



# 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: FAP 348/FAP 29 (IL 43/US 12/20) Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

7100-7200 blocks of West 95th St (Southwest Quadrant of Harlem Avenue / 95th Street Interchange)

City: Bridgeview State: IL Zip Code: 60453

County: Cook Township: Palos

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

Latitude: 41.71815 Longitude: -87.79993  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: 0310275039 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

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

Estimated Volume of debris (cu. Yd.): 13,812

### 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 3903-19-B76, 3903-19-B77, 3903-19-B80 AND 3903-19-B85 WERE SAMPLED ADJACENT TO SITE 3903-19. SEE TABLE 3 AND FIGURE 2 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 NUMBER: 500-233918-1.

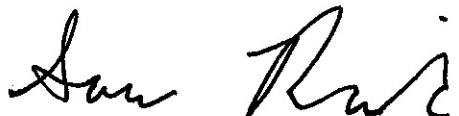
**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

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:

Sep 11, 2023  
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**

<b>Volatile Organic Compounds (mg/kg)</b>
1,1,1-Trichloroethane
1,1,1,2-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
<b>Semivolatile Organic Compounds (mg/kg)</b>
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**

<b>Semivolatile Organic Compounds (mg/kg)</b>
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***

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

ISGS Site 3903-19  
ROW

Sample ID	3903-19-B76-1	3903-19-B76-2	3903-19-B77-1	3903-19-B77-2	3903-19-B77-3	3903-19-B77-4	Maximum Allowable Concentration					
Sample Depth (ft)	0-7	7-14	0-8	8-16	16-24	24-29	<sup>1</sup> Most Stringent	<sup>2</sup> Outside a Populated Area	<sup>3</sup> Within a Populated non-Metropolitan Statistical Area	<sup>4</sup> Within Chicago Corporate Limits	<sup>5</sup> Within a Metropolitan Statistical Area	
Sample Date	5/16/2023	5/16/2023	5/16/2023	5/16/2023	5/16/2023	5/16/2023						
PID	0	0	0	0	0	0						
Sample pH	8.2	7.9	7.3	7.7	8.2	8						
Matrix	Soil	Soil	Soil	Soil	Soil	Soil						
<b>Inorganic Compounds, Total (mg/kg)</b>												
Arsenic	9.4	12	1.3	2.6	8.9	4.1	8.2	11.3	--	11.3	--	13

Sample ID	3903-19-B80-1	3903-19-B80-2	3903-19-B80-3	3903-19-B85-1	3903-19-B85-2	3903-19-B85-3	Maximum Allowable Concentration				
Sample Depth (ft)	0-8	8-16	16-25	0-8	8-16	16-19	<sup>1</sup> Most Stringent	<sup>2</sup> Outside a Populated Area	<sup>3</sup> Within a Populated non-Metropolitan Statistical Area	<sup>4</sup> Within Chicago Corporate Limits	<sup>5</sup> Within a Metropolitan Statistical Area
Sample Date	5/16/2023	5/16/2023	5/16/2023	5/16/2023	5/16/2023	5/16/2023					
PID	0	0	0	0	0	0					
Sample pH	8.5	7.9	8.8	7.8	7.8	8.1					
Matrix	Soil	Soil	Soil	Soil	Soil	Soil					
<b>Inorganic Compounds, Total (mg/kg)</b>											
Arsenic	8.8	11	1.7	10	10	9.2	11.3	--	11.3	--	13

Sample ID	3903-19-B85-3 DUP	Maximum Allowable Concentration				
Sample Depth (ft)	16-19	<sup>1</sup> Most Stringent	<sup>2</sup> Outside a Populated Area	<sup>3</sup> Within a Populated non-Metropolitan Statistical Area	<sup>4</sup> Within Chicago Corporate Limits	<sup>5</sup> Within a Metropolitan Statistical Area
Sample Date	5/16/2023					
PID	0					
Sample pH	8.2					
Matrix	Soil					
<b>Inorganic Compounds, Total (mg/kg)</b>						
Arsenic	9.1	11.3	--	11.3	--	13

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# ANALYTICAL REPORT

## PREPARED FOR

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

Generated 6/12/2023 8:08:53 AM

## JOB DESCRIPTION

IDOT - AE8-011

## JOB NUMBER

500-233918-1



# Eurofins Chicago

## 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](mailto:Jodie.Bracken@et.eurofinsus.com)  
(708)534-5200

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B77-1**

**Lab Sample ID: 500-233918-1**

**Date Collected: 05/16/23 09:00**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**Percent Solids: 92.6**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
1,1,1,2-Tetrachloroethane	<0.0017	*3	0.0017	0.00054	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0013	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Acetone	<0.017		0.017	0.0074	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Carbon disulfide	<0.0042		0.0042	0.00088	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Chloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	05/17/23 18:00	05/23/23 17:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 134	05/17/23 18:00	05/23/23 17:21	1
4-Bromofluorobenzene (Surr)	125	*3	75 - 131	05/17/23 18:00	05/23/23 17:21	1
Dibromofluoromethane	103		75 - 126	05/17/23 18:00	05/23/23 17:21	1
Toluene-d8 (Surr)	98		75 - 124	05/17/23 18:00	05/23/23 17:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.18		0.18	0.026	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
1,2-Dichlorobenzene	<0.18		0.18	0.015	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
1,3-Dichlorobenzene	<0.18		0.18	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
1,4-Dichlorobenzene	<0.18		0.18	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.026	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B77-1**

**Lab Sample ID: 500-233918-1**

**Date Collected: 05/16/23 09:00**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**Percent Solids: 92.6**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.36		0.36	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
2,4,6-Trichlorophenol	<0.36		0.36	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
2,4-Dichlorophenol	<0.36		0.36	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
2,4-Dimethylphenol	<0.36		0.36	0.080	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
2,4-Dinitrophenol	<0.72		0.72	0.21	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
2,4-Dinitrotoluene	<0.18		0.18	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
2,6-Dinitrotoluene	<0.18		0.18	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
2-Chloronaphthalene	<0.18		0.18	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
2-Chlorophenol	<0.18		0.18	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
2-Methylnaphthalene	<0.072		0.072	0.0072	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
2-Methylphenol	<0.18		0.18	0.019	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
2-Nitroaniline	<0.18		0.18	0.019	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
2-Nitrophenol	<0.36		0.36	0.024	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
3 & 4 Methylphenol	<0.18		0.18	0.026	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.029	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
3-Nitroaniline	<0.36		0.36	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
4,6-Dinitro-2-methylphenol	<0.72		0.72	0.20	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.024	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
4-Chloro-3-methylphenol	<0.36		0.36	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
4-Chloroaniline	<0.72		0.72	0.37	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
4-Nitroaniline	<0.36		0.36	0.026	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
4-Nitrophenol	<0.72		0.72	0.13	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Acenaphthene	<0.036		0.036	0.0073	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Acenaphthylene	<0.036		0.036	0.0061	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Anthracene	<0.036		0.036	0.0073	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Benzo[a]anthracene	<0.036		0.036	0.0076	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Benzo[a]pyrene	<0.036		0.036	0.034	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Benzo[b]fluoranthene	<0.036		0.036	0.034	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
<b>Benzo[g,h,i]perylene</b>	<b>0.020</b>	<b>J</b>	0.036	0.0077	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Benzo[k]fluoranthene	<0.036		0.036	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.14	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Butyl benzyl phthalate	<0.18		0.18	0.018	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Carbazole	<0.18		0.18	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
<b>Chrysene</b>	<b>0.022</b>	<b>J</b>	0.036	0.0094	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Dibenz(a,h)anthracene	<0.036		0.036	0.036	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Dibenzofuran	<0.18		0.18	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Diethyl phthalate	<0.18		0.18	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Dimethyl phthalate	<0.18		0.18	0.0078	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Di-n-butyl phthalate	<0.18		0.18	0.011	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Di-n-octyl phthalate	<0.36		0.36	0.25	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
<b>Fluoranthene</b>	<b>0.024</b>	<b>J</b>	0.036	0.0083	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Fluorene	<0.036		0.036	0.011	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Hexachlorobenzene	<0.072		0.072	0.0068	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Hexachlorobutadiene	<0.18		0.18	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Hexachlorocyclopentadiene	<0.72		0.72	0.38	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1
Hexachloroethane	<0.18		0.18	0.018	mg/Kg	☼	05/25/23 10:24	06/04/23 14:20	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B77-1**

**Lab Sample ID: 500-233918-1**

Date Collected: 05/16/23 09:00

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 92.6

**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	<0.036		0.036	0.035	mg/Kg	✳	05/25/23 10:24	06/04/23 14:20	1
Isophorone	<0.18		0.18	0.018	mg/Kg	✳	05/25/23 10:24	06/04/23 14:20	1
Naphthalene	<0.036		0.036	0.0065	mg/Kg	✳	05/25/23 10:24	06/04/23 14:20	1
Nitrobenzene	<0.036		0.036	0.011	mg/Kg	✳	05/25/23 10:24	06/04/23 14:20	1
N-Nitrosodi-n-propylamine	<0.072		0.072	0.0070	mg/Kg	✳	05/25/23 10:24	06/04/23 14:20	1
N-Nitrosodiphenylamine	<0.18		0.18	0.021	mg/Kg	✳	05/25/23 10:24	06/04/23 14:20	1
Pentachlorophenol	<0.72		0.72	0.089	mg/Kg	✳	05/25/23 10:24	06/04/23 14:20	1
<b>Phenanthrene</b>	<b>0.022</b>	<b>J</b>	0.036	0.0078	mg/Kg	✳	05/25/23 10:24	06/04/23 14:20	1
Phenol	<0.18		0.18	0.015	mg/Kg	✳	05/25/23 10:24	06/04/23 14:20	1
<b>Pyrene</b>	<b>0.022</b>	<b>J</b>	0.036	0.0098	mg/Kg	✳	05/25/23 10:24	06/04/23 14:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	70		31 - 166	05/25/23 10:24	06/04/23 14:20	1
Phenol-d5	73		30 - 153	05/25/23 10:24	06/04/23 14:20	1
Nitrobenzene-d5 (Surr)	73		37 - 147	05/25/23 10:24	06/04/23 14:20	1
2-Fluorobiphenyl	79		43 - 145	05/25/23 10:24	06/04/23 14:20	1
2,4,6-Tribromophenol	79		31 - 143	05/25/23 10:24	06/04/23 14:20	1
Terphenyl-d14 (Surr)	83		42 - 157	05/25/23 10:24	06/04/23 14:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.20</b>	<b>J F1</b>	1.0	0.20	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
<b>Arsenic</b>	<b>2.6</b>	<b>F1 F2</b>	0.52	0.18	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
<b>Barium</b>	<b>19</b>	<b>F1 F2</b>	0.52	0.059	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
<b>Beryllium</b>	<b>0.30</b>	<b>F1</b>	0.21	0.049	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
<b>Boron</b>	<b>3.9</b>	<b>F1 F2</b>	2.6	0.24	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
<b>Cadmium</b>	<b>0.15</b>	<b>B F1</b>	0.10	0.019	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
<b>Calcium</b>	<b>39000</b>	<b>B</b>	52	8.8	mg/Kg	✳	05/22/23 16:19	05/31/23 19:10	5
<b>Chromium</b>	<b>6.0</b>	<b>F1</b>	0.52	0.26	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
<b>Cobalt</b>	<b>3.8</b>	<b>F1</b>	0.26	0.068	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
<b>Copper</b>	<b>11</b>	<b>F1</b>	0.52	0.15	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
<b>Iron</b>	<b>8400</b>	<b>B</b>	10	5.4	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
<b>Lead</b>	<b>24</b>		0.26	0.12	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
<b>Magnesium</b>	<b>24000</b>	<b>B</b>	5.2	2.6	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
<b>Manganese</b>	<b>300</b>	<b>B</b>	0.52	0.076	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
<b>Nickel</b>	<b>9.9</b>	<b>F1</b>	0.52	0.15	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
<b>Potassium</b>	<b>670</b>	<b>F1</b>	26	9.2	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
Selenium	<0.52	F1	0.52	0.31	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
Silver	<0.26	F1	0.26	0.067	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
<b>Sodium</b>	<b>180</b>	<b>F1 F2</b>	52	7.7	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
Thallium	<0.52	F1	0.52	0.26	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
<b>Vanadium</b>	<b>11</b>	<b>F1</b>	0.26	0.062	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1
<b>Zinc</b>	<b>59</b>	<b>F1 F2</b>	1.0	0.46	mg/Kg	✳	05/22/23 16:19	05/31/23 00:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Iron</b>	<b>0.34</b>	<b>J</b>	0.40	0.20	mg/L		05/25/23 17:13	05/31/23 22:09	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/25/23 17:13	05/31/23 22:09	1
<b>Manganese</b>	<b>5.3</b>		0.025	0.010	mg/L		05/25/23 17:13	05/31/23 22:09	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B77-1**

**Lab Sample ID: 500-233918-1**

Date Collected: 05/16/23 09:00

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 92.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.012</b>	<b>J</b>	0.050	0.010	mg/L		05/25/23 17:13	06/02/23 00:03	1
<b>Barium</b>	<b>0.092</b>	<b>J</b>	0.50	0.050	mg/L		05/25/23 17:13	06/02/23 00:03	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/25/23 17:13	06/02/23 00:03	1
<b>Boron</b>	<b>0.066</b>	<b>J</b>	0.10	0.050	mg/L		05/25/23 17:13	06/02/23 00:03	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/25/23 17:13	06/02/23 00:03	1
<b>Calcium</b>	<b>18</b>		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 00:03	1
<b>Chromium</b>	<b>0.026</b>		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:03	1
Cobalt	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:03	1
<b>Iron</b>	<b>25</b>		0.40	0.20	mg/L		05/25/23 17:13	06/02/23 00:03	1
<b>Lead</b>	<b>0.014</b>		0.0075	0.0075	mg/L		05/25/23 17:13	06/02/23 00:03	1
<b>Manganese</b>	<b>0.23</b>		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:03	1
<b>Nickel</b>	<b>0.025</b>		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:03	1
<b>Potassium</b>	<b>6.8</b>		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 00:03	1
Selenium	<0.050		0.050	0.020	mg/L		05/25/23 17:13	06/02/23 00:03	1
Silver	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:03	1
<b>Zinc</b>	<b>0.070</b>	<b>J</b>	0.50	0.020	mg/L		05/25/23 17:13	06/02/23 00:03	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		05/25/23 17:13	06/01/23 21:47	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/25/23 17:13	06/01/23 21:47	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		05/30/23 10:40	05/31/23 10:12	1

**Method: SW846 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.013</b>	<b>J</b>	0.017	0.0091	mg/Kg	⊛	05/30/23 14:40	05/31/23 07:00	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	⊛	05/24/23 08:20	05/24/23 10:11	1
<b>pH (SW846 9045D)</b>	<b>7.3</b>		0.2	0.2	SU			05/23/23 18:25	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B77-2**

**Lab Sample ID: 500-233918-2**

Date Collected: 05/16/23 09:10

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 87.5

**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	☼	05/17/23 18:00	05/23/23 17:47	1
1,1,1,2-Tetrachloroethane	<0.0018	*3	0.0018	0.00057	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Acetone	<0.018		0.018	0.0077	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Carbon disulfide	<0.0044		0.0044	0.00092	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	05/17/23 18:00	05/23/23 17:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 134	05/17/23 18:00	05/23/23 17:47	1
4-Bromofluorobenzene (Surr)	134	*3 S1+	75 - 131	05/17/23 18:00	05/23/23 17:47	1
Dibromofluoromethane	104		75 - 126	05/17/23 18:00	05/23/23 17:47	1
Toluene-d8 (Surr)	104		75 - 124	05/17/23 18:00	05/23/23 17:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.027	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
1,2-Dichlorobenzene	<0.19		0.19	0.015	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
1,3-Dichlorobenzene	<0.19		0.19	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
1,4-Dichlorobenzene	<0.19		0.19	0.018	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.027	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B77-2**

**Lab Sample ID: 500-233918-2**

**Date Collected: 05/16/23 09:10**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**Percent Solids: 87.5**

**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	☼	05/25/23 10:24	06/04/23 14:45	1
2,4,6-Trichlorophenol	<0.37		0.37	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
2,4-Dichlorophenol	<0.37		0.37	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
2,4-Dimethylphenol	<0.37		0.37	0.083	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
2,4-Dinitrophenol	<0.75		0.75	0.22	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
2,4-Dinitrotoluene	<0.19		0.19	0.021	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
2,6-Dinitrotoluene	<0.19		0.19	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
2-Chloronaphthalene	<0.19		0.19	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
2-Chlorophenol	<0.19		0.19	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
<b>2-Methylnaphthalene</b>	<b>0.015</b>	<b>J</b>	0.075	0.0075	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
2-Methylphenol	<0.19		0.19	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
2-Nitroaniline	<0.19		0.19	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
2-Nitrophenol	<0.37		0.37	0.025	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
3 & 4 Methylphenol	<0.19		0.19	0.027	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.030	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
3-Nitroaniline	<0.37		0.37	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.21	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.025	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
4-Chloro-3-methylphenol	<0.37		0.37	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
4-Chloroaniline	<0.75		0.75	0.39	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
4-Nitroaniline	<0.37		0.37	0.028	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
4-Nitrophenol	<0.75		0.75	0.14	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Acenaphthene	<0.037		0.037	0.0076	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Acenaphthylene	<0.037		0.037	0.0063	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Anthracene	<0.037		0.037	0.0076	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Benzo[a]anthracene	<0.037		0.037	0.0079	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Benzo[a]pyrene	<0.037		0.037	0.036	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Benzo[b]fluoranthene	<0.037		0.037	0.035	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Benzo[g,h,i]perylene	<0.037		0.037	0.0081	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Benzo[k]fluoranthene	<0.037		0.037	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.15	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Butyl benzyl phthalate	<0.19		0.19	0.019	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Carbazole	<0.19		0.19	0.015	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Chrysene	<0.037		0.037	0.0098	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Dibenz(a,h)anthracene	<0.037		0.037	0.037	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Dibenzofuran	<0.19		0.19	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Diethyl phthalate	<0.19		0.19	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Dimethyl phthalate	<0.19		0.19	0.0081	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Di-n-butyl phthalate	<0.19		0.19	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Di-n-octyl phthalate	<0.37		0.37	0.26	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
<b>Fluoranthene</b>	<b>0.017</b>	<b>J</b>	0.037	0.0087	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Fluorene	<0.037		0.037	0.011	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Hexachlorobenzene	<0.075		0.075	0.0071	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Hexachlorobutadiene	<0.19		0.19	0.021	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Hexachlorocyclopentadiene	<0.75		0.75	0.40	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1
Hexachloroethane	<0.19		0.19	0.019	mg/Kg	☼	05/25/23 10:24	06/04/23 14:45	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B77-2**

**Lab Sample ID: 500-233918-2**

Date Collected: 05/16/23 09:10

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 87.5

**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	✳	05/25/23 10:24	06/04/23 14:45	1
Isophorone	<0.19		0.19	0.019	mg/Kg	✳	05/25/23 10:24	06/04/23 14:45	1
<b>Naphthalene</b>	<b>0.0094</b>	<b>J</b>	0.037	0.0067	mg/Kg	✳	05/25/23 10:24	06/04/23 14:45	1
Nitrobenzene	<0.037		0.037	0.012	mg/Kg	✳	05/25/23 10:24	06/04/23 14:45	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.0074	mg/Kg	✳	05/25/23 10:24	06/04/23 14:45	1
N-Nitrosodiphenylamine	<0.19		0.19	0.022	mg/Kg	✳	05/25/23 10:24	06/04/23 14:45	1
Pentachlorophenol	<0.75		0.75	0.093	mg/Kg	✳	05/25/23 10:24	06/04/23 14:45	1
<b>Phenanthrene</b>	<b>0.023</b>	<b>J</b>	0.037	0.0081	mg/Kg	✳	05/25/23 10:24	06/04/23 14:45	1
Phenol	<0.19		0.19	0.016	mg/Kg	✳	05/25/23 10:24	06/04/23 14:45	1
<b>Pyrene</b>	<b>0.016</b>	<b>J</b>	0.037	0.010	mg/Kg	✳	05/25/23 10:24	06/04/23 14:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	72		31 - 166				05/25/23 10:24	06/04/23 14:45	1
Phenol-d5	73		30 - 153				05/25/23 10:24	06/04/23 14:45	1
Nitrobenzene-d5 (Surr)	73		37 - 147				05/25/23 10:24	06/04/23 14:45	1
2-Fluorobiphenyl	76		43 - 145				05/25/23 10:24	06/04/23 14:45	1
2,4,6-Tribromophenol	74		31 - 143				05/25/23 10:24	06/04/23 14:45	1
Terphenyl-d14 (Surr)	83		42 - 157				05/25/23 10:24	06/04/23 14:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.46</b>	<b>J</b>	1.1	0.22	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
<b>Arsenic</b>	<b>8.9</b>		0.57	0.19	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
<b>Barium</b>	<b>29</b>		0.57	0.065	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
<b>Beryllium</b>	<b>0.62</b>		0.23	0.053	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
<b>Boron</b>	<b>7.4</b>		2.8	0.26	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
<b>Cadmium</b>	<b>0.18</b>	<b>B</b>	0.11	0.020	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
<b>Calcium</b>	<b>55000</b>	<b>B</b>	57	9.6	mg/Kg	✳	05/23/23 15:04	05/31/23 18:13	5
<b>Chromium</b>	<b>9.7</b>		0.57	0.28	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
<b>Cobalt</b>	<b>9.7</b>		0.28	0.074	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
<b>Copper</b>	<b>23</b>		0.57	0.16	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
<b>Iron</b>	<b>17000</b>	<b>B</b>	11	5.9	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
<b>Lead</b>	<b>16</b>		0.28	0.13	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
<b>Magnesium</b>	<b>27000</b>	<b>B</b>	5.7	2.8	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
<b>Manganese</b>	<b>340</b>		0.57	0.082	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
<b>Nickel</b>	<b>23</b>		0.57	0.16	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
<b>Potassium</b>	<b>1300</b>		28	10	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
<b>Selenium</b>	<b>0.59</b>		0.57	0.33	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
<b>Silver</b>	<b>0.23</b>	<b>J</b>	0.28	0.073	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
<b>Sodium</b>	<b>190</b>		57	8.4	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
Thallium	<0.57		0.57	0.28	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
<b>Vanadium</b>	<b>15</b>		0.28	0.067	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1
<b>Zinc</b>	<b>63</b>		1.1	0.50	mg/Kg	✳	05/23/23 15:04	05/30/23 15:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		05/25/23 17:13	06/02/23 00:07	1
Barium	<0.50		0.50	0.050	mg/L		05/25/23 17:13	06/02/23 00:07	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/25/23 17:13	06/02/23 00:07	1
<b>Boron</b>	<b>0.063</b>	<b>J</b>	0.10	0.050	mg/L		05/25/23 17:13	06/02/23 00:07	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B77-2**

**Lab Sample ID: 500-233918-2**

Date Collected: 05/16/23 09:10

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 87.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/25/23 17:13	06/02/23 00:07	1
<b>Calcium</b>	<b>20</b>		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 00:07	1
Chromium	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:07	1
Cobalt	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:07	1
<b>Iron</b>	<b>2.9</b>		0.40	0.20	mg/L		05/25/23 17:13	06/02/23 00:07	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/25/23 17:13	06/02/23 00:07	1
<b>Manganese</b>	<b>0.075</b>		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:07	1
Nickel	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:07	1
<b>Potassium</b>	<b>2.1 J</b>		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 00:07	1
Selenium	<0.050		0.050	0.020	mg/L		05/25/23 17:13	06/02/23 00:07	1
Silver	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:07	1
Zinc	<0.50		0.50	0.020	mg/L		05/25/23 17:13	06/02/23 00:07	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		05/25/23 17:13	06/01/23 21:49	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/25/23 17:13	06/01/23 21:49	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		05/30/23 10:40	05/31/23 10:14	1

**Method: SW846 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.018</b>		0.018	0.0096	mg/Kg	⊛	05/30/23 14:40	05/31/23 07:02	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	⊛	05/24/23 08:21	05/24/23 10:12	1
<b>pH (SW846 9045D)</b>	<b>7.7</b>		0.2	0.2	SU			05/23/23 18:27	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B77-3**

**Lab Sample ID: 500-233918-3**

Date Collected: 05/16/23 09:20

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 88.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0017		0.0017	0.00058	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00061	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Acetone	<0.017		0.017	0.0075	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Vinyl chloride	<0.0017		0.0017	0.00077	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1
Xylenes, Total	<0.0035		0.0035	0.00055	mg/Kg	✱	05/17/23 18:00	05/23/23 18:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 134	05/17/23 18:00	05/23/23 18:12	1
4-Bromofluorobenzene (Surr)	114		75 - 131	05/17/23 18:00	05/23/23 18:12	1
Dibromofluoromethane	103		75 - 126	05/17/23 18:00	05/23/23 18:12	1
Toluene-d8 (Surr)	96		75 - 124	05/17/23 18:00	05/23/23 18:12	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	✱	05/25/23 10:24	06/04/23 15:10	1
1,2-Dichlorobenzene	<0.19		0.19	0.015	mg/Kg	✱	05/25/23 10:24	06/04/23 15:10	1
1,3-Dichlorobenzene	<0.19		0.19	0.017	mg/Kg	✱	05/25/23 10:24	06/04/23 15:10	1
1,4-Dichlorobenzene	<0.19		0.19	0.018	mg/Kg	✱	05/25/23 10:24	06/04/23 15:10	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.027	mg/Kg	✱	05/25/23 10:24	06/04/23 15:10	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B77-3**

**Lab Sample ID: 500-233918-3**

**Date Collected: 05/16/23 09:20**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**Percent Solids: 88.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.37		0.37	0.014	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
2,4,6-Trichlorophenol	<0.37		0.37	0.013	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
2,4-Dichlorophenol	<0.37		0.37	0.013	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
2,4-Dimethylphenol	<0.37		0.37	0.083	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
2,4-Dinitrophenol	<0.75		0.75	0.22	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
2,4-Dinitrotoluene	<0.19		0.19	0.021	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
2,6-Dinitrotoluene	<0.19		0.19	0.013	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
2-Chloronaphthalene	<0.19		0.19	0.014	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
2-Chlorophenol	<0.19		0.19	0.012	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
2-Methylnaphthalene	<0.075		0.075	0.0075	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
2-Methylphenol	<0.19		0.19	0.020	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
2-Nitroaniline	<0.19		0.19	0.020	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
2-Nitrophenol	<0.37		0.37	0.025	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
3 & 4 Methylphenol	<0.19		0.19	0.027	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.030	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
3-Nitroaniline	<0.37		0.37	0.017	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.21	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.025	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
4-Chloro-3-methylphenol	<0.37		0.37	0.014	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
4-Chloroaniline	<0.75		0.75	0.39	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
4-Nitroaniline	<0.37		0.37	0.027	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
4-Nitrophenol	<0.75		0.75	0.14	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Acenaphthene	<0.037		0.037	0.0076	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Acenaphthylene	<0.037		0.037	0.0063	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Anthracene	<0.037		0.037	0.0076	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Benzo[a]anthracene	<0.037		0.037	0.0079	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Benzo[a]pyrene	<0.037		0.037	0.036	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Benzo[b]fluoranthene	<0.037		0.037	0.035	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Benzo[g,h,i]perylene	<0.037		0.037	0.0081	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Benzo[k]fluoranthene	<0.037		0.037	0.014	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.014	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.017	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.15	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Butyl benzyl phthalate	<0.19		0.19	0.018	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Carbazole	<0.19		0.19	0.015	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Chrysene	<0.037		0.037	0.0098	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Dibenz(a,h)anthracene	<0.037		0.037	0.037	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Dibenzofuran	<0.19		0.19	0.013	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Diethyl phthalate	<0.19		0.19	0.017	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Dimethyl phthalate	<0.19		0.19	0.0081	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Di-n-butyl phthalate	<0.19		0.19	0.012	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Di-n-octyl phthalate	<0.37		0.37	0.26	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Fluoranthene	<0.037		0.037	0.0086	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Fluorene	<0.037		0.037	0.011	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Hexachlorobenzene	<0.075		0.075	0.0071	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Hexachlorobutadiene	<0.19		0.19	0.021	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Hexachlorocyclopentadiene	<0.75		0.75	0.39	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Hexachloroethane	<0.19		0.19	0.019	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B77-3**

**Lab Sample ID: 500-233918-3**

Date Collected: 05/16/23 09:20

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 88.8

**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	<0.037		0.037	0.036	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Isophorone	<0.19		0.19	0.019	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Naphthalene	<0.037		0.037	0.0067	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Nitrobenzene	<0.037		0.037	0.012	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.0073	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
N-Nitrosodiphenylamine	<0.19		0.19	0.022	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Pentachlorophenol	<0.75		0.75	0.093	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Phenanthrene	<0.037		0.037	0.0081	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Phenol	<0.19		0.19	0.016	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Pyrene	<0.037		0.037	0.010	mg/Kg	✳	05/25/23 10:24	06/04/23 15:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	71		31 - 166				05/25/23 10:24	06/04/23 15:10	1
Phenol-d5	71		30 - 153				05/25/23 10:24	06/04/23 15:10	1
Nitrobenzene-d5 (Surr)	72		37 - 147				05/25/23 10:24	06/04/23 15:10	1
2-Fluorobiphenyl	77		43 - 145				05/25/23 10:24	06/04/23 15:10	1
2,4,6-Tribromophenol	76		31 - 143				05/25/23 10:24	06/04/23 15:10	1
Terphenyl-d14 (Surr)	85		42 - 157				05/25/23 10:24	06/04/23 15:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
<b>Arsenic</b>	<b>4.1</b>		0.55	0.19	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
<b>Barium</b>	<b>21</b>		0.55	0.062	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
<b>Beryllium</b>	<b>0.38</b>		0.22	0.051	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
<b>Boron</b>	<b>6.5</b>		2.7	0.25	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
<b>Cadmium</b>	<b>0.11</b>	<b>B</b>	0.11	0.020	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
<b>Calcium</b>	<b>69000</b>	<b>B</b>	55	9.3	mg/Kg	✳	05/23/23 15:04	05/31/23 18:16	5
<b>Chromium</b>	<b>6.6</b>		0.55	0.27	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
<b>Cobalt</b>	<b>4.5</b>		0.27	0.072	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
<b>Copper</b>	<b>14</b>		0.55	0.15	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
<b>Iron</b>	<b>10000</b>	<b>B</b>	11	5.7	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
<b>Lead</b>	<b>6.2</b>		0.27	0.13	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
<b>Magnesium</b>	<b>28000</b>	<b>B</b>	5.5	2.7	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
<b>Manganese</b>	<b>280</b>		0.55	0.079	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
<b>Nickel</b>	<b>12</b>		0.55	0.16	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
<b>Potassium</b>	<b>1000</b>		27	9.7	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
<b>Selenium</b>	<b>0.33</b>	<b>J</b>	0.55	0.32	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
<b>Silver</b>	<b>0.13</b>	<b>J</b>	0.27	0.070	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
<b>Sodium</b>	<b>220</b>		55	8.1	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
Thallium	<0.55		0.55	0.27	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
<b>Vanadium</b>	<b>10</b>		0.27	0.064	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1
<b>Zinc</b>	<b>47</b>		1.1	0.48	mg/Kg	✳	05/23/23 15:04	05/30/23 15:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		05/25/23 17:13	06/02/23 00:17	1
<b>Barium</b>	<b>0.052</b>	<b>J</b>	0.50	0.050	mg/L		05/25/23 17:13	06/02/23 00:17	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/25/23 17:13	06/02/23 00:17	1
<b>Boron</b>	<b>0.054</b>	<b>J</b>	0.10	0.050	mg/L		05/25/23 17:13	06/02/23 00:17	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B77-3**

**Lab Sample ID: 500-233918-3**

Date Collected: 05/16/23 09:20

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 88.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/25/23 17:13	06/02/23 00:17	1
<b>Calcium</b>	<b>17</b>		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 00:17	1
Chromium	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:17	1
Cobalt	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:17	1
<b>Iron</b>	<b>3.9</b>		0.40	0.20	mg/L		05/25/23 17:13	06/02/23 00:17	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/25/23 17:13	06/02/23 00:17	1
<b>Manganese</b>	<b>0.046</b>		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:17	1
Nickel	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:17	1
<b>Potassium</b>	<b>3.5</b>		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 00:17	1
Selenium	<0.050		0.050	0.020	mg/L		05/25/23 17:13	06/02/23 00:17	1
Silver	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:17	1
Zinc	<0.50		0.50	0.020	mg/L		05/25/23 17:13	06/02/23 00:17	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		05/25/23 17:13	06/01/23 21:51	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/25/23 17:13	06/01/23 21:51	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		05/30/23 10:40	05/31/23 10:16	1

**Method: SW846 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.016		0.016	0.0087	mg/Kg	⊛	05/30/23 14:40	05/31/23 07:04	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	⊛	05/24/23 08:22	05/24/23 10:14	1
<b>pH (SW846 9045D)</b>	<b>8.2</b>		0.2	0.2	SU			05/23/23 18:30	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B77-4**

**Lab Sample ID: 500-233918-4**

**Date Collected: 05/16/23 09:30**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**Percent Solids: 87.1**

**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	☼	05/17/23 18:00	05/23/23 18:38	1
1,1,1,2-Tetrachloroethane	<0.0017	*3	0.0017	0.00055	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Acetone	<0.017		0.017	0.0074	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	05/17/23 18:00	05/23/23 18:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 134	05/17/23 18:00	05/23/23 18:38	1
4-Bromofluorobenzene (Surr)	168	*3 S1+	75 - 131	05/17/23 18:00	05/23/23 18:38	1
Dibromofluoromethane	106		75 - 126	05/17/23 18:00	05/23/23 18:38	1
Toluene-d8 (Surr)	125	S1+	75 - 124	05/17/23 18:00	05/23/23 18:38	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	☼	05/25/23 10:24	06/04/23 15:35	1
1,2-Dichlorobenzene	<0.19		0.19	0.015	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
1,3-Dichlorobenzene	<0.19		0.19	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
1,4-Dichlorobenzene	<0.19		0.19	0.018	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.027	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B77-4**

**Lab Sample ID: 500-233918-4**

**Date Collected: 05/16/23 09:30**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**Percent Solids: 87.1**

**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	☼	05/25/23 10:24	06/04/23 15:35	1
2,4,6-Trichlorophenol	<0.38		0.38	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
2,4-Dichlorophenol	<0.38		0.38	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
2,4-Dimethylphenol	<0.38		0.38	0.085	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
2,4-Dinitrophenol	<0.77		0.77	0.22	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
2,4-Dinitrotoluene	<0.19		0.19	0.022	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
2,6-Dinitrotoluene	<0.19		0.19	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
2-Chloronaphthalene	<0.19		0.19	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
2-Chlorophenol	<0.19		0.19	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
2-Methylnaphthalene	<0.077		0.077	0.0076	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
2-Methylphenol	<0.19		0.19	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
2-Nitroaniline	<0.19		0.19	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
2-Nitrophenol	<0.38		0.38	0.026	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
3 & 4 Methylphenol	<0.19		0.19	0.028	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.031	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
3-Nitroaniline	<0.38		0.38	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.21	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.026	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
4-Chloro-3-methylphenol	<0.38		0.38	0.015	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
4-Chloroaniline	<0.77		0.77	0.40	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
4-Nitroaniline	<0.38		0.38	0.028	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
4-Nitrophenol	<0.77		0.77	0.14	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Acenaphthene	<0.038		0.038	0.0077	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Acenaphthylene	<0.038		0.038	0.0064	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Anthracene	<0.038		0.038	0.0077	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Benzo[a]anthracene	<0.038		0.038	0.0080	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Benzo[a]pyrene	<0.038		0.038	0.037	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Benzo[b]fluoranthene	<0.038		0.038	0.036	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Benzo[g,h,i]perylene	<0.038		0.038	0.0082	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Benzo[k]fluoranthene	<0.038		0.038	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.15	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Butyl benzyl phthalate	<0.19		0.19	0.019	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Carbazole	<0.19		0.19	0.015	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Dibenz(a,h)anthracene	<0.038		0.038	0.038	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Dibenzofuran	<0.19		0.19	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Diethyl phthalate	<0.19		0.19	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Dimethyl phthalate	<0.19		0.19	0.0082	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Di-n-butyl phthalate	<0.19		0.19	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Di-n-octyl phthalate	<0.38		0.38	0.26	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Fluoranthene	<0.038		0.038	0.0088	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Fluorene	<0.038		0.038	0.011	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Hexachlorobenzene	<0.077		0.077	0.0073	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Hexachlorobutadiene	<0.19		0.19	0.021	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Hexachlorocyclopentadiene	<0.77		0.77	0.40	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1
Hexachloroethane	<0.19		0.19	0.019	mg/Kg	☼	05/25/23 10:24	06/04/23 15:35	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B77-4**

**Lab Sample ID: 500-233918-4**

**Date Collected: 05/16/23 09:30**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**Percent Solids: 87.1**

**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	✳	05/25/23 10:24	06/04/23 15:35	1
Isophorone	<0.19		0.19	0.020	mg/Kg	✳	05/25/23 10:24	06/04/23 15:35	1
Naphthalene	<0.038		0.038	0.0069	mg/Kg	✳	05/25/23 10:24	06/04/23 15:35	1
Nitrobenzene	<0.038		0.038	0.012	mg/Kg	✳	05/25/23 10:24	06/04/23 15:35	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.0075	mg/Kg	✳	05/25/23 10:24	06/04/23 15:35	1
N-Nitrosodiphenylamine	<0.19		0.19	0.022	mg/Kg	✳	05/25/23 10:24	06/04/23 15:35	1
Pentachlorophenol	<0.77		0.77	0.095	mg/Kg	✳	05/25/23 10:24	06/04/23 15:35	1
<b>Phenanthrene</b>	<b>0.012</b>	<b>J</b>	0.038	0.0082	mg/Kg	✳	05/25/23 10:24	06/04/23 15:35	1
Phenol	<0.19		0.19	0.016	mg/Kg	✳	05/25/23 10:24	06/04/23 15:35	1
<b>Pyrene</b>	<b>0.015</b>	<b>J</b>	0.038	0.010	mg/Kg	✳	05/25/23 10:24	06/04/23 15:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	67		31 - 166	05/25/23 10:24	06/04/23 15:35	1
Phenol-d5	71		30 - 153	05/25/23 10:24	06/04/23 15:35	1
Nitrobenzene-d5 (Surr)	68		37 - 147	05/25/23 10:24	06/04/23 15:35	1
2-Fluorobiphenyl	77		43 - 145	05/25/23 10:24	06/04/23 15:35	1
2,4,6-Tribromophenol	76		31 - 143	05/25/23 10:24	06/04/23 15:35	1
Terphenyl-d14 (Surr)	90		42 - 157	05/25/23 10:24	06/04/23 15:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.29</b>	<b>J</b>	1.1	0.22	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
<b>Arsenic</b>	<b>8.2</b>		0.56	0.19	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
<b>Barium</b>	<b>25</b>		0.56	0.064	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
<b>Beryllium</b>	<b>0.53</b>		0.22	0.052	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
<b>Boron</b>	<b>8.4</b>		2.8	0.26	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
<b>Cadmium</b>	<b>0.33</b>	<b>B</b>	0.11	0.020	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
<b>Calcium</b>	<b>67000</b>	<b>B</b>	56	9.5	mg/Kg	✳	05/23/23 15:04	05/31/23 18:20	5
<b>Chromium</b>	<b>8.3</b>		0.56	0.28	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
<b>Cobalt</b>	<b>7.5</b>		0.28	0.073	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
<b>Copper</b>	<b>19</b>		0.56	0.16	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
<b>Iron</b>	<b>15000</b>	<b>B</b>	11	5.8	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
<b>Lead</b>	<b>10</b>		0.28	0.13	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
<b>Magnesium</b>	<b>29000</b>	<b>B</b>	5.6	2.8	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
<b>Manganese</b>	<b>300</b>		0.56	0.081	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
<b>Nickel</b>	<b>19</b>		0.56	0.16	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
<b>Potassium</b>	<b>1500</b>		28	9.9	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
Selenium	<0.56		0.56	0.33	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
<b>Silver</b>	<b>0.18</b>	<b>J</b>	0.28	0.072	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
<b>Sodium</b>	<b>190</b>		56	8.3	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
Thallium	<0.56		0.56	0.28	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
<b>Vanadium</b>	<b>11</b>		0.28	0.066	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1
<b>Zinc</b>	<b>85</b>		1.1	0.49	mg/Kg	✳	05/23/23 15:04	05/30/23 15:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		05/25/23 17:13	05/31/23 22:19	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/25/23 17:13	05/31/23 22:19	1
<b>Manganese</b>	<b>2.0</b>		0.025	0.010	mg/L		05/25/23 17:13	05/31/23 22:19	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B77-4**

**Lab Sample ID: 500-233918-4**

Date Collected: 05/16/23 09:30

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 87.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		05/25/23 17:13	06/02/23 00:21	1
<b>Barium</b>	<b>0.16</b>	<b>J</b>	0.50	0.050	mg/L		05/25/23 17:13	06/02/23 00:21	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/25/23 17:13	06/02/23 00:21	1
<b>Boron</b>	<b>0.10</b>		0.10	0.050	mg/L		05/25/23 17:13	06/02/23 00:21	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/25/23 17:13	06/02/23 00:21	1
<b>Calcium</b>	<b>26</b>		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 00:21	1
<b>Chromium</b>	<b>0.037</b>		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:21	1
<b>Cobalt</b>	<b>0.012</b>	<b>J</b>	0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:21	1
<b>Iron</b>	<b>25</b>		0.40	0.20	mg/L		05/25/23 17:13	06/02/23 00:21	1
<b>Lead</b>	<b>0.022</b>		0.0075	0.0075	mg/L		05/25/23 17:13	06/02/23 00:21	1
<b>Manganese</b>	<b>0.24</b>		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:21	1
<b>Nickel</b>	<b>0.034</b>		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:21	1
<b>Potassium</b>	<b>12</b>		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 00:21	1
Selenium	<0.050		0.050	0.020	mg/L		05/25/23 17:13	06/02/23 00:21	1
Silver	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:21	1
<b>Zinc</b>	<b>0.056</b>	<b>J</b>	0.50	0.020	mg/L		05/25/23 17:13	06/02/23 00:21	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		05/25/23 17:13	06/01/23 21:53	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/25/23 17:13	06/01/23 21:53	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		05/30/23 10:40	05/31/23 10:18	1

**Method: SW846 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.016</b>	<b>J</b>	0.018	0.0098	mg/Kg	⊛	05/30/23 14:40	05/31/23 07:06	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	⊛	05/24/23 08:23	05/24/23 10:16	1
<b>pH (SW846 9045D)</b>	<b>8.0</b>		0.2	0.2	SU			05/23/23 18:32	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B76-1**

**Lab Sample ID: 500-233918-5**

Date Collected: 05/16/23 09:40

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 87.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
1,1,1,2-Tetrachloroethane	<0.0019	*3	0.0019	0.00061	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00081	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
1,1-Dichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
1,1-Dichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
1,2-Dichloroethane	<0.0047		0.0047	0.0015	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
1,2-Dichloropropane	<0.0019		0.0019	0.00049	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00067	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
2-Butanone (MEK)	<0.0047		0.0047	0.0021	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.0014	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Acetone	<0.019		0.019	0.0083	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Benzene	<0.0019		0.0019	0.00048	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Bromoform	<0.0019		0.0019	0.00055	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Bromomethane	<0.0047		0.0047	0.0018	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Carbon disulfide	<0.0047		0.0047	0.00099	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Carbon tetrachloride	<0.0019		0.0019	0.00055	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Chlorobenzene	<0.0019		0.0019	0.00070	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Chloroethane	<0.0047		0.0047	0.0014	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Chloroform	<0.0019		0.0019	0.00066	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Chloromethane	<0.0047		0.0047	0.0019	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00053	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00057	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Dibromochloromethane	<0.0019		0.0019	0.00062	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Ethylbenzene	<0.0019		0.0019	0.00091	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00056	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Methylene Chloride	<0.0047		0.0047	0.0019	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Styrene	<0.0019		0.0019	0.00057	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Tetrachloroethene	<0.0019		0.0019	0.00065	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Toluene	<0.0019		0.0019	0.00048	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00084	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00067	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Trichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Vinyl chloride	<0.0019		0.0019	0.00084	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1
Xylenes, Total	<0.0038		0.0038	0.00061	mg/Kg	☆	05/17/23 18:00	05/23/23 19:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 134	05/17/23 18:00	05/23/23 19:03	1
4-Bromofluorobenzene (Surr)	142	*3 S1+	75 - 131	05/17/23 18:00	05/23/23 19:03	1
Dibromofluoromethane	104		75 - 126	05/17/23 18:00	05/23/23 19:03	1
Toluene-d8 (Surr)	107		75 - 124	05/17/23 18:00	05/23/23 19:03	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	F1	0.19	0.027	mg/Kg	☆	05/25/23 10:24	06/06/23 12:45	1
1,2-Dichlorobenzene	<0.19	F1	0.19	0.015	mg/Kg	☆	05/25/23 10:24	06/06/23 12:45	1
1,3-Dichlorobenzene	<0.19	F1	0.19	0.017	mg/Kg	☆	05/25/23 10:24	06/06/23 12:45	1
1,4-Dichlorobenzene	<0.19	F1	0.19	0.018	mg/Kg	☆	05/25/23 10:24	06/06/23 12:45	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.027	mg/Kg	☆	05/25/23 10:24	06/06/23 12:45	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B76-1**

**Lab Sample ID: 500-233918-5**

**Date Collected: 05/16/23 09:40**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**Percent Solids: 87.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.37		0.37	0.014	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
2,4,6-Trichlorophenol	<0.37		0.37	0.013	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
2,4-Dichlorophenol	<0.37	F2	0.37	0.013	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
2,4-Dimethylphenol	<0.37		0.37	0.084	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
2,4-Dinitrophenol	<0.76		0.76	0.22	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
2,4-Dinitrotoluene	<0.19		0.19	0.021	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
2,6-Dinitrotoluene	<0.19		0.19	0.013	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
2-Chloronaphthalene	<0.19		0.19	0.014	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
2-Chlorophenol	<0.19	F1	0.19	0.012	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
<b>2-Methylnaphthalene</b>	<b>0.089</b>		0.076	0.0075	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
2-Methylphenol	<0.19		0.19	0.020	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
2-Nitroaniline	<0.19		0.19	0.020	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
2-Nitrophenol	<0.37	F1	0.37	0.025	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
3 & 4 Methylphenol	<0.19		0.19	0.027	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.031	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
3-Nitroaniline	<0.37		0.37	0.017	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.21	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.026	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
4-Chloro-3-methylphenol	<0.37		0.37	0.015	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
4-Chloroaniline	<0.76		0.76	0.39	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
4-Nitroaniline	<0.37		0.37	0.028	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
4-Nitrophenol	<0.76		0.76	0.14	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
<b>Acenaphthene</b>	<b>0.016</b>	<b>J</b>	0.037	0.0076	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
Acenaphthylene	<0.037		0.037	0.0064	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
<b>Anthracene</b>	<b>0.034</b>	<b>J</b>	0.037	0.0077	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
<b>Benzo[a]anthracene</b>	<b>0.054</b>		0.037	0.0080	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
<b>Benzo[a]pyrene</b>	<b>0.041</b>		0.037	0.036	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
<b>Benzo[b]fluoranthene</b>	<b>0.044</b>		0.037	0.036	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
<b>Benzo[g,h,i]perylene</b>	<b>0.039</b>		0.037	0.0081	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
<b>Benzo[k]fluoranthene</b>	<b>0.022</b>	<b>J</b>	0.037	0.014	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.014	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.017	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.15	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
Butyl benzyl phthalate	<0.19		0.19	0.019	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
<b>Carbazole</b>	<b>0.019</b>	<b>J</b>	0.19	0.015	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
<b>Chrysene</b>	<b>0.070</b>		0.037	0.0099	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
Dibenz(a,h)anthracene	<0.037		0.037	0.037	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
<b>Dibenzofuran</b>	<b>0.021</b>	<b>J</b>	0.19	0.013	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
Diethyl phthalate	<0.19		0.19	0.017	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
Dimethyl phthalate	<0.19		0.19	0.0082	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
Di-n-butyl phthalate	<0.19		0.19	0.012	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
Di-n-octyl phthalate	<0.37		0.37	0.26	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
<b>Fluoranthene</b>	<b>0.090</b>		0.037	0.0087	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
<b>Fluorene</b>	<b>0.020</b>	<b>J</b>	0.037	0.011	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
Hexachlorobenzene	<0.076		0.076	0.0072	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
Hexachlorobutadiene	<0.19		0.19	0.021	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
Hexachlorocyclopentadiene	<0.76	F1	0.76	0.40	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1
Hexachloroethane	<0.19	F1	0.19	0.019	mg/Kg	☼	05/25/23 10:24	06/06/23 12:45	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B76-1**

**Lab Sample ID: 500-233918-5**

Date Collected: 05/16/23 09:40

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 87.2

**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	<0.037		0.037	0.037	mg/Kg	✳	05/25/23 10:24	06/06/23 12:45	1
Isophorone	<0.19	F2	0.19	0.019	mg/Kg	✳	05/25/23 10:24	06/06/23 12:45	1
<b>Naphthalene</b>	<b>0.019</b>	<b>J</b>	0.037	0.0068	mg/Kg	✳	05/25/23 10:24	06/06/23 12:45	1
Nitrobenzene	<0.037	F1	0.037	0.012	mg/Kg	✳	05/25/23 10:24	06/06/23 12:45	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.0074	mg/Kg	✳	05/25/23 10:24	06/06/23 12:45	1
N-Nitrosodiphenylamine	<0.19		0.19	0.022	mg/Kg	✳	05/25/23 10:24	06/06/23 12:45	1
Pentachlorophenol	<0.76		0.76	0.094	mg/Kg	✳	05/25/23 10:24	06/06/23 12:45	1
<b>Phenanthrene</b>	<b>0.16</b>		0.037	0.0082	mg/Kg	✳	05/25/23 10:24	06/06/23 12:45	1
Phenol	<0.19		0.19	0.016	mg/Kg	✳	05/25/23 10:24	06/06/23 12:45	1
<b>Pyrene</b>	<b>0.085</b>		0.037	0.010	mg/Kg	✳	05/25/23 10:24	06/06/23 12:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	61		31 - 166				05/25/23 10:24	06/06/23 12:45	1
Phenol-d5	66		30 - 153				05/25/23 10:24	06/06/23 12:45	1
Nitrobenzene-d5 (Surr)	64		37 - 147				05/25/23 10:24	06/06/23 12:45	1
2-Fluorobiphenyl	78		43 - 145				05/25/23 10:24	06/06/23 12:45	1
2,4,6-Tribromophenol	60		31 - 143				05/25/23 10:24	06/06/23 12:45	1
Terphenyl-d14 (Surr)	89		42 - 157				05/25/23 10:24	06/06/23 12:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.53</b>	<b>J</b>	1.1	0.22	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
<b>Arsenic</b>	<b>9.4</b>		0.56	0.19	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
<b>Barium</b>	<b>24</b>		0.56	0.064	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
<b>Beryllium</b>	<b>0.75</b>		0.22	0.052	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
<b>Boron</b>	<b>12</b>		2.8	0.26	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
<b>Cadmium</b>	<b>0.17</b>	<b>B</b>	0.11	0.020	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
<b>Calcium</b>	<b>44000</b>	<b>B</b>	56	9.5	mg/Kg	✳	05/23/23 15:04	05/31/23 18:23	5
<b>Chromium</b>	<b>13</b>		0.56	0.28	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
<b>Cobalt</b>	<b>14</b>		0.28	0.073	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
<b>Copper</b>	<b>28</b>		0.56	0.16	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
<b>Iron</b>	<b>20000</b>	<b>B</b>	11	5.8	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
<b>Lead</b>	<b>17</b>		0.28	0.13	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
<b>Magnesium</b>	<b>23000</b>	<b>B</b>	5.6	2.8	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
<b>Manganese</b>	<b>350</b>		0.56	0.081	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
<b>Nickel</b>	<b>35</b>		0.56	0.16	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
<b>Potassium</b>	<b>2600</b>		28	9.9	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
<b>Selenium</b>	<b>0.71</b>		0.56	0.33	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
<b>Silver</b>	<b>0.27</b>	<b>J</b>	0.28	0.072	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
<b>Sodium</b>	<b>660</b>		56	8.3	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
Thallium	<0.56		0.56	0.28	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
<b>Vanadium</b>	<b>15</b>		0.28	0.066	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1
<b>Zinc</b>	<b>75</b>		1.1	0.49	mg/Kg	✳	05/23/23 15:04	05/30/23 15:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		05/25/23 17:13	05/31/23 22:28	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/25/23 17:13	05/31/23 22:28	1
<b>Manganese</b>	<b>1.9</b>		0.025	0.010	mg/L		05/25/23 17:13	05/31/23 22:28	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B76-1**

**Lab Sample ID: 500-233918-5**

Date Collected: 05/16/23 09:40

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 87.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.025</b>	<b>J</b>	0.050	0.010	mg/L		05/25/23 17:13	06/02/23 00:25	1
<b>Barium</b>	<b>0.14</b>	<b>J</b>	0.50	0.050	mg/L		05/25/23 17:13	06/02/23 00:25	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/25/23 17:13	06/02/23 00:25	1
<b>Boron</b>	<b>0.15</b>		0.10	0.050	mg/L		05/25/23 17:13	06/02/23 00:25	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/25/23 17:13	06/02/23 00:25	1
<b>Calcium</b>	<b>21</b>		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 00:25	1
<b>Chromium</b>	<b>0.065</b>		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:25	1
<b>Cobalt</b>	<b>0.022</b>	<b>J</b>	0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:25	1
<b>Iron</b>	<b>55</b>		0.40	0.20	mg/L		05/25/23 17:13	06/02/23 00:25	1
<b>Lead</b>	<b>0.025</b>		0.0075	0.0075	mg/L		05/25/23 17:13	06/02/23 00:25	1
<b>Manganese</b>	<b>0.33</b>		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:25	1
<b>Nickel</b>	<b>0.068</b>		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:25	1
<b>Potassium</b>	<b>22</b>		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 00:25	1
Selenium	<0.050		0.050	0.020	mg/L		05/25/23 17:13	06/02/23 00:25	1
Silver	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:25	1
<b>Zinc</b>	<b>0.16</b>	<b>J</b>	0.50	0.020	mg/L		05/25/23 17:13	06/02/23 00:25	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		05/25/23 17:13	06/01/23 21:55	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/25/23 17:13	06/01/23 21:55	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		05/30/23 10:40	05/31/23 10:20	1

**Method: SW846 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.019</b>		0.018	0.0095	mg/Kg	⊛	05/30/23 14:40	05/31/23 07:07	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	⊛	05/24/23 08:24	05/24/23 10:17	1
<b>pH (SW846 9045D)</b>	<b>8.2</b>		0.2	0.2	SU			05/23/23 18:35	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B76-2**

**Lab Sample ID: 500-233918-6**

Date Collected: 05/16/23 09:50

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 87.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00083	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
1,1-Dichloroethane	<0.0019		0.0019	0.00066	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
1,1-Dichloroethene	<0.0019		0.0019	0.00067	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00068	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
<b>2-Butanone (MEK)</b>	<b>0.0086</b>		0.0048	0.0022	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
<b>Acetone</b>	<b>0.055</b>		0.019	0.0084	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Bromoform	<0.0019		0.0019	0.00057	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Carbon disulfide	<0.0048		0.0048	0.0010	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Chlorobenzene	<0.0019		0.0019	0.00072	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Chloroethane	<0.0048		0.0048	0.0014	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Chloroform	<0.0019		0.0019	0.00067	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00058	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Ethylbenzene	<0.0019		0.0019	0.00093	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00057	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Styrene	<0.0019		0.0019	0.00059	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Tetrachloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Toluene	<0.0019		0.0019	0.00049	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00086	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00068	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Trichloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Vinyl chloride	<0.0019		0.0019	0.00086	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1
Xylenes, Total	<0.0039		0.0039	0.00062	mg/Kg	☼	05/17/23 18:00	05/23/23 19:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 134	05/17/23 18:00	05/23/23 19:29	1
4-Bromofluorobenzene (Surr)	96		75 - 131	05/17/23 18:00	05/23/23 19:29	1
Dibromofluoromethane	101		75 - 126	05/17/23 18:00	05/23/23 19:29	1
Toluene-d8 (Surr)	90		75 - 124	05/17/23 18:00	05/23/23 19:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.18		0.18	0.026	mg/Kg	☼	05/25/23 10:24	06/06/23 12:20	1
1,2-Dichlorobenzene	<0.18		0.18	0.015	mg/Kg	☼	05/25/23 10:24	06/06/23 12:20	1
1,3-Dichlorobenzene	<0.18		0.18	0.016	mg/Kg	☼	05/25/23 10:24	06/06/23 12:20	1
1,4-Dichlorobenzene	<0.18		0.18	0.017	mg/Kg	☼	05/25/23 10:24	06/06/23 12:20	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.026	mg/Kg	☼	05/25/23 10:24	06/06/23 12:20	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B76-2**

**Lab Sample ID: 500-233918-6**

**Date Collected: 05/16/23 09:50**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**Percent Solids: 87.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.36		0.36	0.014	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
2,4,6-Trichlorophenol	<0.36		0.36	0.012	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
2,4-Dichlorophenol	<0.36		0.36	0.013	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
2,4-Dimethylphenol	<0.36		0.36	0.081	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
2,4-Dinitrophenol	<0.73		0.73	0.21	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
2,4-Dinitrotoluene	<0.18		0.18	0.020	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
2,6-Dinitrotoluene	<0.18		0.18	0.012	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
2-Chloronaphthalene	<0.18		0.18	0.013	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
2-Chlorophenol	<0.18		0.18	0.012	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
<b>2-Methylnaphthalene</b>	<b>0.014</b>	<b>J</b>	0.073	0.0072	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
2-Methylphenol	<0.18		0.18	0.019	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
2-Nitroaniline	<0.18		0.18	0.019	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
2-Nitrophenol	<0.36		0.36	0.024	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
3 & 4 Methylphenol	<0.18		0.18	0.026	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.029	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
3-Nitroaniline	<0.36		0.36	0.016	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.20	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.025	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
4-Chloro-3-methylphenol	<0.36		0.36	0.014	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
4-Chloroaniline	<0.73		0.73	0.38	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
4-Nitroaniline	<0.36		0.36	0.027	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
4-Nitrophenol	<0.73		0.73	0.13	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
<b>Acenaphthene</b>	<b>0.021</b>	<b>J</b>	0.036	0.0073	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
Acenaphthylene	<0.036		0.036	0.0061	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
<b>Anthracene</b>	<b>0.012</b>	<b>J</b>	0.036	0.0074	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
<b>Benzo[a]anthracene</b>	<b>0.027</b>	<b>J</b>	0.036	0.0076	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
Benzo[a]pyrene	<0.036		0.036	0.035	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
Benzo[b]fluoranthene	<0.036		0.036	0.034	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
<b>Benzo[g,h,i]perylene</b>	<b>0.015</b>	<b>J</b>	0.036	0.0078	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
Benzo[k]fluoranthene	<0.036		0.036	0.014	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.013	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.017	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.14	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
Butyl benzyl phthalate	<0.18		0.18	0.018	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
<b>Carbazole</b>	<b>0.021</b>	<b>J</b>	0.18	0.014	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
<b>Chrysene</b>	<b>0.024</b>	<b>J</b>	0.036	0.0095	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
Dibenz(a,h)anthracene	<0.036		0.036	0.036	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
<b>Dibenzofuran</b>	<b>0.014</b>	<b>J</b>	0.18	0.013	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
Diethyl phthalate	<0.18		0.18	0.016	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
Dimethyl phthalate	<0.18		0.18	0.0078	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
Di-n-butyl phthalate	<0.18		0.18	0.011	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
Di-n-octyl phthalate	<0.36		0.36	0.25	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
<b>Fluoranthene</b>	<b>0.046</b>		0.036	0.0084	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
<b>Fluorene</b>	<b>0.018</b>	<b>J</b>	0.036	0.011	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
Hexachlorobenzene	<0.073		0.073	0.0069	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
Hexachlorobutadiene	<0.18		0.18	0.020	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
Hexachlorocyclopentadiene	<0.73		0.73	0.38	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1
Hexachloroethane	<0.18		0.18	0.018	mg/Kg	✳	05/25/23 10:24	06/06/23 12:20	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B76-2**

**Lab Sample ID: 500-233918-6**

Date Collected: 05/16/23 09:50

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 87.8

**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	<0.036		0.036	0.035	mg/Kg	☼	05/25/23 10:24	06/06/23 12:20	1
Isophorone	<0.18		0.18	0.019	mg/Kg	☼	05/25/23 10:24	06/06/23 12:20	1
<b>Naphthalene</b>	<b>0.022</b>	<b>J</b>	0.036	0.0065	mg/Kg	☼	05/25/23 10:24	06/06/23 12:20	1
Nitrobenzene	<0.036		0.036	0.011	mg/Kg	☼	05/25/23 10:24	06/06/23 12:20	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.0071	mg/Kg	☼	05/25/23 10:24	06/06/23 12:20	1
N-Nitrosodiphenylamine	<0.18		0.18	0.021	mg/Kg	☼	05/25/23 10:24	06/06/23 12:20	1
Pentachlorophenol	<0.73		0.73	0.090	mg/Kg	☼	05/25/23 10:24	06/06/23 12:20	1
<b>Phenanthrene</b>	<b>0.082</b>		0.036	0.0078	mg/Kg	☼	05/25/23 10:24	06/06/23 12:20	1
Phenol	<0.18		0.18	0.016	mg/Kg	☼	05/25/23 10:24	06/06/23 12:20	1
<b>Pyrene</b>	<b>0.034</b>	<b>J</b>	0.036	0.0098	mg/Kg	☼	05/25/23 10:24	06/06/23 12:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	16	S1-	31 - 166	05/25/23 10:24	06/06/23 12:20	1
Phenol-d5	16	S1-	30 - 153	05/25/23 10:24	06/06/23 12:20	1
Nitrobenzene-d5 (Surr)	16	S1-	37 - 147	05/25/23 10:24	06/06/23 12:20	1
2-Fluorobiphenyl	18	S1-	43 - 145	05/25/23 10:24	06/06/23 12:20	1
2,4,6-Tribromophenol	16	S1-	31 - 143	05/25/23 10:24	06/06/23 12:20	1
Terphenyl-d14 (Surr)	20	S1-	42 - 157	05/25/23 10:24	06/06/23 12:20	1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	71		31 - 166	06/08/23 07:50	06/09/23 12:48	1
Phenol-d5	79		30 - 153	06/08/23 07:50	06/09/23 12:48	1
Nitrobenzene-d5 (Surr)	68		37 - 147	06/08/23 07:50	06/09/23 12:48	1
2-Fluorobiphenyl	85		43 - 145	06/08/23 07:50	06/09/23 12:48	1
2,4,6-Tribromophenol	82		31 - 143	06/08/23 07:50	06/09/23 12:48	1
Terphenyl-d14 (Surr)	105		42 - 157	06/08/23 07:50	06/09/23 12:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.62</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1
<b>Arsenic</b>	<b>12</b>		0.56	0.19	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1
<b>Barium</b>	<b>18</b>		0.56	0.064	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1
<b>Beryllium</b>	<b>0.69</b>		0.22	0.052	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1
<b>Boron</b>	<b>8.3</b>		2.8	0.26	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1
<b>Cadmium</b>	<b>0.32</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1
<b>Calcium</b>	<b>42000</b>	<b>B</b>	56	9.5	mg/Kg	☼	05/23/23 15:04	05/31/23 18:26	5
<b>Chromium</b>	<b>11</b>		0.56	0.28	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1
<b>Cobalt</b>	<b>13</b>		0.28	0.073	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1
<b>Copper</b>	<b>33</b>		0.56	0.16	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1
<b>Iron</b>	<b>20000</b>	<b>B</b>	11	5.8	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1
<b>Lead</b>	<b>18</b>		0.28	0.13	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1
<b>Magnesium</b>	<b>21000</b>	<b>B</b>	5.6	2.8	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1
<b>Manganese</b>	<b>390</b>		0.56	0.081	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1
<b>Nickel</b>	<b>31</b>		0.56	0.16	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1
<b>Potassium</b>	<b>1700</b>		28	9.9	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1
<b>Selenium</b>	<b>0.47</b>	<b>J</b>	0.56	0.33	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1
<b>Silver</b>	<b>0.25</b>	<b>J</b>	0.28	0.072	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1
<b>Sodium</b>	<b>300</b>		56	8.3	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B76-2**

**Lab Sample ID: 500-233918-6**

Date Collected: 05/16/23 09:50

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 87.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	17		0.28	0.066	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1
Zinc	98		1.1	0.49	mg/Kg	☼	05/23/23 15:04	05/30/23 15:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.34	J	0.40	0.20	mg/L		05/25/23 17:13	05/31/23 22:32	1
Lead	0.015		0.0075	0.0075	mg/L		05/25/23 17:13	05/31/23 22:32	1
Manganese	7.1		0.025	0.010	mg/L		05/25/23 17:13	05/31/23 22:32	1

**Method: SW846 6010B - 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		05/25/23 17:13	06/02/23 00:28	1
Barium	0.14	J	0.50	0.050	mg/L		05/25/23 17:13	06/02/23 00:28	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/25/23 17:13	06/02/23 00:28	1
Boron	0.12		0.10	0.050	mg/L		05/25/23 17:13	06/02/23 00:28	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/25/23 17:13	06/02/23 00:28	1
Calcium	19		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 00:28	1
Chromium	0.052		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:28	1
Cobalt	0.026		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:28	1
Iron	56		0.40	0.20	mg/L		05/25/23 17:13	06/02/23 00:28	1
Lead	0.047		0.0075	0.0075	mg/L		05/25/23 17:13	06/02/23 00:28	1
Manganese	0.56		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:28	1
Nickel	0.065		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:28	1
Potassium	14		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 00:28	1
Selenium	<0.050		0.050	0.020	mg/L		05/25/23 17:13	06/02/23 00:28	1
Silver	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:28	1
Zinc	0.16	J	0.50	0.020	mg/L		05/25/23 17:13	06/02/23 00:28	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		05/25/23 17:13	06/01/23 21:57	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/25/23 17:13	06/01/23 21:57	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		05/30/23 10:40	05/31/23 10:23	1

**Method: SW846 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.018	0.0096	mg/Kg	☼	05/30/23 14:40	05/31/23 07:13	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	☼	05/24/23 08:25	05/24/23 10:19	1
pH (SW846 9045D)	7.9		0.2	0.2	SU			05/23/23 18:37	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B85-1**

**Lab Sample ID: 500-233918-10**

Date Collected: 05/16/23 10:30

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 88.5

**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	0.00054	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Acetone	<0.016		0.016	0.0071	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Carbon disulfide	<0.0041		0.0041	0.00084	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Chloromethane	<0.0041		0.0041	0.0016	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Vinyl chloride	<0.0016		0.0016	0.00072	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1
Xylenes, Total	<0.0032		0.0032	0.00052	mg/Kg	☼	05/17/23 18:00	05/25/23 01:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 134	05/17/23 18:00	05/25/23 01:07	1
4-Bromofluorobenzene (Surr)	108		75 - 131	05/17/23 18:00	05/25/23 01:07	1
Dibromofluoromethane	99		75 - 126	05/17/23 18:00	05/25/23 01:07	1
Toluene-d8 (Surr)	97		75 - 124	05/17/23 18:00	05/25/23 01:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.18		0.18	0.026	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
1,2-Dichlorobenzene	<0.18		0.18	0.015	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
1,3-Dichlorobenzene	<0.18		0.18	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
1,4-Dichlorobenzene	<0.18		0.18	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.026	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B85-1**

**Lab Sample ID: 500-233918-10**

**Date Collected: 05/16/23 10:30**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**Percent Solids: 88.5**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.36		0.36	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
2,4,6-Trichlorophenol	<0.36		0.36	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
2,4-Dichlorophenol	<0.36		0.36	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
2,4-Dimethylphenol	<0.36		0.36	0.080	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
2,4-Dinitrophenol	<0.73		0.73	0.21	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
2,4-Dinitrotoluene	<0.18		0.18	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
2,6-Dinitrotoluene	<0.18		0.18	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
2-Chloronaphthalene	<0.18		0.18	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
2-Chlorophenol	<0.18		0.18	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
2-Methylnaphthalene	<0.073		0.073	0.0072	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
2-Methylphenol	<0.18		0.18	0.019	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
2-Nitroaniline	<0.18		0.18	0.019	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
2-Nitrophenol	<0.36		0.36	0.024	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
3 & 4 Methylphenol	<0.18		0.18	0.026	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.029	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
3-Nitroaniline	<0.36		0.36	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.20	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.025	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
4-Chloro-3-methylphenol	<0.36		0.36	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
4-Chloroaniline	<0.73		0.73	0.38	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
4-Nitroaniline	<0.36		0.36	0.027	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
4-Nitrophenol	<0.73		0.73	0.13	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Acenaphthene	<0.036		0.036	0.0073	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Acenaphthylene	<0.036		0.036	0.0061	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Anthracene	<0.036		0.036	0.0073	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Benzo[a]anthracene	<0.036		0.036	0.0076	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Benzo[a]pyrene	<0.036		0.036	0.035	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Benzo[b]fluoranthene	<0.036		0.036	0.034	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Benzo[g,h,i]perylene	<0.036		0.036	0.0078	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Benzo[k]fluoranthene	<0.036		0.036	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.14	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Butyl benzyl phthalate	<0.18		0.18	0.018	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Carbazole	<0.18		0.18	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Chrysene	<0.036		0.036	0.0095	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Dibenz(a,h)anthracene	<0.036		0.036	0.036	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Dibenzofuran	<0.18		0.18	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Diethyl phthalate	<0.18		0.18	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Dimethyl phthalate	<0.18		0.18	0.0078	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Di-n-butyl phthalate	<0.18		0.18	0.011	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Di-n-octyl phthalate	<0.36		0.36	0.25	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Fluoranthene	<0.036		0.036	0.0084	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Fluorene	<0.036		0.036	0.011	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Hexachlorobenzene	<0.073		0.073	0.0069	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Hexachlorobutadiene	<0.18		0.18	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Hexachlorocyclopentadiene	<0.73		0.73	0.38	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1
Hexachloroethane	<0.18		0.18	0.018	mg/Kg	☼	05/25/23 10:24	06/04/23 13:31	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B85-1**

**Lab Sample ID: 500-233918-10**

Date Collected: 05/16/23 10:30

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 88.5

**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	<0.036		0.036	0.035	mg/Kg	✳	05/25/23 10:24	06/04/23 13:31	1
Isophorone	<0.18		0.18	0.019	mg/Kg	✳	05/25/23 10:24	06/04/23 13:31	1
Naphthalene	<0.036		0.036	0.0065	mg/Kg	✳	05/25/23 10:24	06/04/23 13:31	1
Nitrobenzene	<0.036		0.036	0.011	mg/Kg	✳	05/25/23 10:24	06/04/23 13:31	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.0071	mg/Kg	✳	05/25/23 10:24	06/04/23 13:31	1
N-Nitrosodiphenylamine	<0.18		0.18	0.021	mg/Kg	✳	05/25/23 10:24	06/04/23 13:31	1
Pentachlorophenol	<0.73		0.73	0.090	mg/Kg	✳	05/25/23 10:24	06/04/23 13:31	1
Phenanthrene	<0.036		0.036	0.0078	mg/Kg	✳	05/25/23 10:24	06/04/23 13:31	1
Phenol	<0.18		0.18	0.016	mg/Kg	✳	05/25/23 10:24	06/04/23 13:31	1
Pyrene	<0.036		0.036	0.0098	mg/Kg	✳	05/25/23 10:24	06/04/23 13:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	77		31 - 166				05/25/23 10:24	06/04/23 13:31	1
Phenol-d5	78		30 - 153				05/25/23 10:24	06/04/23 13:31	1
Nitrobenzene-d5 (Surr)	81		37 - 147				05/25/23 10:24	06/04/23 13:31	1
2-Fluorobiphenyl	85		43 - 145				05/25/23 10:24	06/04/23 13:31	1
2,4,6-Tribromophenol	84		31 - 143				05/25/23 10:24	06/04/23 13:31	1
Terphenyl-d14 (Surr)	90		42 - 157				05/25/23 10:24	06/04/23 13:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.67	J	1.1	0.21	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Arsenic	10		0.54	0.18	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Barium	14		0.54	0.062	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Beryllium	0.62		0.22	0.050	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Boron	5.0		2.7	0.25	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Cadmium	0.12	B	0.11	0.019	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Calcium	1500	B	11	1.8	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Chromium	12		0.54	0.27	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Cobalt	7.1		0.27	0.071	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Copper	30		0.54	0.15	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Iron	18000	B	11	5.6	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Lead	15		0.27	0.12	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Magnesium	2500	B	5.4	2.7	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Manganese	83		0.54	0.078	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Nickel	23		0.54	0.16	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Potassium	1000		27	9.6	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Selenium	<0.54		0.54	0.32	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Silver	0.29		0.27	0.070	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Sodium	43	J	54	8.0	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Thallium	<0.54		0.54	0.27	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Vanadium	23		0.27	0.064	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	1
Zinc	70		1.1	0.47	mg/Kg	✳	05/23/23 15:04	05/30/23 16:04	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		05/25/23 17:13	05/31/23 22:45	1
Iron	<0.40		0.40	0.20	mg/L		05/25/23 17:13	05/31/23 22:45	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/25/23 17:13	05/31/23 22:45	1
Manganese	0.018	J	0.025	0.010	mg/L		05/25/23 17:13	05/31/23 22:45	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B85-1**

**Lab Sample ID: 500-233918-10**

Date Collected: 05/16/23 10:30

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 88.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.043	J	0.050	0.010	mg/L		05/25/23 17:13	06/02/23 00:42	1
Barium	0.13	J	0.50	0.050	mg/L		05/25/23 17:13	06/02/23 00:42	1
Beryllium	0.0056		0.0040	0.0040	mg/L		05/25/23 17:13	06/02/23 00:42	1
Boron	0.17		0.10	0.050	mg/L		05/25/23 17:13	06/02/23 00:42	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/25/23 17:13	06/02/23 00:42	1
Calcium	10		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 00:42	1
Chromium	0.10		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:42	1
Cobalt	0.030		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:42	1
Iron	100		0.40	0.20	mg/L		05/25/23 17:13	06/02/23 00:42	1
Lead	0.073		0.0075	0.0075	mg/L		05/25/23 17:13	06/02/23 00:42	1
Manganese	0.27		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:42	1
Nickel	0.10		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:42	1
Potassium	24		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 00:42	1
Selenium	<0.050		0.050	0.020	mg/L		05/25/23 17:13	06/02/23 00:42	1
Silver	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:42	1
Zinc	0.39	J	0.50	0.020	mg/L		05/25/23 17:13	06/02/23 00:42	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		05/25/23 17:13	06/06/23 16:19	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		05/25/23 17:13	06/01/23 22:05	1
Thallium	0.0025		0.0020	0.0020	mg/L		05/25/23 17:13	06/01/23 22:05	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		05/30/23 10:40	05/31/23 10:31	1

**Method: SW846 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025		0.017	0.0087	mg/Kg	☆	05/30/23 14:40	05/31/23 07:20	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.23		0.23	0.12	mg/Kg	☆	05/24/23 08:06	05/24/23 10:51	1
pH (SW846 9045D)	7.8		0.2	0.2	SU			05/23/23 18:42	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B85-2**

**Lab Sample ID: 500-233918-11**

**Date Collected: 05/16/23 10:40**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**Percent Solids: 91.3**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
1,1,1,2-Tetrachloroethane	<0.0018	*3	0.0018	0.00057	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Acetone	<0.018		0.018	0.0078	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Carbon disulfide	<0.0045		0.0045	0.00093	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Ethylbenzene	<0.0018		0.0018	0.00086	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Vinyl chloride	<0.0018		0.0018	0.00080	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	05/17/23 18:00	05/25/23 01:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		70 - 134	05/17/23 18:00	05/25/23 01:33	1
4-Bromofluorobenzene (Surr)	168	S1+ *3	75 - 131	05/17/23 18:00	05/25/23 01:33	1
Dibromofluoromethane	106		75 - 126	05/17/23 18:00	05/25/23 01:33	1
Toluene-d8 (Surr)	120		75 - 124	05/17/23 18:00	05/25/23 01:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.18		0.18	0.025	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
1,2-Dichlorobenzene	<0.18		0.18	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
1,3-Dichlorobenzene	<0.18		0.18	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
1,4-Dichlorobenzene	<0.18		0.18	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.025	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B85-2**

**Lab Sample ID: 500-233918-11**

Date Collected: 05/16/23 10:40

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 91.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.35		0.35	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
2,4,6-Trichlorophenol	<0.35		0.35	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
2,4-Dichlorophenol	<0.35		0.35	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
2,4-Dimethylphenol	<0.35		0.35	0.080	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
2,4-Dinitrophenol	<0.72		0.72	0.21	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
2,4-Dinitrotoluene	<0.18		0.18	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
2,6-Dinitrotoluene	<0.18		0.18	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
2-Chloronaphthalene	<0.18		0.18	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
2-Chlorophenol	<0.18		0.18	0.011	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
<b>2-Methylnaphthalene</b>	<b>0.028</b>	<b>J</b>	0.072	0.0071	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
2-Methylphenol	<0.18		0.18	0.019	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
2-Nitroaniline	<0.18		0.18	0.019	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
2-Nitrophenol	<0.35		0.35	0.024	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
3 & 4 Methylphenol	<0.18		0.18	0.026	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.029	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
3-Nitroaniline	<0.35		0.35	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
4,6-Dinitro-2-methylphenol	<0.72		0.72	0.20	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.024	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
4-Chloro-3-methylphenol	<0.35		0.35	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
4-Chloroaniline	<0.72		0.72	0.37	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
4-Nitroaniline	<0.35		0.35	0.026	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
4-Nitrophenol	<0.72		0.72	0.13	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
<b>Acenaphthene</b>	<b>0.017</b>	<b>J</b>	0.035	0.0072	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Acenaphthylene	<0.035		0.035	0.0060	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Anthracene	<0.035		0.035	0.0073	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Benzo[a]anthracene	<0.035		0.035	0.0075	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Benzo[a]pyrene	<0.035		0.035	0.034	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Benzo[b]fluoranthene	<0.035		0.035	0.034	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
<b>Benzo[g,h,i]perylene</b>	<b>0.032</b>	<b>J</b>	0.035	0.0077	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Benzo[k]fluoranthene	<0.035		0.035	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.14	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Butyl benzyl phthalate	<0.18		0.18	0.018	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
<b>Carbazole</b>	<b>0.015</b>	<b>J</b>	0.18	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
<b>Chrysene</b>	<b>0.029</b>	<b>J</b>	0.035	0.0094	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Dibenz(a,h)anthracene	<0.035		0.035	0.035	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Dibenzofuran	<0.18		0.18	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Diethyl phthalate	<0.18		0.18	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Dimethyl phthalate	<0.18		0.18	0.0077	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Di-n-butyl phthalate	<0.18		0.18	0.011	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Di-n-octyl phthalate	<0.35		0.35	0.25	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Fluoranthene	<0.035		0.035	0.0083	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
<b>Fluorene</b>	<b>0.013</b>	<b>J</b>	0.035	0.011	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Hexachlorobenzene	<0.072		0.072	0.0068	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Hexachlorobutadiene	<0.18		0.18	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Hexachlorocyclopentadiene	<0.72		0.72	0.38	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1
Hexachloroethane	<0.18		0.18	0.018	mg/Kg	☼	05/25/23 10:24	06/04/23 18:27	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B85-2**

**Lab Sample ID: 500-233918-11**

Date Collected: 05/16/23 10:40

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 91.3

**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	<0.035		0.035	0.035	mg/Kg	✳	05/25/23 10:24	06/04/23 18:27	1
Isophorone	<0.18		0.18	0.018	mg/Kg	✳	05/25/23 10:24	06/04/23 18:27	1
Naphthalene	<0.035		0.035	0.0064	mg/Kg	✳	05/25/23 10:24	06/04/23 18:27	1
Nitrobenzene	<0.035		0.035	0.011	mg/Kg	✳	05/25/23 10:24	06/04/23 18:27	1
N-Nitrosodi-n-propylamine	<0.072		0.072	0.0070	mg/Kg	✳	05/25/23 10:24	06/04/23 18:27	1
N-Nitrosodiphenylamine	<0.18		0.18	0.021	mg/Kg	✳	05/25/23 10:24	06/04/23 18:27	1
Pentachlorophenol	<0.72		0.72	0.089	mg/Kg	✳	05/25/23 10:24	06/04/23 18:27	1
<b>Phenanthrene</b>	<b>0.064</b>		0.035	0.0077	mg/Kg	✳	05/25/23 10:24	06/04/23 18:27	1
Phenol	<0.18		0.18	0.015	mg/Kg	✳	05/25/23 10:24	06/04/23 18:27	1
<b>Pyrene</b>	<b>0.013</b>	<b>J</b>	0.035	0.0097	mg/Kg	✳	05/25/23 10:24	06/04/23 18:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	76		31 - 166	05/25/23 10:24	06/04/23 18:27	1
Phenol-d5	79		30 - 153	05/25/23 10:24	06/04/23 18:27	1
Nitrobenzene-d5 (Surr)	81		37 - 147	05/25/23 10:24	06/04/23 18:27	1
2-Fluorobiphenyl	85		43 - 145	05/25/23 10:24	06/04/23 18:27	1
2,4,6-Tribromophenol	49		31 - 143	05/25/23 10:24	06/04/23 18:27	1
Terphenyl-d14 (Surr)	85		42 - 157	05/25/23 10:24	06/04/23 18:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.39</b>	<b>J</b>	1.1	0.21	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
<b>Arsenic</b>	<b>10</b>		0.53	0.18	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
<b>Barium</b>	<b>17</b>		0.53	0.061	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
<b>Beryllium</b>	<b>0.56</b>		0.21	0.050	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
<b>Boron</b>	<b>9.2</b>		2.7	0.25	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
<b>Cadmium</b>	<b>0.23</b>	<b>B</b>	0.11	0.019	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
<b>Calcium</b>	<b>62000</b>	<b>B</b>	53	9.0	mg/Kg	✳	05/23/23 15:04	05/31/23 18:39	5
<b>Chromium</b>	<b>8.9</b>		0.53	0.26	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
<b>Cobalt</b>	<b>12</b>		0.27	0.070	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
<b>Copper</b>	<b>25</b>		0.53	0.15	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
<b>Iron</b>	<b>17000</b>	<b>B</b>	11	5.5	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
<b>Lead</b>	<b>15</b>		0.27	0.12	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
<b>Magnesium</b>	<b>29000</b>	<b>B</b>	5.3	2.6	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
<b>Manganese</b>	<b>330</b>		0.53	0.077	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
<b>Nickel</b>	<b>27</b>		0.53	0.15	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
<b>Potassium</b>	<b>1700</b>		27	9.4	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
<b>Selenium</b>	<b>0.41</b>	<b>J</b>	0.53	0.31	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
<b>Silver</b>	<b>0.20</b>	<b>J</b>	0.27	0.069	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
<b>Sodium</b>	<b>130</b>		53	7.9	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
Thallium	<0.53		0.53	0.26	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
<b>Vanadium</b>	<b>11</b>		0.27	0.063	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1
<b>Zinc</b>	<b>70</b>		1.1	0.47	mg/Kg	✳	05/23/23 15:04	05/30/23 16:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		05/25/23 17:13	06/02/23 00:46	1
Barium	<0.50		0.50	0.050	mg/L		05/25/23 17:13	06/02/23 00:46	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/25/23 17:13	06/02/23 00:46	1
Boron	<0.10		0.10	0.050	mg/L		05/25/23 17:13	06/02/23 00:46	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B85-2**

**Lab Sample ID: 500-233918-11**

Date Collected: 05/16/23 10:40

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 91.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/25/23 17:13	06/02/23 00:46	1
<b>Calcium</b>	<b>16</b>		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 00:46	1
Chromium	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:46	1
Cobalt	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:46	1
<b>Iron</b>	<b>0.57</b>		0.40	0.20	mg/L		05/25/23 17:13	06/02/23 00:46	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/25/23 17:13	06/02/23 00:46	1
Manganese	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:46	1
Nickel	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:46	1
<b>Potassium</b>	<b>1.8 J</b>		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 00:46	1
Selenium	<0.050		0.050	0.020	mg/L		05/25/23 17:13	06/02/23 00:46	1
Silver	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:46	1
Zinc	<0.50		0.50	0.020	mg/L		05/25/23 17:13	06/02/23 00:46	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		05/25/23 17:13	06/01/23 22:11	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/25/23 17:13	06/01/23 22:11	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		05/30/23 10:40	05/31/23 10:38	1

**Method: SW846 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.017</b>		0.017	0.0092	mg/Kg	⊛	05/30/23 14:40	05/31/23 07:28	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	⊛	05/24/23 08:07	05/24/23 10:52	1
<b>pH (SW846 9045D)</b>	<b>7.8</b>		0.2	0.2	SU			05/23/23 18:45	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B85-3**

**Lab Sample ID: 500-233918-12**

**Date Collected: 05/16/23 10:50**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**Percent Solids: 80.8**

**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	0.00059	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
1,1,1,2-Tetrachloroethane	<0.0018	*3	0.0018	0.00056	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00075	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
1,1-Dichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
1,1-Dichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
1,2-Dichloropropane	<0.0018		0.0018	0.00045	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
2-Butanone (MEK)	<0.0044		0.0044	0.0019	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Acetone	<0.018		0.018	0.0076	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Bromoform	<0.0018		0.0018	0.00051	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Carbon disulfide	<0.0044		0.0044	0.00091	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Dibromochloromethane	<0.0018		0.0018	0.00057	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Ethylbenzene	<0.0018		0.0018	0.00084	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00051	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Toluene	<0.0018		0.0018	0.00044	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Trichloroethene	<0.0018		0.0018	0.00059	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	05/17/23 18:00	05/25/23 01:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 134	05/17/23 18:00	05/25/23 01:58	1
4-Bromofluorobenzene (Surr)	138	S1+ *3	75 - 131	05/17/23 18:00	05/25/23 01:58	1
Dibromofluoromethane	105		75 - 126	05/17/23 18:00	05/25/23 01:58	1
Toluene-d8 (Surr)	110		75 - 124	05/17/23 18:00	05/25/23 01:58	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		0.20	0.029	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
1,2-Dichlorobenzene	<0.20		0.20	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
1,3-Dichlorobenzene	<0.20		0.20	0.018	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
1,4-Dichlorobenzene	<0.20		0.20	0.019	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.029	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B85-3**

**Lab Sample ID: 500-233918-12**

**Date Collected: 05/16/23 10:50**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**Percent Solids: 80.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.015	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
2,4,6-Trichlorophenol	<0.40		0.40	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
2,4-Dichlorophenol	<0.40		0.40	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
2,4-Dimethylphenol	<0.40		0.40	0.090	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
2,4-Dinitrophenol	<0.81		0.81	0.23	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
2,4-Dinitrotoluene	<0.20		0.20	0.023	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
2,6-Dinitrotoluene	<0.20		0.20	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
2-Chloronaphthalene	<0.20		0.20	0.015	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
2-Chlorophenol	<0.20		0.20	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
2-Methylnaphthalene	<0.081		0.081	0.0080	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
2-Methylphenol	<0.20		0.20	0.021	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
2-Nitroaniline	<0.20		0.20	0.021	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
2-Nitrophenol	<0.40		0.40	0.027	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
3 & 4 Methylphenol	<0.20		0.20	0.029	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.033	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
3-Nitroaniline	<0.40		0.40	0.018	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.23	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.027	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
4-Chloro-3-methylphenol	<0.40		0.40	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
4-Chloroaniline	<0.81		0.81	0.42	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
4-Nitroaniline	<0.40		0.40	0.030	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
4-Nitrophenol	<0.81		0.81	0.15	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Acenaphthene	<0.040		0.040	0.0081	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Acenaphthylene	<0.040		0.040	0.0068	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Anthracene	<0.040		0.040	0.0082	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Benzo[a]anthracene	<0.040		0.040	0.0085	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Benzo[a]pyrene	<0.040		0.040	0.039	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Benzo[b]fluoranthene	<0.040		0.040	0.038	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
<b>Benzo[g,h,i]perylene</b>	<b>0.021</b>	<b>J</b>	0.040	0.0087	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Benzo[k]fluoranthene	<0.040		0.040	0.015	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.015	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.018	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.16	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Butyl benzyl phthalate	<0.20		0.20	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Carbazole	<0.20		0.20	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Dibenz(a,h)anthracene	<0.040		0.040	0.040	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Dibenzofuran	<0.20		0.20	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Diethyl phthalate	<0.20		0.20	0.018	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Dimethyl phthalate	<0.20		0.20	0.0087	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Di-n-butyl phthalate	<0.20		0.20	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Di-n-octyl phthalate	<0.40		0.40	0.28	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Fluoranthene	<0.040		0.040	0.0093	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Fluorene	<0.040		0.040	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Hexachlorobenzene	<0.081		0.081	0.0077	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Hexachlorobutadiene	<0.20		0.20	0.023	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Hexachlorocyclopentadiene	<0.81		0.81	0.42	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1
Hexachloroethane	<0.20		0.20	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 15:59	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B85-3**

**Lab Sample ID: 500-233918-12**

Date Collected: 05/16/23 10:50

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 80.8

**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	<0.040		0.040	0.039	mg/Kg	✳	05/25/23 10:24	06/04/23 15:59	1
Isophorone	<0.20		0.20	0.021	mg/Kg	✳	05/25/23 10:24	06/04/23 15:59	1
Naphthalene	<0.040		0.040	0.0072	mg/Kg	✳	05/25/23 10:24	06/04/23 15:59	1
Nitrobenzene	<0.040		0.040	0.013	mg/Kg	✳	05/25/23 10:24	06/04/23 15:59	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.0079	mg/Kg	✳	05/25/23 10:24	06/04/23 15:59	1
N-Nitrosodiphenylamine	<0.20		0.20	0.024	mg/Kg	✳	05/25/23 10:24	06/04/23 15:59	1
Pentachlorophenol	<0.81		0.81	0.10	mg/Kg	✳	05/25/23 10:24	06/04/23 15:59	1
Phenanthrene	<0.040		0.040	0.0087	mg/Kg	✳	05/25/23 10:24	06/04/23 15:59	1
Phenol	<0.20		0.20	0.017	mg/Kg	✳	05/25/23 10:24	06/04/23 15:59	1
<b>Pyrene</b>	<b>0.011</b>	<b>J</b>	0.040	0.011	mg/Kg	✳	05/25/23 10:24	06/04/23 15:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	61		31 - 166	05/25/23 10:24	06/04/23 15:59	1
Phenol-d5	62		30 - 153	05/25/23 10:24	06/04/23 15:59	1
Nitrobenzene-d5 (Surr)	63		37 - 147	05/25/23 10:24	06/04/23 15:59	1
2-Fluorobiphenyl	66		43 - 145	05/25/23 10:24	06/04/23 15:59	1
2,4,6-Tribromophenol	55		31 - 143	05/25/23 10:24	06/04/23 15:59	1
Terphenyl-d14 (Surr)	71		42 - 157	05/25/23 10:24	06/04/23 15:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.48</b>	<b>J</b>	1.2	0.24	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
<b>Arsenic</b>	<b>9.2</b>		0.61	0.21	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
<b>Barium</b>	<b>18</b>		0.61	0.070	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
<b>Beryllium</b>	<b>0.50</b>		0.25	0.057	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
<b>Boron</b>	<b>7.2</b>		3.1	0.29	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
<b>Cadmium</b>	<b>0.13</b>	<b>B</b>	0.12	0.022	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
<b>Calcium</b>	<b>74000</b>	<b>B</b>	61	10	mg/Kg	✳	05/23/23 15:04	05/31/23 18:42	5
<b>Chromium</b>	<b>7.9</b>		0.61	0.30	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
<b>Cobalt</b>	<b>9.2</b>		0.31	0.080	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
<b>Copper</b>	<b>22</b>		0.61	0.17	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
<b>Iron</b>	<b>16000</b>	<b>B</b>	12	6.4	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
<b>Lead</b>	<b>13</b>		0.31	0.14	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
<b>Magnesium</b>	<b>32000</b>	<b>B</b>	6.1	3.0	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
<b>Manganese</b>	<b>400</b>		0.61	0.089	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
<b>Nickel</b>	<b>21</b>		0.61	0.18	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
<b>Potassium</b>	<b>1300</b>		31	11	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
<b>Selenium</b>	<b>0.37</b>	<b>J</b>	0.61	0.36	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
<b>Silver</b>	<b>0.14</b>	<b>J</b>	0.31	0.079	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
<b>Sodium</b>	<b>140</b>		61	9.1	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
Thallium	<0.61		0.61	0.31	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
<b>Vanadium</b>	<b>10</b>		0.31	0.072	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1
<b>Zinc</b>	<b>50</b>		1.2	0.54	mg/Kg	✳	05/23/23 15:04	05/30/23 16:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		05/25/23 17:13	06/02/23 00:49	1
Barium	<0.50		0.50	0.050	mg/L		05/25/23 17:13	06/02/23 00:49	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/25/23 17:13	06/02/23 00:49	1
<b>Boron</b>	<b>0.062</b>	<b>J</b>	0.10	0.050	mg/L		05/25/23 17:13	06/02/23 00:49	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B85-3**

**Lab Sample ID: 500-233918-12**

Date Collected: 05/16/23 10:50

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 80.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/25/23 17:13	06/02/23 00:49	1
<b>Calcium</b>	<b>17</b>		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 00:49	1
Chromium	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:49	1
Cobalt	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:49	1
<b>Iron</b>	<b>2.0</b>		0.40	0.20	mg/L		05/25/23 17:13	06/02/23 00:49	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/25/23 17:13	06/02/23 00:49	1
<b>Manganese</b>	<b>0.031</b>		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:49	1
Nickel	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:49	1
<b>Potassium</b>	<b>2.8</b>		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 00:49	1
Selenium	<0.050		0.050	0.020	mg/L		05/25/23 17:13	06/02/23 00:49	1
Silver	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 00:49	1
Zinc	<0.50		0.50	0.020	mg/L		05/25/23 17:13	06/02/23 00:49	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		05/25/23 17:13	06/01/23 22:13	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/25/23 17:13	06/01/23 22:13	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		05/30/23 10:40	05/31/23 10:40	1

**Method: SW846 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.018</b>	<b>J</b>	0.020	0.011	mg/Kg	☼	05/30/23 14:40	05/31/23 07:30	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	☼	05/24/23 08:08	05/24/23 11:08	1
<b>pH (SW846 9045D)</b>	<b>8.1</b>		0.2	0.2	SU			05/23/23 18:47	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B85-3 Dup**

**Lab Sample ID: 500-233918-13**

**Date Collected: 05/16/23 11:00**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**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	<0.0020		0.0020	0.00068	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
1,1,1,2-Tetrachloroethane	<0.0020	*3	0.0020	0.00065	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00087	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
1,1-Dichloroethane	<0.0020		0.0020	0.00070	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
1,1-Dichloroethene	<0.0020		0.0020	0.00070	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
1,2-Dichloroethane	<0.0051		0.0051	0.0016	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
1,2-Dichloropropane	<0.0020		0.0020	0.00053	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00071	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
2-Butanone (MEK)	<0.0051		0.0051	0.0023	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
2-Hexanone	<0.0051		0.0051	0.0016	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
4-Methyl-2-pentanone (MIBK)	<0.0051		0.0051	0.0015	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Acetone	<0.020		0.020	0.0089	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Benzene	<0.0020		0.0020	0.00052	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Bromoform	<0.0020		0.0020	0.00059	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Bromomethane	<0.0051		0.0051	0.0019	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Carbon disulfide	<0.0051		0.0051	0.0011	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Carbon tetrachloride	<0.0020		0.0020	0.00059	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Chlorobenzene	<0.0020		0.0020	0.00075	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Chloroethane	<0.0051		0.0051	0.0015	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Chloroform	<0.0020		0.0020	0.00071	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Chloromethane	<0.0051		0.0051	0.0020	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00057	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00061	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Dibromochloromethane	<0.0020		0.0020	0.00067	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Ethylbenzene	<0.0020		0.0020	0.00097	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00060	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Methylene Chloride	<0.0051		0.0051	0.0020	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Styrene	<0.0020		0.0020	0.00061	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Tetrachloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00090	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00071	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Trichloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Vinyl chloride	<0.0020		0.0020	0.00090	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1
Xylenes, Total	<0.0041		0.0041	0.00065	mg/Kg	☼	05/17/23 18:00	05/25/23 02:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 134	05/17/23 18:00	05/25/23 02:24	1
4-Bromofluorobenzene (Surr)	156	S1+ *3	75 - 131	05/17/23 18:00	05/25/23 02:24	1
Dibromofluoromethane	103		75 - 126	05/17/23 18:00	05/25/23 02:24	1
Toluene-d8 (Surr)	113		75 - 124	05/17/23 18:00	05/25/23 02:24	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	☼	05/25/23 10:24	06/04/23 18:51	1
1,2-Dichlorobenzene	<0.20		0.20	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
1,3-Dichlorobenzene	<0.20		0.20	0.018	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
1,4-Dichlorobenzene	<0.20		0.20	0.019	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.028	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B85-3 Dup**

**Lab Sample ID: 500-233918-13**

**Date Collected: 05/16/23 11:00**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**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	☼	05/25/23 10:24	06/04/23 18:51	1
2,4,6-Trichlorophenol	<0.39		0.39	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
2,4-Dichlorophenol	<0.39		0.39	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
2,4-Dimethylphenol	<0.39		0.39	0.088	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
2,4-Dinitrophenol	<0.80		0.80	0.23	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
2,4-Dinitrotoluene	<0.20		0.20	0.023	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
2,6-Dinitrotoluene	<0.20		0.20	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
2-Chloronaphthalene	<0.20		0.20	0.015	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
2-Chlorophenol	<0.20		0.20	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
2-Methylnaphthalene	<0.080		0.080	0.0079	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
2-Methylphenol	<0.20		0.20	0.021	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
2-Nitroaniline	<0.20		0.20	0.021	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
2-Nitrophenol	<0.39		0.39	0.027	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
3 & 4 Methylphenol	<0.20		0.20	0.029	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.032	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
3-Nitroaniline	<0.39		0.39	0.018	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.22	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.027	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
4-Chloro-3-methylphenol	<0.39		0.39	0.015	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
4-Chloroaniline	<0.80		0.80	0.41	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
4-Nitroaniline	<0.39		0.39	0.029	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
4-Nitrophenol	<0.80		0.80	0.15	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Acenaphthene	<0.039		0.039	0.0080	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Acenaphthylene	<0.039		0.039	0.0067	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Anthracene	<0.039		0.039	0.0081	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Benzo[a]anthracene	<0.039		0.039	0.0084	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Benzo[a]pyrene	<0.039		0.039	0.038	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Benzo[b]fluoranthene	<0.039		0.039	0.038	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
<b>Benzo[g,h,i]perylene</b>	<b>0.033</b>	<b>J</b>	0.039	0.0086	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Benzo[k]fluoranthene	<0.039		0.039	0.015	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.015	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.018	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.15	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Butyl benzyl phthalate	<0.20		0.20	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Carbazole	<0.20		0.20	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
<b>Chrysene</b>	<b>0.031</b>	<b>J</b>	0.039	0.010	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Dibenz(a,h)anthracene	<0.039		0.039	0.039	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Dibenzofuran	<0.20		0.20	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Diethyl phthalate	<0.20		0.20	0.018	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Dimethyl phthalate	<0.20		0.20	0.0086	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Di-n-butyl phthalate	<0.20		0.20	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Di-n-octyl phthalate	<0.39		0.39	0.28	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
<b>Fluoranthene</b>	<b>0.012</b>	<b>J</b>	0.039	0.0092	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Fluorene	<0.039		0.039	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Hexachlorobenzene	<0.080		0.080	0.0076	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Hexachlorobutadiene	<0.20		0.20	0.022	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Hexachlorocyclopentadiene	<0.80		0.80	0.42	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1
Hexachloroethane	<0.20		0.20	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 18:51	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B85-3 Dup**

**Lab Sample ID: 500-233918-13**

**Date Collected: 05/16/23 11:00**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**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		0.039	0.038	mg/Kg	✳	05/25/23 10:24	06/04/23 18:51	1
Isophorone	<0.20		0.20	0.020	mg/Kg	✳	05/25/23 10:24	06/04/23 18:51	1
Naphthalene	<0.039		0.039	0.0071	mg/Kg	✳	05/25/23 10:24	06/04/23 18:51	1
Nitrobenzene	<0.039		0.039	0.013	mg/Kg	✳	05/25/23 10:24	06/04/23 18:51	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.0078	mg/Kg	✳	05/25/23 10:24	06/04/23 18:51	1
N-Nitrosodiphenylamine	<0.20		0.20	0.023	mg/Kg	✳	05/25/23 10:24	06/04/23 18:51	1
Pentachlorophenol	<0.80		0.80	0.099	mg/Kg	✳	05/25/23 10:24	06/04/23 18:51	1
<b>Phenanthrene</b>	<b>0.020</b>	<b>J</b>	0.039	0.0086	mg/Kg	✳	05/25/23 10:24	06/04/23 18:51	1
Phenol	<0.20		0.20	0.017	mg/Kg	✳	05/25/23 10:24	06/04/23 18:51	1
<b>Pyrene</b>	<b>0.019</b>	<b>J</b>	0.039	0.011	mg/Kg	✳	05/25/23 10:24	06/04/23 18:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	78		31 - 166	05/25/23 10:24	06/04/23 18:51	1
Phenol-d5	78		30 - 153	05/25/23 10:24	06/04/23 18:51	1
Nitrobenzene-d5 (Surr)	77		37 - 147	05/25/23 10:24	06/04/23 18:51	1
2-Fluorobiphenyl	81		43 - 145	05/25/23 10:24	06/04/23 18:51	1
2,4,6-Tribromophenol	63		31 - 143	05/25/23 10:24	06/04/23 18:51	1
Terphenyl-d14 (Surr)	87		42 - 157	05/25/23 10:24	06/04/23 18:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.47</b>	<b>J</b>	1.2	0.23	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
<b>Arsenic</b>	<b>9.1</b>		0.59	0.20	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
<b>Barium</b>	<b>23</b>		0.59	0.068	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
<b>Beryllium</b>	<b>0.62</b>		0.24	0.056	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
<b>Boron</b>	<b>9.1</b>		3.0	0.28	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
<b>Cadmium</b>	<b>0.15</b>	<b>B</b>	0.12	0.021	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
<b>Calcium</b>	<b>63000</b>	<b>B</b>	59	10	mg/Kg	✳	05/23/23 15:04	05/31/23 18:51	5
<b>Chromium</b>	<b>10</b>		0.59	0.29	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
<b>Cobalt</b>	<b>11</b>		0.30	0.078	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
<b>Copper</b>	<b>22</b>		0.59	0.17	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
<b>Iron</b>	<b>18000</b>	<b>B</b>	12	6.2	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
<b>Lead</b>	<b>13</b>		0.30	0.14	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
<b>Magnesium</b>	<b>26000</b>	<b>B</b>	5.9	3.0	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
<b>Manganese</b>	<b>390</b>		0.59	0.086	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
<b>Nickel</b>	<b>25</b>		0.59	0.17	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
<b>Potassium</b>	<b>1800</b>		30	11	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
<b>Selenium</b>	<b>0.59</b>		0.59	0.35	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
<b>Silver</b>	<b>0.16</b>	<b>J</b>	0.30	0.077	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
<b>Sodium</b>	<b>160</b>		59	8.8	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
Thallium	<0.59		0.59	0.30	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
<b>Vanadium</b>	<b>14</b>		0.30	0.070	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1
<b>Zinc</b>	<b>51</b>		1.2	0.52	mg/Kg	✳	05/23/23 15:04	05/30/23 16:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		05/25/23 17:13	06/02/23 01:00	1
Barium	<0.50		0.50	0.050	mg/L		05/25/23 17:13	06/02/23 01:00	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/25/23 17:13	06/02/23 01:00	1
Boron	<0.10		0.10	0.050	mg/L		05/25/23 17:13	06/02/23 01:00	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B85-3 Dup**

**Lab Sample ID: 500-233918-13**

Date Collected: 05/16/23 11:00

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 83.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/25/23 17:13	06/02/23 01:00	1
<b>Calcium</b>	<b>18</b>		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 01:00	1
Chromium	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:00	1
Cobalt	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:00	1
<b>Iron</b>	<b>1.2</b>		0.40	0.20	mg/L		05/25/23 17:13	06/02/23 01:00	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/25/23 17:13	06/02/23 01:00	1
<b>Manganese</b>	<b>0.026</b>		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:00	1
Nickel	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:00	1
<b>Potassium</b>	<b>2.3 J</b>		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 01:00	1
Selenium	<0.050		0.050	0.020	mg/L		05/25/23 17:13	06/02/23 01:00	1
Silver	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:00	1
Zinc	<0.50		0.50	0.020	mg/L		05/25/23 17:13	06/02/23 01:00	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		05/25/23 17:13	06/01/23 22:15	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/25/23 17:13	06/01/23 22:15	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		05/30/23 10:40	05/31/23 10:42	1

**Method: SW846 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.017 J</b>		0.018	0.0098	mg/Kg	⊛	05/30/23 14:40	05/31/23 07:36	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	⊛	05/24/23 08:09	05/24/23 11:10	1
<b>pH (SW846 9045D)</b>	<b>8.2</b>		0.2	0.2	SU			05/23/23 18:52	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B80-1**

**Lab Sample ID: 500-233918-18**

**Date Collected: 05/16/23 11:50**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**Percent Solids: 87.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0024		0.0024	0.00079	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
1,1,2,2-Tetrachloroethane	<0.0024		0.0024	0.00075	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
1,1,2-Trichloroethane	<0.0024		0.0024	0.0010	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
1,1-Dichloroethane	<0.0024		0.0024	0.00081	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
1,1-Dichloroethene	<0.0024		0.0024	0.00081	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
1,2-Dichloroethane	<0.0059		0.0059	0.0018	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
1,2-Dichloropropane	<0.0024		0.0024	0.00061	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
1,3-Dichloropropene, Total	<0.0024		0.0024	0.00083	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
2-Butanone (MEK)	<0.0059		0.0059	0.0026	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
2-Hexanone	<0.0059		0.0059	0.0018	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
4-Methyl-2-pentanone (MIBK)	<0.0059		0.0059	0.0017	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Acetone	<0.024		0.024	0.010	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Benzene	<0.0024		0.0024	0.00060	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Bromodichloromethane	<0.0024		0.0024	0.00048	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Bromoform	<0.0024		0.0024	0.00069	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Bromomethane	<0.0059		0.0059	0.0022	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Carbon disulfide	<0.0059		0.0059	0.0012	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Carbon tetrachloride	<0.0024		0.0024	0.00068	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Chlorobenzene	<0.0024		0.0024	0.00087	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Chloroethane	<0.0059		0.0059	0.0017	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Chloroform	<0.0024		0.0024	0.00082	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Chloromethane	<0.0059		0.0059	0.0024	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
cis-1,2-Dichloroethene	<0.0024		0.0024	0.00066	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
cis-1,3-Dichloropropene	<0.0024		0.0024	0.00071	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Dibromochloromethane	<0.0024		0.0024	0.00077	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Ethylbenzene	<0.0024		0.0024	0.0011	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Methyl tert-butyl ether	<0.0024		0.0024	0.00069	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Methylene Chloride	<0.0059		0.0059	0.0023	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Styrene	<0.0024		0.0024	0.00071	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Tetrachloroethene	<0.0024		0.0024	0.00080	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Toluene	<0.0024		0.0024	0.00060	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
trans-1,2-Dichloroethene	<0.0024		0.0024	0.0010	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
trans-1,3-Dichloropropene	<0.0024		0.0024	0.00083	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Trichloroethene	<0.0024		0.0024	0.00080	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Vinyl chloride	<0.0024		0.0024	0.0010	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1
Xylenes, Total	<0.0047		0.0047	0.00075	mg/Kg	☼	05/17/23 18:00	05/25/23 04:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		70 - 134	05/17/23 18:00	05/25/23 04:31	1
4-Bromofluorobenzene (Surr)	107		75 - 131	05/17/23 18:00	05/25/23 04:31	1
Dibromofluoromethane	98		75 - 126	05/17/23 18:00	05/25/23 04:31	1
Toluene-d8 (Surr)	95		75 - 124	05/17/23 18:00	05/25/23 04:31	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	☼	05/25/23 10:24	06/04/23 17:38	1
1,2-Dichlorobenzene	<0.19		0.19	0.015	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
1,3-Dichlorobenzene	<0.19		0.19	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
1,4-Dichlorobenzene	<0.19		0.19	0.018	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.027	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B80-1**

**Lab Sample ID: 500-233918-18**

Date Collected: 05/16/23 11:50

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 87.7

**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	☼	05/25/23 10:24	06/04/23 17:38	1
2,4,6-Trichlorophenol	<0.37		0.37	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
2,4-Dichlorophenol	<0.37		0.37	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
2,4-Dimethylphenol	<0.37		0.37	0.083	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
2,4-Dinitrophenol	<0.75		0.75	0.22	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
2,4-Dinitrotoluene	<0.19		0.19	0.021	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
2,6-Dinitrotoluene	<0.19		0.19	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
2-Chloronaphthalene	<0.19		0.19	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
2-Chlorophenol	<0.19		0.19	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
<b>2-Methylnaphthalene</b>	<b>0.017</b>	<b>J</b>	0.075	0.0075	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
2-Methylphenol	<0.19		0.19	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
2-Nitroaniline	<0.19		0.19	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
2-Nitrophenol	<0.37		0.37	0.025	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
3 & 4 Methylphenol	<0.19		0.19	0.027	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.030	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
3-Nitroaniline	<0.37		0.37	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.21	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.025	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
4-Chloro-3-methylphenol	<0.37		0.37	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
4-Chloroaniline	<0.75		0.75	0.39	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
4-Nitroaniline	<0.37		0.37	0.027	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
4-Nitrophenol	<0.75		0.75	0.14	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Acenaphthene	<0.037		0.037	0.0076	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Acenaphthylene	<0.037		0.037	0.0063	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Anthracene	<0.037		0.037	0.0076	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
<b>Benzo[a]anthracene</b>	<b>0.019</b>	<b>J</b>	0.037	0.0079	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Benzo[a]pyrene	<0.037		0.037	0.036	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Benzo[b]fluoranthene	<0.037		0.037	0.035	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
<b>Benzo[g,h,i]perylene</b>	<b>0.018</b>	<b>J</b>	0.037	0.0081	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Benzo[k]fluoranthene	<0.037		0.037	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.15	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Butyl benzyl phthalate	<0.19		0.19	0.019	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Carbazole	<0.19		0.19	0.015	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
<b>Chrysene</b>	<b>0.022</b>	<b>J</b>	0.037	0.0098	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Dibenz(a,h)anthracene	<0.037		0.037	0.037	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Dibenzofuran	<0.19		0.19	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Diethyl phthalate	<0.19		0.19	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Dimethyl phthalate	<0.19		0.19	0.0081	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Di-n-butyl phthalate	<0.19		0.19	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Di-n-octyl phthalate	<0.37		0.37	0.26	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
<b>Fluoranthene</b>	<b>0.026</b>	<b>J</b>	0.037	0.0086	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Fluorene	<0.037		0.037	0.011	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Hexachlorobenzene	<0.075		0.075	0.0071	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Hexachlorobutadiene	<0.19		0.19	0.021	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Hexachlorocyclopentadiene	<0.75		0.75	0.39	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1
Hexachloroethane	<0.19		0.19	0.019	mg/Kg	☼	05/25/23 10:24	06/04/23 17:38	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B80-1**

**Lab Sample ID: 500-233918-18**

Date Collected: 05/16/23 11:50

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 87.7

**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	✳	05/25/23 10:24	06/04/23 17:38	1
Isophorone	<0.19		0.19	0.019	mg/Kg	✳	05/25/23 10:24	06/04/23 17:38	1
<b>Naphthalene</b>	<b>0.012</b>	<b>J</b>	0.037	0.0067	mg/Kg	✳	05/25/23 10:24	06/04/23 17:38	1
Nitrobenzene	<0.037		0.037	0.012	mg/Kg	✳	05/25/23 10:24	06/04/23 17:38	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.0073	mg/Kg	✳	05/25/23 10:24	06/04/23 17:38	1
N-Nitrosodiphenylamine	<0.19		0.19	0.022	mg/Kg	✳	05/25/23 10:24	06/04/23 17:38	1
Pentachlorophenol	<0.75		0.75	0.093	mg/Kg	✳	05/25/23 10:24	06/04/23 17:38	1
<b>Phenanthrene</b>	<b>0.032</b>	<b>J</b>	0.037	0.0081	mg/Kg	✳	05/25/23 10:24	06/04/23 17:38	1
Phenol	<0.19		0.19	0.016	mg/Kg	✳	05/25/23 10:24	06/04/23 17:38	1
<b>Pyrene</b>	<b>0.023</b>	<b>J</b>	0.037	0.010	mg/Kg	✳	05/25/23 10:24	06/04/23 17:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	77		31 - 166				05/25/23 10:24	06/04/23 17:38	1
Phenol-d5	77		30 - 153				05/25/23 10:24	06/04/23 17:38	1
Nitrobenzene-d5 (Surr)	78		37 - 147				05/25/23 10:24	06/04/23 17:38	1
2-Fluorobiphenyl	81		43 - 145				05/25/23 10:24	06/04/23 17:38	1
2,4,6-Tribromophenol	81		31 - 143				05/25/23 10:24	06/04/23 17:38	1
Terphenyl-d14 (Surr)	84		42 - 157				05/25/23 10:24	06/04/23 17:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.63</b>	<b>J</b>	1.1	0.22	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
<b>Arsenic</b>	<b>8.8</b>		0.55	0.19	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
<b>Barium</b>	<b>27</b>		0.55	0.063	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
<b>Beryllium</b>	<b>0.59</b>		0.22	0.052	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
<b>Boron</b>	<b>9.0</b>		2.8	0.26	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
<b>Cadmium</b>	<b>0.15</b>	<b>B</b>	0.11	0.020	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
<b>Calcium</b>	<b>64000</b>	<b>B</b>	55	9.4	mg/Kg	✳	05/23/23 15:04	05/31/23 19:00	5
<b>Chromium</b>	<b>8.9</b>		0.55	0.27	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
<b>Cobalt</b>	<b>9.5</b>		0.28	0.073	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
<b>Copper</b>	<b>20</b>		0.55	0.15	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
<b>Iron</b>	<b>16000</b>	<b>B</b>	11	5.8	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
<b>Lead</b>	<b>15</b>		0.28	0.13	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
<b>Magnesium</b>	<b>31000</b>	<b>B</b>	5.5	2.7	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
<b>Manganese</b>	<b>350</b>		0.55	0.080	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
<b>Nickel</b>	<b>21</b>		0.55	0.16	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
<b>Potassium</b>	<b>1300</b>		28	9.8	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
<b>Selenium</b>	<b>0.47</b>	<b>J</b>	0.55	0.33	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
<b>Silver</b>	<b>0.20</b>	<b>J</b>	0.28	0.071	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
<b>Sodium</b>	<b>1500</b>		55	8.2	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
Thallium	<0.55		0.55	0.28	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
<b>Vanadium</b>	<b>15</b>		0.28	0.065	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1
<b>Zinc</b>	<b>57</b>		1.1	0.49	mg/Kg	✳	05/23/23 15:04	05/30/23 16:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.011</b>	<b>J</b>	0.050	0.010	mg/L		05/25/23 17:13	05/31/23 23:11	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/25/23 17:13	05/31/23 23:11	1
Chromium	<0.025		0.025	0.010	mg/L		05/25/23 17:13	05/31/23 23:11	1
Iron	<0.40		0.40	0.20	mg/L		05/25/23 17:13	05/31/23 23:11	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B80-1**

**Lab Sample ID: 500-233918-18**

Date Collected: 05/16/23 11:50

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 87.7

**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		05/25/23 17:13	05/31/23 23:11	1
Manganese	6.3		0.025	0.010	mg/L		05/25/23 17:13	05/31/23 23:11	1
Nickel	0.025		0.025	0.010	mg/L		05/25/23 17:13	05/31/23 23:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.086		0.050	0.010	mg/L		05/25/23 17:13	06/02/23 01:17	1
Barium	0.39	J	0.50	0.050	mg/L		05/25/23 17:13	06/02/23 01:17	1
Beryllium	0.0082		0.0040	0.0040	mg/L		05/25/23 17:13	06/02/23 01:17	1
Boron	0.17		0.10	0.050	mg/L		05/25/23 17:13	06/02/23 01:17	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/25/23 17:13	06/02/23 01:17	1
Calcium	24		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 01:17	1
Chromium	0.14		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:17	1
Cobalt	0.063		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:17	1
Iron	170		0.40	0.20	mg/L		05/25/23 17:13	06/02/23 01:17	1
Lead	0.13		0.0075	0.0075	mg/L		05/25/23 17:13	06/02/23 01:17	1
Manganese	1.4		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:17	1
Nickel	0.19		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:17	1
Potassium	30		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 01:17	1
Selenium	<0.050		0.050	0.020	mg/L		05/25/23 17:13	06/02/23 01:17	1
Silver	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:17	1
Zinc	0.66		0.50	0.020	mg/L		05/25/23 17:13	06/02/23 01:17	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		05/25/23 17:13	06/06/23 16:22	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		05/25/23 17:13	06/01/23 22:25	1
Thallium	0.0044		0.0020	0.0020	mg/L		05/25/23 17:13	06/01/23 22:25	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		05/30/23 10:40	05/31/23 10:52	1

**Method: SW846 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.029		0.018	0.0094	mg/Kg	✱	05/30/23 14:40	05/31/23 07:45	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.27	F1	0.27	0.14	mg/Kg	✱	05/24/23 08:14	05/24/23 11:17	1
pH (SW846 9045D)	8.5		0.2	0.2	SU			05/23/23 19:07	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B80-2**

**Lab Sample ID: 500-233918-19**

**Date Collected: 05/16/23 12:00**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**Percent Solids: 91.3**

**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	☼	05/17/23 18:00	05/25/23 04:57	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00061	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00082	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
1,1-Dichloroethane	<0.0019		0.0019	0.00066	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
1,1-Dichloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00067	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
2-Butanone (MEK)	<0.0048		0.0048	0.0021	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Acetone	<0.019		0.019	0.0084	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Bromoform	<0.0019		0.0019	0.00056	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Carbon disulfide	<0.0048		0.0048	0.0010	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Chlorobenzene	<0.0019		0.0019	0.00071	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Chloroethane	<0.0048		0.0048	0.0014	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Chloroform	<0.0019		0.0019	0.00067	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00058	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Ethylbenzene	<0.0019		0.0019	0.00092	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00056	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Styrene	<0.0019		0.0019	0.00058	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Tetrachloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Toluene	<0.0019		0.0019	0.00048	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00085	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00067	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Trichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Vinyl chloride	<0.0019		0.0019	0.00085	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1
Xylenes, Total	<0.0038		0.0038	0.00061	mg/Kg	☼	05/17/23 18:00	05/25/23 04:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		70 - 134	05/17/23 18:00	05/25/23 04:57	1
4-Bromofluorobenzene (Surr)	103		75 - 131	05/17/23 18:00	05/25/23 04:57	1
Dibromofluoromethane	106		75 - 126	05/17/23 18:00	05/25/23 04:57	1
Toluene-d8 (Surr)	90		75 - 124	05/17/23 18:00	05/25/23 04:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.17		0.17	0.025	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
1,2-Dichlorobenzene	<0.17		0.17	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
1,3-Dichlorobenzene	<0.17		0.17	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
1,4-Dichlorobenzene	<0.17		0.17	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.025	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B80-2**

**Lab Sample ID: 500-233918-19**

**Date Collected: 05/16/23 12:00**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**Percent Solids: 91.3**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.35		0.35	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
2,4,6-Trichlorophenol	<0.35		0.35	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
2,4-Dichlorophenol	<0.35		0.35	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
2,4-Dimethylphenol	<0.35		0.35	0.078	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
2,4-Dinitrophenol	<0.70		0.70	0.20	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
2,4-Dinitrotoluene	<0.17		0.17	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
2,6-Dinitrotoluene	<0.17		0.17	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
2-Chloronaphthalene	<0.17		0.17	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
2-Chlorophenol	<0.17		0.17	0.011	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
2-Methylnaphthalene	<0.070		0.070	0.0070	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
2-Methylphenol	<0.17		0.17	0.018	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
2-Nitroaniline	<0.17		0.17	0.019	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
2-Nitrophenol	<0.35		0.35	0.024	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
3 & 4 Methylphenol	<0.17		0.17	0.025	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.028	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
3-Nitroaniline	<0.35		0.35	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
4,6-Dinitro-2-methylphenol	<0.70		0.70	0.20	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.024	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
4-Chloro-3-methylphenol	<0.35		0.35	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
4-Chloroaniline	<0.70		0.70	0.36	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.045	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
4-Nitroaniline	<0.35		0.35	0.026	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
4-Nitrophenol	<0.70		0.70	0.13	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Acenaphthene	<0.035		0.035	0.0071	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Acenaphthylene	<0.035		0.035	0.0059	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Anthracene	<0.035		0.035	0.0071	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Benzo[a]anthracene	<0.035		0.035	0.0074	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Benzo[a]pyrene	<0.035		0.035	0.033	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Benzo[b]fluoranthene	<0.035		0.035	0.033	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
<b>Benzo[g,h,i]perylene</b>	<b>0.015</b>	<b>J</b>	0.035	0.0075	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Benzo[k]fluoranthene	<0.035		0.035	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.14	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Butyl benzyl phthalate	<0.17		0.17	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Carbazole	<0.17		0.17	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Chrysene	<0.035		0.035	0.0091	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Dibenz(a,h)anthracene	<0.035		0.035	0.035	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Dibenzofuran	<0.17		0.17	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Diethyl phthalate	<0.17		0.17	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Dimethyl phthalate	<0.17		0.17	0.0075	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Di-n-butyl phthalate	<0.17		0.17	0.011	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Di-n-octyl phthalate	<0.35		0.35	0.24	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Fluoranthene	<0.035		0.035	0.0081	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Fluorene	<0.035		0.035	0.010	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Hexachlorobenzene	<0.070		0.070	0.0067	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Hexachlorobutadiene	<0.17		0.17	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Hexachlorocyclopentadiene	<0.70		0.70	0.37	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1
Hexachloroethane	<0.17		0.17	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 18:03	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B80-2**

**Lab Sample ID: 500-233918-19**

Date Collected: 05/16/23 12:00

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 91.3

**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	<0.035		0.035	0.034	mg/Kg	✳	05/25/23 10:24	06/04/23 18:03	1
Isophorone	<0.17		0.17	0.018	mg/Kg	✳	05/25/23 10:24	06/04/23 18:03	1
Naphthalene	<0.035		0.035	0.0063	mg/Kg	✳	05/25/23 10:24	06/04/23 18:03	1
Nitrobenzene	<0.035		0.035	0.011	mg/Kg	✳	05/25/23 10:24	06/04/23 18:03	1
N-Nitrosodi-n-propylamine	<0.070		0.070	0.0068	mg/Kg	✳	05/25/23 10:24	06/04/23 18:03	1
N-Nitrosodiphenylamine	<0.17		0.17	0.021	mg/Kg	✳	05/25/23 10:24	06/04/23 18:03	1
Pentachlorophenol	<0.70		0.70	0.087	mg/Kg	✳	05/25/23 10:24	06/04/23 18:03	1
<b>Phenanthrene</b>	<b>0.0091</b>	<b>J</b>	0.035	0.0075	mg/Kg	✳	05/25/23 10:24	06/04/23 18:03	1
Phenol	<0.17		0.17	0.015	mg/Kg	✳	05/25/23 10:24	06/04/23 18:03	1
Pyrene	<0.035		0.035	0.0095	mg/Kg	✳	05/25/23 10:24	06/04/23 18:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	75		31 - 166	05/25/23 10:24	06/04/23 18:03	1
Phenol-d5	76		30 - 153	05/25/23 10:24	06/04/23 18:03	1
Nitrobenzene-d5 (Surr)	78		37 - 147	05/25/23 10:24	06/04/23 18:03	1
2-Fluorobiphenyl	80		43 - 145	05/25/23 10:24	06/04/23 18:03	1
2,4,6-Tribromophenol	73		31 - 143	05/25/23 10:24	06/04/23 18:03	1
Terphenyl-d14 (Surr)	84		42 - 157	05/25/23 10:24	06/04/23 18:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.47</b>	<b>J</b>	1.1	0.21	mg/Kg	✳	05/23/23 15:04	05/30/23 17:36	1
<b>Arsenic</b>	<b>11</b>		0.54	0.19	mg/Kg	✳	05/23/23 15:04	05/30/23 17:36	1
<b>Barium</b>	<b>12</b>		2.7	0.31	mg/Kg	✳	05/23/23 15:04	05/31/23 19:04	5
<b>Beryllium</b>	<b>0.41</b>		0.22	0.051	mg/Kg	✳	05/23/23 15:04	05/30/23 17:36	1
<b>Boron</b>	<b>6.9</b>		2.7	0.25	mg/Kg	✳	05/23/23 15:04	05/30/23 17:36	1
<b>Cadmium</b>	<b>0.23</b>	<b>B</b>	0.11	0.020	mg/Kg	✳	05/23/23 15:04	05/30/23 17:36	1
<b>Calcium</b>	<b>99000</b>	<b>B</b>	54	9.2	mg/Kg	✳	05/23/23 15:04	05/31/23 19:04	5
<b>Chromium</b>	<b>5.7</b>		0.54	0.27	mg/Kg	✳	05/23/23 15:04	05/30/23 17:36	1
<b>Cobalt</b>	<b>7.5</b>		0.27	0.071	mg/Kg	✳	05/23/23 15:04	05/30/23 17:36	1
<b>Copper</b>	<b>22</b>		0.54	0.15	mg/Kg	✳	05/23/23 15:04	05/30/23 17:36	1
<b>Iron</b>	<b>16000</b>		54	28	mg/Kg	✳	05/23/23 15:04	05/31/23 19:04	5
<b>Lead</b>	<b>11</b>		0.27	0.13	mg/Kg	✳	05/23/23 15:04	05/30/23 17:36	1
<b>Magnesium</b>	<b>52000</b>	<b>B</b>	27	13	mg/Kg	✳	05/23/23 15:04	05/31/23 19:04	5
<b>Manganese</b>	<b>400</b>		0.54	0.079	mg/Kg	✳	05/23/23 15:04	05/30/23 17:36	1
<b>Nickel</b>	<b>16</b>		0.54	0.16	mg/Kg	✳	05/23/23 15:04	05/30/23 17:36	1
<b>Potassium</b>	<b>1000</b>		27	9.6	mg/Kg	✳	05/23/23 15:04	05/30/23 17:36	1
Selenium	<0.54		0.54	0.32	mg/Kg	✳	05/23/23 15:04	05/30/23 17:36	1
Silver	<0.27		0.27	0.070	mg/Kg	✳	05/23/23 15:04	05/30/23 17:36	1
<b>Sodium</b>	<b>450</b>		54	8.0	mg/Kg	✳	05/23/23 15:04	05/30/23 17:36	1
Thallium	<0.54		0.54	0.27	mg/Kg	✳	05/23/23 15:04	05/30/23 17:36	1
<b>Vanadium</b>	<b>8.1</b>		0.27	0.064	mg/Kg	✳	05/23/23 15:04	05/30/23 17:36	1
<b>Zinc</b>	<b>67</b>		1.1	0.48	mg/Kg	✳	05/23/23 15:04	05/30/23 17:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		05/25/23 17:13	06/02/23 01:21	1
Barium	<0.50		0.50	0.050	mg/L		05/25/23 17:13	06/02/23 01:21	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/25/23 17:13	06/02/23 01:21	1
<b>Boron</b>	<b>0.074</b>	<b>J</b>	0.10	0.050	mg/L		05/25/23 17:13	06/02/23 01:21	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B80-2**

**Lab Sample ID: 500-233918-19**

Date Collected: 05/16/23 12:00

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 91.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/25/23 17:13	06/02/23 01:21	1
<b>Calcium</b>	<b>15</b>		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 01:21	1
Chromium	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:21	1
Cobalt	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:21	1
<b>Iron</b>	<b>0.63</b>		0.40	0.20	mg/L		05/25/23 17:13	06/02/23 01:21	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/25/23 17:13	06/02/23 01:21	1
<b>Manganese</b>	<b>0.022</b>	<b>J</b>	0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:21	1
Nickel	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:21	1
<b>Potassium</b>	<b>0.85</b>	<b>J</b>	2.5	0.50	mg/L		05/25/23 17:13	06/02/23 01:21	1
Selenium	<0.050		0.050	0.020	mg/L		05/25/23 17:13	06/02/23 01:21	1
Silver	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:21	1
Zinc	<0.50		0.50	0.020	mg/L		05/25/23 17:13	06/02/23 01:21	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		05/25/23 17:13	06/01/23 22:27	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/25/23 17:13	06/01/23 22:27	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		05/30/23 10:40	05/31/23 10:54	1

**Method: SW846 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.023</b>		0.017	0.0090	mg/Kg	⊛	05/30/23 14:40	05/31/23 07:47	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	⊛	05/24/23 08:18	05/24/23 11:22	1
<b>pH (SW846 9045D)</b>	<b>7.9</b>		0.2	0.2	SU			05/23/23 19:09	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B80-3**

**Lab Sample ID: 500-233918-20**

Date Collected: 05/16/23 12:10

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 93.3

**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	0.00062	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00059	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00080	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
1,1-Dichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
1,1-Dichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
1,2-Dichloropropane	<0.0019		0.0019	0.00048	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00065	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
2-Butanone (MEK)	<0.0046		0.0046	0.0021	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Acetone	<0.019		0.019	0.0081	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Benzene	<0.0019		0.0019	0.00047	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Bromodichloromethane	<0.0019		0.0019	0.00038	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Bromoform	<0.0019		0.0019	0.00054	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Bromomethane	<0.0046		0.0046	0.0018	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
<b>Carbon disulfide</b>	<b>0.0017</b>	<b>J</b>	0.0046	0.00097	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Carbon tetrachloride	<0.0019		0.0019	0.00054	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Chlorobenzene	<0.0019		0.0019	0.00068	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Chloroform	<0.0019		0.0019	0.00064	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Chloromethane	<0.0046		0.0046	0.0019	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00052	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00056	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Dibromochloromethane	<0.0019		0.0019	0.00061	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Ethylbenzene	<0.0019		0.0019	0.00089	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00054	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Styrene	<0.0019		0.0019	0.00056	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Tetrachloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Toluene	<0.0019		0.0019	0.00047	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00082	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00065	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Trichloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Vinyl chloride	<0.0019		0.0019	0.00082	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	05/17/23 18:00	05/25/23 05:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		70 - 134	05/17/23 18:00	05/25/23 05:22	1
4-Bromofluorobenzene (Surr)	99		75 - 131	05/17/23 18:00	05/25/23 05:22	1
Dibromofluoromethane	105		75 - 126	05/17/23 18:00	05/25/23 05:22	1
Toluene-d8 (Surr)	89		75 - 124	05/17/23 18:00	05/25/23 05:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.18		0.18	0.025	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
1,2-Dichlorobenzene	<0.18		0.18	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
1,3-Dichlorobenzene	<0.18		0.18	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
1,4-Dichlorobenzene	<0.18		0.18	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.025	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B80-3**

**Lab Sample ID: 500-233918-20**

**Date Collected: 05/16/23 12:10**

**Matrix: Solid**

**Date Received: 05/17/23 12:03**

**Percent Solids: 93.3**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.35		0.35	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
2,4,6-Trichlorophenol	<0.35		0.35	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
2,4-Dichlorophenol	<0.35		0.35	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
2,4-Dimethylphenol	<0.35		0.35	0.078	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
2,4-Dinitrophenol	<0.70		0.70	0.20	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
2,4-Dinitrotoluene	<0.18		0.18	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
2,6-Dinitrotoluene	<0.18		0.18	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
2-Chloronaphthalene	<0.18		0.18	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
2-Chlorophenol	<0.18		0.18	0.011	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
2-Methylnaphthalene	<0.070		0.070	0.0070	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
2-Methylphenol	<0.18		0.18	0.018	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
2-Nitroaniline	<0.18		0.18	0.019	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
2-Nitrophenol	<0.35		0.35	0.024	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
3 & 4 Methylphenol	<0.18		0.18	0.026	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.028	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
3-Nitroaniline	<0.35		0.35	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
4,6-Dinitro-2-methylphenol	<0.70		0.70	0.20	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.024	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
4-Chloro-3-methylphenol	<0.35		0.35	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
4-Chloroaniline	<0.70		0.70	0.37	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
4-Nitroaniline	<0.35		0.35	0.026	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
4-Nitrophenol	<0.70		0.70	0.13	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Acenaphthene	<0.035		0.035	0.0071	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Acenaphthylene	<0.035		0.035	0.0059	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Anthracene	<0.035		0.035	0.0071	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Benzo[a]anthracene	<0.035		0.035	0.0074	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Benzo[a]pyrene	<0.035		0.035	0.034	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Benzo[b]fluoranthene	<0.035		0.035	0.033	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Benzo[g,h,i]perylene	<0.035		0.035	0.0075	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Benzo[k]fluoranthene	<0.035		0.035	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.013	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.14	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Butyl benzyl phthalate	<0.18		0.18	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Carbazole	<0.18		0.18	0.014	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Chrysene	<0.035		0.035	0.0092	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Dibenz(a,h)anthracene	<0.035		0.035	0.035	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Dibenzofuran	<0.18		0.18	0.012	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Diethyl phthalate	<0.18		0.18	0.016	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Dimethyl phthalate	<0.18		0.18	0.0076	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Di-n-butyl phthalate	<0.18		0.18	0.011	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Di-n-octyl phthalate	<0.35		0.35	0.24	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Fluoranthene	<0.035		0.035	0.0081	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Fluorene	<0.035		0.035	0.010	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Hexachlorobenzene	<0.070		0.070	0.0067	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Hexachlorobutadiene	<0.18		0.18	0.020	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Hexachlorocyclopentadiene	<0.70		0.70	0.37	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1
Hexachloroethane	<0.18		0.18	0.017	mg/Kg	☼	05/25/23 10:24	06/04/23 13:55	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B80-3**

**Lab Sample ID: 500-233918-20**

Date Collected: 05/16/23 12:10

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 93.3

**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	<0.035		0.035	0.034	mg/Kg	✳	05/25/23 10:24	06/04/23 13:55	1
Isophorone	<0.18		0.18	0.018	mg/Kg	✳	05/25/23 10:24	06/04/23 13:55	1
Naphthalene	<0.035		0.035	0.0063	mg/Kg	✳	05/25/23 10:24	06/04/23 13:55	1
Nitrobenzene	<0.035		0.035	0.011	mg/Kg	✳	05/25/23 10:24	06/04/23 13:55	1
N-Nitrosodi-n-propylamine	<0.070		0.070	0.0069	mg/Kg	✳	05/25/23 10:24	06/04/23 13:55	1
N-Nitrosodiphenylamine	<0.18		0.18	0.021	mg/Kg	✳	05/25/23 10:24	06/04/23 13:55	1
Pentachlorophenol	<0.70		0.70	0.087	mg/Kg	✳	05/25/23 10:24	06/04/23 13:55	1
Phenanthrene	<0.035		0.035	0.0076	mg/Kg	✳	05/25/23 10:24	06/04/23 13:55	1
Phenol	<0.18		0.18	0.015	mg/Kg	✳	05/25/23 10:24	06/04/23 13:55	1
Pyrene	<0.035		0.035	0.0095	mg/Kg	✳	05/25/23 10:24	06/04/23 13:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	71		31 - 166	05/25/23 10:24	06/04/23 13:55	1
Phenol-d5	72		30 - 153	05/25/23 10:24	06/04/23 13:55	1
Nitrobenzene-d5 (Surr)	71		37 - 147	05/25/23 10:24	06/04/23 13:55	1
2-Fluorobiphenyl	76		43 - 145	05/25/23 10:24	06/04/23 13:55	1
2,4,6-Tribromophenol	84		31 - 143	05/25/23 10:24	06/04/23 13:55	1
Terphenyl-d14 (Surr)	91		42 - 157	05/25/23 10:24	06/04/23 13:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.20	mg/Kg	✳	05/23/23 15:04	05/30/23 17:40	1
<b>Arsenic</b>	<b>1.7</b>		0.52	0.18	mg/Kg	✳	05/23/23 15:04	05/30/23 17:40	1
<b>Barium</b>	<b>4.7</b>		2.6	0.30	mg/Kg	✳	05/23/23 15:04	05/31/23 19:07	5
<b>Beryllium</b>	<b>0.25</b>		0.21	0.049	mg/Kg	✳	05/23/23 15:04	05/30/23 17:40	1
<b>Boron</b>	<b>14</b>		2.6	0.24	mg/Kg	✳	05/23/23 15:04	05/30/23 17:40	1
<b>Cadmium</b>	<b>0.031</b>	<b>J B</b>	0.10	0.019	mg/Kg	✳	05/23/23 15:04	05/30/23 17:40	1
<b>Calcium</b>	<b>150000</b>	<b>B</b>	52	8.8	mg/Kg	✳	05/23/23 15:04	05/31/23 19:07	5
<b>Chromium</b>	<b>3.9</b>		0.52	0.26	mg/Kg	✳	05/23/23 15:04	05/30/23 17:40	1
<b>Cobalt</b>	<b>2.0</b>		0.26	0.068	mg/Kg	✳	05/23/23 15:04	05/30/23 17:40	1
<b>Copper</b>	<b>5.1</b>		0.52	0.15	mg/Kg	✳	05/23/23 15:04	05/30/23 17:40	1
<b>Iron</b>	<b>5700</b>		52	27	mg/Kg	✳	05/23/23 15:04	05/31/23 19:07	5
<b>Lead</b>	<b>2.8</b>		0.26	0.12	mg/Kg	✳	05/23/23 15:04	05/30/23 17:40	1
<b>Magnesium</b>	<b>97000</b>	<b>B</b>	26	13	mg/Kg	✳	05/23/23 15:04	05/31/23 19:07	5
<b>Manganese</b>	<b>190</b>		0.52	0.075	mg/Kg	✳	05/23/23 15:04	05/30/23 17:40	1
<b>Nickel</b>	<b>5.3</b>		0.52	0.15	mg/Kg	✳	05/23/23 15:04	05/30/23 17:40	1
<b>Potassium</b>	<b>910</b>		26	9.2	mg/Kg	✳	05/23/23 15:04	05/30/23 17:40	1
Selenium	<0.52		0.52	0.31	mg/Kg	✳	05/23/23 15:04	05/30/23 17:40	1
Silver	<0.26		0.26	0.067	mg/Kg	✳	05/23/23 15:04	05/30/23 17:40	1
<b>Sodium</b>	<b>210</b>		52	7.7	mg/Kg	✳	05/23/23 15:04	05/30/23 17:40	1
<b>Thallium</b>	<b>0.26</b>	<b>J</b>	0.52	0.26	mg/Kg	✳	05/23/23 15:04	05/30/23 17:40	1
<b>Vanadium</b>	<b>4.3</b>		0.26	0.061	mg/Kg	✳	05/23/23 15:04	05/30/23 17:40	1
<b>Zinc</b>	<b>9.7</b>		1.0	0.46	mg/Kg	✳	05/23/23 15:04	05/30/23 17:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		05/25/23 17:13	06/02/23 01:24	1
Barium	<0.50		0.50	0.050	mg/L		05/25/23 17:13	06/02/23 01:24	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/25/23 17:13	06/02/23 01:24	1
Boron	<0.10		0.10	0.050	mg/L		05/25/23 17:13	06/02/23 01:24	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

**Client Sample ID: 3903-19-B80-3**

**Lab Sample ID: 500-233918-20**

Date Collected: 05/16/23 12:10

Matrix: Solid

Date Received: 05/17/23 12:03

Percent Solids: 93.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/25/23 17:13	06/02/23 01:24	1
<b>Calcium</b>	<b>8.3</b>		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 01:24	1
Chromium	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:24	1
Cobalt	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:24	1
Iron	<0.40		0.40	0.20	mg/L		05/25/23 17:13	06/02/23 01:24	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/25/23 17:13	06/02/23 01:24	1
Manganese	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:24	1
Nickel	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:24	1
Potassium	<2.5		2.5	0.50	mg/L		05/25/23 17:13	06/02/23 01:24	1
Selenium	<0.050		0.050	0.020	mg/L		05/25/23 17:13	06/02/23 01:24	1
Silver	<0.025		0.025	0.010	mg/L		05/25/23 17:13	06/02/23 01:24	1
Zinc	<0.50		0.50	0.020	mg/L		05/25/23 17:13	06/02/23 01:24	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		05/25/23 17:13	06/01/23 22:29	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/25/23 17:13	06/01/23 22:29	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		05/30/23 10:40	05/31/23 10:57	1

**Method: SW846 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.011</b>	<b>J</b>	0.016	0.0087	mg/Kg	⊛	05/30/23 14:40	05/31/23 07:49	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	⊛	05/25/23 08:19	05/25/23 10:43	1
<b>pH (SW846 9045D)</b>	<b>8.8</b>		0.2	0.2	SU			05/23/23 12:59	1

# Definitions/Glossary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

## Qualifiers

### GC/MS 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.
S1+	Surrogate recovery exceeds control limits, high biased.

### 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.
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

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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

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# Definitions/Glossary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

## 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

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# Accreditation/Certification Summary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE8-011

Job ID: 500-233918-1

## 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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15







# CHAIN OF CUSTODY RECORD

<b>Client Contact</b> Andrews Engineering, Inc 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact Colleen Grey email cgrey@andrews-eng.com	<b>Laboratory</b> 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 <u>AE8-011A</u> Project No <u>PTB/WO:195-002/11A</u> TAT <input checked="" type="checkbox"/> 15 BD <input type="checkbox"/> 10 BD <input type="checkbox"/> 5 BD <input type="checkbox"/> 2 BD <input type="checkbox"/> Other Sampler: <u>J. Weisbrodt</u>	COC No <u>2</u> of <u>3</u> Lab Job No.: <u>500-233918</u> Sample Temp:
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**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

**ANALYSES**

**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	3903-19-B85-3	5/16/23	1050	S	X	X					X	X	X	X	X		
13	3903-19-B85-3 DUP		1100														
14	3903-19-B78-1		1100														
15	3903-19-B78-2		1120														
16	3903-19-B78-2 DUP		1130														
17	3903-19-B78-3		1140														-4 Not Collected
18	3903-19-B80-1		1150														
19	3903-19-B80-2		1200														
20	3903-19-B80-3		1210														-4 & -4 DUP Not collected
21	3903-19-B81-1		1220														
22	3903-19-B81-1 DUP		1225														

Relinquished by <u>[Signature]</u>	Date/Time <u>5/17/23</u>	Received by <u>[Signature]</u>	Date/Time <u>5/17/23 12:50</u>
Relinquished by <u>[Signature]</u>	Date/Time <u>5/17/23 12:03</u>	Received by <u>[Signature]</u>	Date/Time <u>5/17/23 12:03</u>
Relinquished by	Date/Time	Received by	Date/Time