M. Furman

COC No 3 of 4
Lab Job No.. 500-246015
Sample Temp 5.7→5.0, 6.2→6.0, 5.8→4.3, 4.8→4.1

Special Instructions:

See Table 2 for complete parameter lists and minimum reporting limits

* If Total RCRA metal (mg/kg) result exceeds the Soil Toxicity Characteristics Limit (Table 3), run TCLP for that specific RCRA metal

** If SPLP result exceeds Class I Standard, run TCLP for that specific parameter

*** If total cyanide exceeds MAC, run ASTM D3987 (Neutral Leach) cyanide

Matrix Key:

W Water
S Soil
SL Sludge
S Sediment
L Leachate
DW Drinking Water
OL Oil
O Other

Lab ID	Sample ID	Sample Date	Sample Time	Matrix	VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization				Comments
	223373-1-B227-2	2/9/24	1200	S	X	X					X	X	X	X	X					
1	223373-1-B226-1	↓	1210	↓	↓	↓					↓	↓	↓	↓	↓					
2	223373-1-B226-2		1220																	
3	223373-1-B225-1		1230																	
4	223373-1-B225-1 DUP		1240																	
5	223373-1-B225-2		1250																	
6	223373-1-B243-1		1300																	
7	223373-1-B243-2		1310																	
8	223373-1-B244-1		1320																	
9	223373-1-B244-2		1330																	
10	223373-1-B245-1	↓	1340	↓	✓	✓					↓	↓	↓	↓	↓					-1 DUP not sampled

Relinquished by	Date/Time 2/9/24 1430	Received by	Date/Time 2/9/24 1432
Relinquished by	Date/Time 2/9/24 1521	Received by	Date/Time 2/9/24 1521
Relinquished by	Date/Time	Received by	Date/Time

ANDREWS ENGINEERING

CHAIN OF CUSTODY RECORD

Client Contact	Laboratory		
Andrews Engineering, Inc 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact Colleen Grey email cgrey@andrews-eng com	Lab	**Eurofins - Chicago**	
	Address	**2417 Bond Street**	
		University Park, IL 60484	
	Phone	**708-534-5200**	
	Contact	**Jodie Bracken**	
	email	Jodie Bracken@ET EurofinsUS com	

Project Name: AE8-021A

Project No: PTB/WO#:195-002/21A

TAT: [X] 15 BD [ ] 10 BD [ ] 5 BD [ ] 2 BD ____ Other

Sampler: S. Khodaei / M. Furman

COC No: 4 of 4

Lab Job No.: 500-246015

Sample Temp:

Special Instructions:

See Table 2 for complete parameter lists and minimum reporting limits

* If Total RCRA metal (mg/kg) result exceeds the Soil Toxicity Characteristics Limit (Table 3), run TCLP for that specific RCRA metal

** If SPLP result exceeds Class I Standard, run TCLP for that specific parameter

*** If total cyanide exceeds MAC, run ASTM D3987 (Neutral Leach) cyanide

Matrix Key:

W Water
S Soil
SL Sludge
S Sediment
L Leachate
DW Drinking Water
OL Oil
O Other

Lab ID	Sample ID	Sample Date	Sample Time	Matrix	VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization				Comments
1	2233V3-1-B245-2	2/9/24	1350	S	X	X					X	X	X	X	X					
2	Trip Blank #3	2/9/24		S	X															

Relinquished by: Ani Kevi	Date/Time: 2/9/24 1430	Received by: S. J. Ellias	Date/Time: 2/9/24 1430
Relinquished by: S. J. Ellias	Date/Time: 2/9/24 1521	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by	Date/Time

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Colleen Grey
Andrews Engineering Inc.
3300 Ginger Creek Drive
Springfield, Illinois 62711

Generated 3/29/2024 7:24:49 PM

JOB DESCRIPTION

IDOT - AE8-021A

JOB NUMBER

500-247569-1

Eurofins Chicago
2417 Bond Street
University Park IL 60484

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

Authorization

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3/29/2024 7:24:49 PM

Authorized for release by
Jodie Bracken, Project Manager I
Jodie.Bracken@ET.EurofinsUS.com
(708)534-5200

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-247569-1

Client Sample ID: 2233V3-1-B247
Date Collected: 03/14/24 10:30
Date Received: 03/15/24 12:18

Lab Sample ID: 500-247569-1
Matrix: Solid
Percent Solids: 80.2

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00068	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
2-Butanone (MEK)	<0.0039		0.0039	0.0018	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Acetone	<0.016		0.016	0.0069	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Carbon disulfide	<0.0039		0.0039	0.00082	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Chlorobenzene	<0.0016		0.0016	0.00058	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Chloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Chloroform	<0.0016		0.0016	0.00055	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Dibromochloromethane	<0.0016		0.0016	0.00052	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Ethylbenzene	<0.0016		0.0016	0.00076	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Methylene Chloride	<0.0039		0.0039	0.0016	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Styrene	<0.0016		0.0016	0.00048	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Tetrachloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00070	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Vinyl chloride	<0.0016		0.0016	0.00070	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1
Xylenes, Total	<0.0032		0.0032	0.00051	mg/Kg	☼	03/15/24 18:00	03/18/24 16:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 134*	*03/15/24 18:00*	*03/18/24 16:51*	*1*
4-Bromofluorobenzene (Surr)	*113*		*75 - 131*	*03/15/24 18:00*	*03/18/24 16:51*	*1*
Dibromofluoromethane	*105*		*75 - 126*	*03/15/24 18:00*	*03/18/24 16:51*	*1*
Toluene-d8 (Surr)	*113*		*75 - 124*	*03/15/24 18:00*	*03/18/24 16:51*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.21		0.21	0.029	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
1,2-Dichlorobenzene	<0.21		0.21	0.017	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
1,3-Dichlorobenzene	<0.21		0.21	0.019	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
1,4-Dichlorobenzene	<0.21		0.21	0.020	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.030	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1

Client Sample ID: 2233V3-1-B247
Date Collected: 03/14/24 10:30
Date Received: 03/15/24 12:18

Lab Sample ID: 500-247569-1
Matrix: Solid
Percent Solids: 80.2

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.41		0.41	0.016	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
2,4,6-Trichlorophenol	<0.41		0.41	0.014	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
2,4-Dichlorophenol	<0.41		0.41	0.015	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
2,4-Dimethylphenol	<0.41		0.41	0.092	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
2,4-Dinitrophenol	<0.83		0.83	0.24	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
2,4-Dinitrotoluene	<0.21		0.21	0.023	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
2,6-Dinitrotoluene	<0.21		0.21	0.014	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
2-Chloronaphthalene	<0.21		0.21	0.015	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
2-Chlorophenol	<0.21		0.21	0.013	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
2-Methylnaphthalene	<0.083		0.083	0.0083	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
2-Methylphenol	<0.21		0.21	0.022	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
2-Nitroaniline	<0.21		0.21	0.022	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
2-Nitrophenol	<0.41		0.41	0.028	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
3 & 4 Methylphenol	<0.21		0.21	0.030	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.034	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
3-Nitroaniline	<0.41		0.41	0.019	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.23	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.028	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
4-Chloro-3-methylphenol	<0.41		0.41	0.016	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
4-Chloroaniline	<0.83		0.83	0.43	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
4-Nitroaniline	<0.41		0.41	0.030	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
4-Nitrophenol	<0.83		0.83	0.15	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Acenaphthene	<0.041		0.041	0.0084	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Acenaphthylene	<0.041		0.041	0.0070	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Anthracene	**0.016**	**J**	0.041	0.0084	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Benzo[a]anthracene	**0.11**		0.041	0.0087	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Benzo[a]pyrene	**0.16**		0.041	0.040	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Benzo[b]fluoranthene	**0.23**		0.041	0.039	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Benzo[g,h,i]perylene	**0.16**		0.041	0.0089	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Benzo[k]fluoranthene	**0.082**		0.041	0.016	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.015	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.019	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.16	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Butyl benzyl phthalate	<0.21		0.21	0.021	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Carbazole	<0.21		0.21	0.016	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Chrysene	**0.17**		0.041	0.011	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Dibenz(a,h)anthracene	<0.041		0.041	0.041	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Dibenzofuran	<0.21		0.21	0.015	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Diethyl phthalate	<0.21		0.21	0.019	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Dimethyl phthalate	<0.21		0.21	0.0090	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Di-n-butyl phthalate	<0.21		0.21	0.013	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Di-n-octyl phthalate	<0.41		0.41	0.29	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Fluoranthene	**0.31**		0.041	0.0096	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Fluorene	<0.041		0.041	0.012	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Hexachlorobenzene	<0.083		0.083	0.0079	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Hexachlorobutadiene	<0.21		0.21	0.023	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Hexachlorocyclopentadiene	<0.83		0.83	0.44	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Hexachloroethane	<0.21		0.21	0.021	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1

Client Sample ID: 2233V3-1-B247
Date Collected: 03/14/24 10:30
Date Received: 03/15/24 12:18

Lab Sample ID: 500-247569-1
Matrix: Solid
Percent Solids: 80.2

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	**0.15**		0.041	0.040	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Isophorone	<0.21		0.21	0.021	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Naphthalene	<0.041		0.041	0.0075	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Nitrobenzene	<0.041		0.041	0.013	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.0081	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
N-Nitrosodiphenylamine	<0.21		0.21	0.024	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Pentachlorophenol	<0.83		0.83	0.10	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Phenanthrene	**0.13**		0.041	0.0090	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Phenol	<0.21		0.21	0.018	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1
Pyrene	**0.25**		0.041	0.011	mg/Kg	☼	03/24/24 16:00	03/25/24 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*66*		*31 - 143*	*03/24/24 16:00*	*03/25/24 17:19*	*1*
2-Fluorobiphenyl	*63*		*43 - 145*	*03/24/24 16:00*	*03/25/24 17:19*	*1*
2-Fluorophenol	*59*		*31 - 166*	*03/24/24 16:00*	*03/25/24 17:19*	*1*
Nitrobenzene-d5 (Surr)	*57*		*37 - 147*	*03/24/24 16:00*	*03/25/24 17:19*	*1*
Phenol-d5	*63*		*30 - 153*	*03/24/24 16:00*	*03/25/24 17:19*	*1*
Terphenyl-d14 (Surr)	*61*		*42 - 157*	*03/24/24 16:00*	*03/25/24 17:19*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.5	F1	2.5	0.48	mg/Kg	☼	03/22/24 09:08	03/28/24 14:35	1
Arsenic	**6.4**		1.2	0.42	mg/Kg	☼	03/22/24 09:08	03/28/24 01:46	1
Barium	**77**	**B**	1.2	0.14	mg/Kg	☼	03/22/24 09:08	03/28/24 14:35	1
Beryllium	**0.75**		0.50	0.12	mg/Kg	☼	03/22/24 09:08	03/28/24 01:46	1
Boron	**6.2**		6.2	0.58	mg/Kg	☼	03/22/24 09:08	03/28/24 01:46	1
Cadmium	**0.20**	**J**	0.25	0.045	mg/Kg	☼	03/22/24 09:08	03/28/24 01:46	1
Calcium	**56000**	**B F2**	25	4.2	mg/Kg	☼	03/22/24 09:08	03/28/24 01:46	1
Chromium	**14**		1.2	0.61	mg/Kg	☼	03/22/24 09:08	03/28/24 01:46	1
Cobalt	**7.3**		0.62	0.16	mg/Kg	☼	03/22/24 09:08	03/28/24 01:46	1
Copper	**15**		1.2	0.35	mg/Kg	☼	03/22/24 09:08	03/28/24 01:46	1
Iron	**16000**	**B**	25	13	mg/Kg	☼	03/22/24 09:08	03/28/24 01:46	1
Lead	**22**		0.62	0.29	mg/Kg	☼	03/22/24 09:08	03/28/24 01:46	1
Magnesium	**34000**	**B F2**	12	6.1	mg/Kg	☼	03/22/24 09:08	03/28/24 01:46	1
Manganese	**460**	**F2**	1.2	0.18	mg/Kg	☼	03/22/24 09:08	03/28/24 01:46	1
Nickel	**17**		1.2	0.36	mg/Kg	☼	03/22/24 09:08	03/28/24 01:46	1
Potassium	**1300**	**F1**	62	22	mg/Kg	☼	03/22/24 09:08	03/28/24 14:35	1
Selenium	<1.2		1.2	0.73	mg/Kg	☼	03/22/24 09:08	03/28/24 01:46	1
Silver	<0.62	F1	0.62	0.16	mg/Kg	☼	03/22/24 09:08	03/28/24 01:46	1
Sodium	**140**		120	18	mg/Kg	☼	03/22/24 09:08	03/28/24 14:35	1
Thallium	<1.2		1.2	0.62	mg/Kg	☼	03/22/24 09:08	03/28/24 01:46	1
Vanadium	**24**		0.62	0.15	mg/Kg	☼	03/22/24 09:08	03/28/24 01:46	1
Zinc	**72**		2.5	1.1	mg/Kg	☼	03/22/24 09:08	03/28/24 01:46	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.89**		0.40	0.20	mg/L		03/22/24 16:10	03/28/24 11:02	1
Lead	<0.0075		0.0075	0.0075	mg/L		03/22/24 16:10	03/26/24 01:09	1
Manganese	**0.42**		0.025	0.010	mg/L		03/22/24 16:10	03/26/24 01:09	1

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-247569-1

Client Sample ID: 2233V3-1-B247

Date Collected: 03/14/24 10:30
Date Received: 03/15/24 12:18

Lab Sample ID: 500-247569-1

Matrix: Solid
Percent Solids: 80.2

Method: SW846 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.017**	**J**	0.050	0.010	mg/L		03/22/24 16:08	03/27/24 12:47	1
Barium	**0.21**	**J**	0.50	0.050	mg/L		03/22/24 16:08	03/27/24 12:47	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		03/22/24 16:08	03/27/24 12:47	1
Boron	**0.072**	**J**	0.10	0.050	mg/L		03/22/24 16:08	03/27/24 12:47	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		03/22/24 16:08	03/27/24 12:47	1
Calcium	**15**		2.5	0.50	mg/L		03/22/24 16:08	03/27/24 12:47	1
Chromium	**0.046**		0.025	0.010	mg/L		03/22/24 16:08	03/27/24 12:47	1
Cobalt	<0.025		0.025	0.010	mg/L		03/22/24 16:08	03/27/24 12:47	1
Iron	**48**		0.40	0.20	mg/L		03/22/24 16:08	03/27/24 12:47	1
Lead	**0.030**	**^5-**	0.0075	0.0075	mg/L		03/22/24 16:08	03/27/24 12:47	1
Manganese	**0.36**		0.025	0.010	mg/L		03/22/24 16:08	03/27/24 12:47	1
Nickel	**0.033**		0.025	0.010	mg/L		03/22/24 16:08	03/27/24 12:47	1
Potassium	**7.9**		2.5	0.50	mg/L		03/22/24 16:08	03/27/24 12:47	1
Selenium	<0.050	^1+	0.050	0.020	mg/L		03/22/24 16:08	03/27/24 12:47	1
Silver	<0.025		0.025	0.010	mg/L		03/22/24 16:08	03/27/24 12:47	1
Zinc	**0.18**	**J**	0.50	0.020	mg/L		03/22/24 16:08	03/27/24 12:47	1

Method: SW846 6020B - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		03/22/24 16:08	03/28/24 17:59	1
Thallium	<0.0020		0.0020	0.0020	mg/L		03/22/24 16:08	03/28/24 17:59	1

Method: SW846 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		03/28/24 11:25	03/29/24 09:25	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.024**		0.020	0.010	mg/Kg	☼	03/27/24 16:30	03/28/24 11:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.26		0.26	0.13	mg/Kg	☼	03/18/24 15:15	03/19/24 09:04	1
pH (SW846 9045D)	**8.2**		0.2	0.2	SU			03/20/24 12:55	1

Definitions/Glossary

Client: Andrews Engineering Inc. Job ID: 500-247569-1
Project/Site: IDOT - AE8-021A

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
F3	Duplicate RPD exceeds the control limit
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Andrews Engineering Inc.
Project/Site: IDOT - AE8-021A

Job ID: 500-247569-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-24

ANDREWS ENGINEERING

CHAIN OF CUSTODY RECORD

500-247569 COC

Client Contact	Laboratory	Project Name: AE8-021A	COC No.: 1 of 1
Andrews Engineering, Inc. 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact: Colleen Grey email: cgrey@andrews-eng.com	Lab: **Eurofins - Chicago** Address: **2417 Bond Street** **University Park, IL 60484** Phone: **708-534-5200** Contact: **Jodie Bracken** email: Jodie.Bracken@ET.EurofinsUS.com	Project No.: ATB/WO#: 195-002 /21A TAT: ☒ 15 BD ☐ 10 BD ☐ 5 BD ☐ 2 BD ___ Other Sampler: J. Weisbrodt	Lab Job No.: 500-247569 Sample Temp: 2.1-1.4 4.8°C

Special Instructions:

See Table 2 for complete parameter lists and minimum reporting limits.

* If Total RCRA metal (mg/kg) result exceeds the Soil Toxicity Characteristics Limit (Table 3), run TCLP for that specific RCRA metal.

** If SPLP result exceeds Class I Standard, run TCLP for that specific parameter.

*** If total cyanide exceeds MAC, run ASTM D3987 (Neutral Leach) cyanide.

Matrix Key:

W: Water
S: Soil
SL: Sludge
S: Sediment
L: Leachate
DW: Drinking Water
OL: Oil
O: Other

ANALYSES

Lab ID	Sample ID	Sample Date	Sample Time	Matrix	VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization				Comments
1	2233v3-1-B247	3/14	10:30	S	X	X					X	X	X	X	X					
2	2233v3-1-B248	3/14	10:50	S	X	X					X	X	X	X	X					

Relinquished by:	Date/Time	Received by:	Date/Time
[signature]	3/15/24 10:30	[signature] EETA	3/15/24 10:30
[signature]	3/15/24 1218	Stephanie Hernandez EETA	3/15/24 1218