



# Illinois Environmental Protection Agency

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

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

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

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

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

### I. Source Location Information

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

Project Name: FAI 90/94 (I-90/94) Office Phone Number, if available: \_\_\_\_\_

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

North side of westbound I-290 & south of W. Van Buren St., between southbound I-90/94 to the east & S. Halsted St. to the west

City: Chicago State: IL Zip Code: 60607

County: Cook Township: Chicago City

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

Latitude: 41.87605 Longitude: - 87.64621  
(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: 0316003098 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

Approximate Start Date (mm/dd/yyyy): TBD Approximate End Date (mm/dd/yyyy): TBD

Estimated Volume of debris (cu. Yd.): 469

### 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 2615V2-114-B01, 2615V2-114-B03, 2615V2-114-B04 AND 2615V2-114-B05 WERE SAMPLED ADJACENT TO SITE 2615V2-114. SEE TABLE 3a 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/TEST AMERICA ANALYTICAL REPORT - TEST AMERICA JOB ID NUMBERS: 500-170061-1 AND 500-170061-2

**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:

Dec 2, 2019

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 2615V2-114

ROW

Sample ID	2615V2-114-B01	2615V2-114-B03	2615V2-114-B04	Maximum Allowable Concentration						
Sample Depth (ft)	0-5.5	0-5.5	0-5.5	<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	9/13/2019	9/13/2019	9/13/2019							
PID	0	0	0							
Sample pH	7.6	7.7	7.8							
Matrix	Soil	Soil	Soil							
Semivolatile Organic Compounds (mg/kg)										
Benzo(a)anthracene	J 0.031	0.17	0.82	0.9	0.9	0.9	1.1	1.8		
Benzo(a)pyrene	J 0.036	0.19 1,2	0.79 1,2	0.09	0.09	0.98	1.3	2.1		
Benzo(b)fluoranthene	0.059	0.22	1 1,2,3	0.9	0.9	0.9	1.5	2.1		
Dibenzo(a,h)anthracene	ND	J 0.021	0.12 1,2	0.09	0.09	0.15	0.2	0.42		

Sample ID	2615V2-114-B04 DUP	2615V2-114-B05	Maximum Allowable Concentration							
Sample Depth (ft)	0-5.5	0-5.5	<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	9/13/2019	9/13/2019								
PID	0	0								
Sample pH	7.7	7.8								
Matrix	Soil	Soil								
Semivolatile Organic Compounds (mg/kg)										
Benzo(a)anthracene	0.91 1,2,3	0.28	0.9	0.9	0.9	1.1	1.8			
Benzo(a)pyrene	0.88 1,2	0.28 1,2	0.09	0.09	0.98	1.3	2.1			
Benzo(b)fluoranthene	1.2 1,3	0.39	0.9	0.9	0.9	1.5	2.1			
Dibenzo(a,h)anthracene	0.11 1,4	J 0.037	0.09	0.09	0.15	0.2	0.42			

## ANALYTICAL REPORT

Eurofins TestAmerica, Chicago  
2417 Bond Street  
University Park, IL 60484  
Tel: (708)534-5200

Laboratory Job ID: 500-170061-1  
Client Project/Site: IDOT - AE7-23A

**For:**

Andrews Engineering Inc.  
3300 Ginger Creek Drive  
Springfield, Illinois 62711

Attn: Ms. Colleen Grey



Authorized for release by:  
10/4/2019 3:07:48 PM

Richard Wright, Senior Project Manager  
(708)534-5200  
[richard.wright@testamericainc.com](mailto:richard.wright@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B01**

**Lab Sample ID: 500-170061-1**

**Date Collected: 09/13/19 10:25**

**Matrix: Solid**

**Date Received: 09/13/19 16:35**

**Percent Solids: 85.0**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0015		0.0015	0.00049	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00046	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00062	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
1,1-Dichloroethane	<0.0015		0.0015	0.00050	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
1,1-Dichloroethene	<0.0015		0.0015	0.00050	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
1,2-Dichloroethane	<0.0036		0.0036	0.0011	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
1,2-Dichloropropane	<0.0015		0.0015	0.00038	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
1,3-Dichloropropene, Total	<0.0015		0.0015	0.00051	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
2-Butanone (MEK)	<0.0036		0.0036	0.0016	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
2-Hexanone	<0.0036		0.0036	0.0011	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
4-Methyl-2-pentanone (MIBK)	<0.0036		0.0036	0.0011	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
<b>Acetone</b>	<b>0.016</b>		0.015	0.0063	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Benzene	<0.0015		0.0015	0.00037	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Bromodichloromethane	<0.0015		0.0015	0.00030	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Bromoform	<0.0015		0.0015	0.00042	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Bromomethane	<0.0036		0.0036	0.0014	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Carbon disulfide	<0.0036		0.0036	0.00075	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Carbon tetrachloride	<0.0015		0.0015	0.00042	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Chlorobenzene	<0.0015		0.0015	0.00054	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Chloroethane	<0.0036 *		0.0036	0.0011	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Chloroform	<0.0015		0.0015	0.00050	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Chloromethane	<0.0036 *		0.0036	0.0015	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00041	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00044	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Dibromochloromethane	<0.0015		0.0015	0.00047	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Ethylbenzene	<0.0015		0.0015	0.00069	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00043	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Methylene Chloride	<0.0036		0.0036	0.0014	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Styrene	<0.0015		0.0015	0.00044	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Tetrachloroethene	<0.0015		0.0015	0.00049	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Toluene	<0.0015		0.0015	0.00037	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00064	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00051	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Trichloroethene	<0.0015		0.0015	0.00049	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Vinyl chloride	<0.0015		0.0015	0.00064	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1
Xylenes, Total	<0.0029		0.0029	0.00046	mg/Kg	☼	09/14/19 12:55	09/18/19 11:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 134	09/14/19 12:55	09/18/19 11:33	1
4-Bromofluorobenzene (Surr)	97		75 - 131	09/14/19 12:55	09/18/19 11:33	1
Dibromofluoromethane	85		75 - 126	09/14/19 12:55	09/18/19 11:33	1
Toluene-d8 (Surr)	87		75 - 124	09/14/19 12:55	09/18/19 11:33	1

**Method: 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	0.041	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
1,2-Dichlorobenzene	<0.19	F1	0.19	0.046	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
1,4-Dichlorobenzene	<0.19	F1	0.19	0.049	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
2,2'-oxybis[1-chloropropane]	<0.19	F1	0.19	0.045	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B01**

**Lab Sample ID: 500-170061-1**

Date Collected: 09/13/19 10:25

Matrix: Solid

Date Received: 09/13/19 16:35

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.38	F1 *	0.38	0.088	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
2,4,6-Trichlorophenol	<0.38	F1	0.38	0.13	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
2,4-Dimethylphenol	<0.38	F1	0.38	0.15	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
2,4-Dinitrophenol	<0.77	F1 *	0.77	0.68	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
2,4-Dinitrotoluene	<0.19	F1	0.19	0.061	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
2,6-Dinitrotoluene	<0.19	F1	0.19	0.076	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
2-Chloronaphthalene	<0.19	F1 *	0.19	0.042	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
2-Chlorophenol	<0.19	F1	0.19	0.066	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
<b>2-Methylnaphthalene</b>	<b>0.026</b>	<b>J F1</b>	0.077	0.0071	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
2-Methylphenol	<0.19	F1	0.19	0.062	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
2-Nitroaniline	<0.19	F1	0.19	0.052	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
2-Nitrophenol	<0.38	F1	0.38	0.091	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
3 & 4 Methylphenol	<0.19	F1	0.19	0.064	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
4,6-Dinitro-2-methylphenol	<0.77	F1	0.77	0.31	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
4-Chloro-3-methylphenol	<0.38	F1	0.38	0.13	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
4-Nitroaniline	<0.38	F1	0.38	0.16	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
4-Nitrophenol	<0.77		0.77	0.37	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Acenaphthylene	<0.038	F1	0.038	0.0051	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
<b>Anthracene</b>	<b>0.012</b>	<b>J</b>	0.038	0.0064	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
<b>Benzo[a]anthracene</b>	<b>0.031</b>	<b>J</b>	0.038	0.0052	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
<b>Benzo[a]pyrene</b>	<b>0.036</b>	<b>J</b>	0.038	0.0074	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
<b>Benzo[b]fluoranthene</b>	<b>0.059</b>		0.038	0.0083	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
<b>Benzo[g,h,i]perylene</b>	<b>0.020</b>	<b>J F1</b>	0.038	0.012	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
<b>Benzo[k]fluoranthene</b>	<b>0.017</b>	<b>J</b>	0.038	0.011	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Bis(2-chloroethoxy)methane	<0.19	F1	0.19	0.039	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Bis(2-chloroethyl)ether	<0.19	F1	0.19	0.058	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
<b>Chrysene</b>	<b>0.052</b>		0.038	0.010	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Dibenz(a,h)anthracene	<0.038	F1	0.038	0.0074	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Dimethyl phthalate	<0.19	F1 *	0.19	0.050	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
<b>Fluoranthene</b>	<b>0.053</b>		0.038	0.0071	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Hexachlorocyclopentadiene	<0.77	F1	0.77	0.22	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Hexachloroethane	<0.19	F1	0.19	0.058	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B01**

**Lab Sample ID: 500-170061-1**

Date Collected: 09/13/19 10:25

Matrix: Solid

Date Received: 09/13/19 16:35

Percent Solids: 85.0

## Method: 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	F1	0.038	0.010	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Nitrobenzene	<0.038	F1	0.038	0.0096	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
N-Nitrosodi-n-propylamine	<0.077	F1	0.077	0.047	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Pentachlorophenol	<0.77	F1	0.77	0.62	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
<b>Phenanthrene</b>	<b>0.11</b>		0.038	0.0054	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Phenol	<0.19		0.19	0.085	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
<b>Pyrene</b>	<b>0.063</b>		0.038	0.0076	mg/Kg	☼	09/27/19 07:36	09/27/19 18:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	62		31 - 143				09/27/19 07:36	09/27/19 18:44	1
2-Fluorobiphenyl	80		43 - 145				09/27/19 07:36	09/27/19 18:44	1
2-Fluorophenol	79		31 - 166				09/27/19 07:36	09/27/19 18:44	1
Nitrobenzene-d5	67		37 - 147				09/27/19 07:36	09/27/19 18:44	1
Phenol-d5	69		30 - 153				09/27/19 07:36	09/27/19 18:44	1
Terphenyl-d14	88		42 - 157				09/27/19 07:36	09/27/19 18:44	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1
<b>Arsenic</b>	<b>8.5</b>		0.54	0.19	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1
<b>Barium</b>	<b>35</b>		0.54	0.062	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1
<b>Beryllium</b>	<b>0.59</b>		0.22	0.051	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1
<b>Boron</b>	<b>14</b>		2.7	0.25	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1
<b>Cadmium</b>	<b>0.23</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1
<b>Calcium</b>	<b>54000</b>	<b>B</b>	54	9.2	mg/Kg	☼	09/25/19 10:06	09/27/19 00:12	5
<b>Chromium</b>	<b>15</b>		0.54	0.27	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1
<b>Cobalt</b>	<b>13</b>		0.27	0.071	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1
<b>Copper</b>	<b>31</b>	<b>B</b>	0.54	0.15	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1
<b>Iron</b>	<b>18000</b>		11	5.6	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1
<b>Lead</b>	<b>29</b>		0.27	0.13	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1
<b>Magnesium</b>	<b>24000</b>		5.4	2.7	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1
<b>Manganese</b>	<b>320</b>		0.54	0.079	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1
<b>Nickel</b>	<b>35</b>		0.54	0.16	mg/Kg	☼	09/25/19 10:06	09/27/19 00:08	1
<b>Potassium</b>	<b>2600</b>		27	9.6	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1
<b>Selenium</b>	<b>0.72</b>		0.54	0.32	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1
<b>Silver</b>	<b>2.2</b>		0.27	0.070	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1
<b>Sodium</b>	<b>1300</b>		54	8.0	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1
<b>Thallium</b>	<b>0.84</b>		0.54	0.27	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1
<b>Vanadium</b>	<b>17</b>		0.27	0.064	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1
<b>Zinc</b>	<b>54</b>		1.1	0.48	mg/Kg	☼	09/25/19 10:06	09/26/19 11:33	1

## Method: 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		09/23/19 08:30	09/23/19 16:40	1
Barium	<0.50		0.50	0.050	mg/L		09/23/19 08:30	09/23/19 16:40	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		09/23/19 08:30	09/23/19 16:40	1
Boron	<0.10		0.10	0.050	mg/L		09/23/19 08:30	09/23/19 16:40	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B01**

**Lab Sample ID: 500-170061-1**

Date Collected: 09/13/19 10:25

Matrix: Solid

Date Received: 09/13/19 16:35

Percent Solids: 85.0

### Method: 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		09/23/19 08:30	09/23/19 16:40	1
<b>Calcium</b>	<b>51</b>		2.5	0.50	mg/L		09/23/19 08:30	09/23/19 16:40	1
Chromium	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:40	1
Cobalt	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:40	1
<b>Iron</b>	<b>0.27</b>	<b>J</b>	0.40	0.20	mg/L		09/23/19 08:30	09/23/19 16:40	1
Lead	<0.0075		0.0075	0.0075	mg/L		09/23/19 08:30	09/23/19 16:40	1
Manganese	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:40	1
Nickel	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:40	1
<b>Potassium</b>	<b>3.0</b>		2.5	0.50	mg/L		09/23/19 08:30	09/23/19 16:40	1
Selenium	<0.050		0.050	0.020	mg/L		09/23/19 08:30	09/23/19 16:40	1
Silver	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:40	1
<b>Zinc</b>	<b>0.021</b>	<b>J B</b>	0.50	0.020	mg/L		09/23/19 08:30	09/23/19 16:40	1

### Method: 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		09/23/19 08:30	09/24/19 12:56	1
Thallium	<0.0020		0.0020	0.0020	mg/L		09/23/19 08:30	09/24/19 12:56	1

### Method: 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		09/25/19 10:00	09/26/19 10:16	1

### Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.025</b>		0.019	0.0062	mg/Kg	☼	09/25/19 14:35	09/26/19 09:52	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.53		0.53	0.26	mg/Kg	☼	09/25/19 10:15	09/25/19 14:44	1
<b>pH</b>	<b>7.6</b>		0.2	0.2	SU			09/20/19 15:59	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B03**

**Lab Sample ID: 500-170061-3**

**Date Collected: 09/13/19 09:55**

**Matrix: Solid**

**Date Received: 09/13/19 16:35**

**Percent Solids: 87.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0015		0.0015	0.00050	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00048	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00064	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
1,1-Dichloroethane	<0.0015		0.0015	0.00051	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
1,1-Dichloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
1,2-Dichloroethane	<0.0037		0.0037	0.0012	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
1,2-Dichloropropane	<0.0015		0.0015	0.00039	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
1,3-Dichloropropene, Total	<0.0015		0.0015	0.00052	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
2-Butanone (MEK)	<0.0037		0.0037	0.0017	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
2-Hexanone	<0.0037		0.0037	0.0012	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
4-Methyl-2-pentanone (MIBK)	<0.0037		0.0037	0.0011	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
<b>Acetone</b>	<b>0.0087</b>	<b>J</b>	0.015	0.0065	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Benzene	<0.0015		0.0015	0.00038	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Bromodichloromethane	<0.0015		0.0015	0.00030	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Bromoform	<0.0015		0.0015	0.00044	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Bromomethane	<0.0037		0.0037	0.0014	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Carbon disulfide	<0.0037		0.0037	0.00078	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Carbon tetrachloride	<0.0015		0.0015	0.00043	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Chlorobenzene	<0.0015		0.0015	0.00055	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Chloroethane	<0.0037	*	0.0037	0.0011	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Chloroform	<0.0015		0.0015	0.00052	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Chloromethane	<0.0037	*	0.0037	0.0015	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00042	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00045	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Dibromochloromethane	<0.0015		0.0015	0.00049	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Ethylbenzene	<0.0015		0.0015	0.00071	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00044	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Methylene Chloride	<0.0037		0.0037	0.0015	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Styrene	<0.0015		0.0015	0.00045	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Tetrachloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Toluene	<0.0015		0.0015	0.00038	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00066	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00052	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Trichloroethene	<0.0015		0.0015	0.00050	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Vinyl chloride	<0.0015		0.0015	0.00066	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1
Xylenes, Total	<0.0030		0.0030	0.00048	mg/Kg	☼	09/14/19 12:55	09/18/19 12:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	09/14/19 12:55	09/18/19 12:24	1
4-Bromofluorobenzene (Surr)	92		75 - 131	09/14/19 12:55	09/18/19 12:24	1
Dibromofluoromethane	85		75 - 126	09/14/19 12:55	09/18/19 12:24	1
Toluene-d8 (Surr)	87		75 - 124	09/14/19 12:55	09/18/19 12:24	1

**Method: 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	0.039	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B03**

**Lab Sample ID: 500-170061-3**

Date Collected: 09/13/19 09:55

Matrix: Solid

Date Received: 09/13/19 16:35

Percent Solids: 87.7

**Method: 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	0.083	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
2,4-Dinitrophenol	<0.73	*	0.73	0.64	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
2-Chloronaphthalene	<0.18	*	0.18	0.040	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
<b>2-Methylnaphthalene</b>	<b>0.057</b>	<b>J</b>	0.073	0.0067	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
2-Nitrophenol	<0.36		0.36	0.086	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
4-Nitrophenol	<0.73		0.73	0.35	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
<b>Acenaphthene</b>	<b>0.023</b>	<b>J</b>	0.036	0.0065	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
<b>Anthracene</b>	<b>0.058</b>		0.036	0.0061	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
<b>Benzo[a]anthracene</b>	<b>0.17</b>		0.036	0.0049	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
<b>Benzo[a]pyrene</b>	<b>0.19</b>		0.036	0.0070	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
<b>Benzo[b]fluoranthene</b>	<b>0.22</b>		0.036	0.0079	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
<b>Benzo[g,h,i]perylene</b>	<b>0.088</b>		0.036	0.012	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
<b>Benzo[k]fluoranthene</b>	<b>0.079</b>		0.036	0.011	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
Carbazole	<0.18		0.18	0.091	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
<b>Chrysene</b>	<b>0.19</b>		0.036	0.0099	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
<b>Dibenz(a,h)anthracene</b>	<b>0.021</b>	<b>J</b>	0.036	0.0070	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
Dimethyl phthalate	<0.18	*	0.18	0.048	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
<b>Fluoranthene</b>	<b>0.34</b>		0.036	0.0067	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
<b>Fluorene</b>	<b>0.024</b>	<b>J</b>	0.036	0.0051	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B03**

**Lab Sample ID: 500-170061-3**

Date Collected: 09/13/19 09:55

Matrix: Solid

Date Received: 09/13/19 16:35

Percent Solids: 87.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.079</b>		0.036	0.0094	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
<b>Naphthalene</b>	<b>0.031</b>	<b>J</b>	0.036	0.0056	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
<b>Phenanthrene</b>	<b>0.32</b>		0.036	0.0051	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
Phenol	<0.18		0.18	0.081	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
<b>Pyrene</b>	<b>0.36</b>		0.036	0.0072	mg/Kg	☼	09/27/19 07:36	09/27/19 21:27	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2,4,6-Tribromophenol	60		31 - 143				09/27/19 07:36	09/27/19 21:27	1
2-Fluorobiphenyl	78		43 - 145				09/27/19 07:36	09/27/19 21:27	1
2-Fluorophenol	87		31 - 166				09/27/19 07:36	09/27/19 21:27	1
Nitrobenzene-d5	66		37 - 147				09/27/19 07:36	09/27/19 21:27	1
Phenol-d5	73		30 - 153				09/27/19 07:36	09/27/19 21:27	1
Terphenyl-d14	87		42 - 157				09/27/19 07:36	09/27/19 21:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.37</b>	<b>J B</b>	1.1	0.20	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1
<b>Arsenic</b>	<b>8.4</b>		0.53	0.18	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1
<b>Barium</b>	<b>47</b>		0.53	0.060	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1
<b>Beryllium</b>	<b>0.60</b>		0.21	0.049	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1
<b>Boron</b>	<b>15</b>		2.6	0.24	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1
<b>Cadmium</b>	<b>0.30</b>	<b>B</b>	0.11	0.019	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1
<b>Calcium</b>	<b>49000</b>	<b>B</b>	53	8.9	mg/Kg	☼	09/25/19 10:06	09/27/19 00:29	5
<b>Chromium</b>	<b>15</b>		0.53	0.26	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1
<b>Cobalt</b>	<b>14</b>		0.26	0.069	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1
<b>Copper</b>	<b>45</b>	<b>B</b>	0.53	0.15	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1
<b>Iron</b>	<b>19000</b>		11	5.5	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1
<b>Lead</b>	<b>30</b>		0.26	0.12	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1
<b>Magnesium</b>	<b>21000</b>		5.3	2.6	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1
<b>Manganese</b>	<b>300</b>		0.53	0.076	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1
<b>Nickel</b>	<b>36</b>		0.53	0.15	mg/Kg	☼	09/25/19 10:06	09/27/19 00:25	1
<b>Potassium</b>	<b>2600</b>		26	9.3	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1
<b>Selenium</b>	<b>0.86</b>		0.53	0.31	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1
<b>Silver</b>	<b>2.3</b>		0.26	0.068	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1
<b>Sodium</b>	<b>240</b>		53	7.8	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1
<b>Thallium</b>	<b>0.93</b>		0.53	0.26	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1
<b>Vanadium</b>	<b>19</b>		0.26	0.062	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1
<b>Zinc</b>	<b>85</b>		1.1	0.46	mg/Kg	☼	09/25/19 10:06	09/26/19 12:09	1

**Method: 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		09/23/19 08:30	09/23/19 16:48	1
Barium	<0.50		0.50	0.050	mg/L		09/23/19 08:30	09/23/19 16:48	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		09/23/19 08:30	09/23/19 16:48	1
Boron	<0.10		0.10	0.050	mg/L		09/23/19 08:30	09/23/19 16:48	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B03**

**Lab Sample ID: 500-170061-3**

Date Collected: 09/13/19 09:55

Matrix: Solid

Date Received: 09/13/19 16:35

Percent Solids: 87.7

## Method: 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		09/23/19 08:30	09/23/19 16:48	1
<b>Calcium</b>	<b>39</b>		2.5	0.50	mg/L		09/23/19 08:30	09/23/19 16:48	1
Chromium	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:48	1
Cobalt	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:48	1
Iron	<0.40		0.40	0.20	mg/L		09/23/19 08:30	09/23/19 16:48	1
Lead	<0.0075		0.0075	0.0075	mg/L		09/23/19 08:30	09/23/19 16:48	1
<b>Manganese</b>	<b>0.034</b>		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:48	1
Nickel	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:48	1
<b>Potassium</b>	<b>2.3 J</b>		2.5	0.50	mg/L		09/23/19 08:30	09/23/19 16:48	1
Selenium	<0.050		0.050	0.020	mg/L		09/23/19 08:30	09/23/19 16:48	1
Silver	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:48	1
<b>Zinc</b>	<b>0.028 J B</b>		0.50	0.020	mg/L		09/23/19 08:30	09/23/19 16:48	1

## Method: 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		09/23/19 08:30	09/24/19 13:04	1
Thallium	<0.0020		0.0020	0.0020	mg/L		09/23/19 08:30	09/24/19 13:04	1

## Method: 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		09/25/19 10:00	09/26/19 10:19	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.023</b>		0.019	0.0062	mg/Kg	☼	09/25/19 14:35	09/26/19 09:56	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.39		0.39	0.20	mg/Kg	☼	09/25/19 10:15	09/25/19 14:45	1
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			09/20/19 16:02	1



# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B04**

**Lab Sample ID: 500-170061-4**

**Date Collected: 09/13/19 10:40**

**Matrix: Solid**

**Date Received: 09/13/19 16:35**

**Percent Solids: 87.2**

**Method: 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	☼	09/14/19 12:55	09/18/19 12:50	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
1,2-Dichloroethane	<0.0040		0.0040	0.0013	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00056	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
2-Hexanone	<0.0040		0.0040	0.0013	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Acetone	<0.016		0.016	0.0070	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Carbon disulfide	<0.0040		0.0040	0.00084	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Chloroethane	<0.0040 *		0.0040	0.0012	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Chloromethane	<0.0040 *		0.0040	0.0016	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Ethylbenzene	<0.0016		0.0016	0.00077	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00071	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00056	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Vinyl chloride	<0.0016		0.0016	0.00071	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1
Xylenes, Total	<0.0032		0.0032	0.00051	mg/Kg	☼	09/14/19 12:55	09/18/19 12:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 134	09/14/19 12:55	09/18/19 12:50	1
4-Bromofluorobenzene (Surr)	92		75 - 131	09/14/19 12:55	09/18/19 12:50	1
Dibromofluoromethane	87		75 - 126	09/14/19 12:55	09/18/19 12:50	1
Toluene-d8 (Surr)	88		75 - 124	09/14/19 12:55	09/18/19 12:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B04**

**Lab Sample ID: 500-170061-4**

Date Collected: 09/13/19 10:40

Matrix: Solid

Date Received: 09/13/19 16:35

Percent Solids: 87.2

**Method: 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	0.086	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
2,4-Dinitrophenol	<0.76	*	0.76	0.67	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
2-Chloronaphthalene	<0.19	*	0.19	0.042	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
<b>2-Methylnaphthalene</b>	<b>0.097</b>		0.076	0.0070	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
2-Nitrophenol	<0.38		0.38	0.089	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
<b>Acenaphthene</b>	<b>0.17</b>		0.038	0.0068	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
<b>Acenaphthylene</b>	<b>0.024</b>	J	0.038	0.0050	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
<b>Anthracene</b>	<b>0.42</b>		0.038	0.0063	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
<b>Benzo[a]anthracene</b>	<b>0.82</b>		0.038	0.0051	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
<b>Benzo[a]pyrene</b>	<b>0.79</b>		0.038	0.0073	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
<b>Benzo[b]fluoranthene</b>	<b>1.0</b>		0.038	0.0082	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
<b>Benzo[g,h,i]perylene</b>	<b>0.35</b>		0.038	0.012	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
<b>Benzo[k]fluoranthene</b>	<b>0.35</b>		0.038	0.011	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
<b>Carbazole</b>	<b>0.24</b>		0.19	0.095	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
<b>Chrysene</b>	<b>0.81</b>		0.038	0.010	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
<b>Dibenz(a,h)anthracene</b>	<b>0.12</b>		0.038	0.0073	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
<b>Dibenzofuran</b>	<b>0.14</b>	J	0.19	0.044	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
Dimethyl phthalate	<0.19	*	0.19	0.049	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
<b>Fluoranthene</b>	<b>1.8</b>		0.038	0.0070	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
<b>Fluorene</b>	<b>0.23</b>		0.038	0.0053	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B04**

**Lab Sample ID: 500-170061-4**

Date Collected: 09/13/19 10:40

Matrix: Solid

Date Received: 09/13/19 16:35

Percent Solids: 87.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.39</b>		0.038	0.0098	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
<b>Naphthalene</b>	<b>0.25</b>		0.038	0.0058	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
Nitrobenzene	<0.038		0.038	0.0094	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
<b>Phenanthrene</b>	<b>1.8</b>		0.038	0.0053	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
Phenol	<0.19		0.19	0.084	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
<b>Pyrene</b>	<b>1.5</b>		0.038	0.0075	mg/Kg	☼	09/27/19 07:36	09/27/19 21:56	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2,4,6-Tribromophenol	66		31 - 143				09/27/19 07:36	09/27/19 21:56	1
2-Fluorobiphenyl	84		43 - 145				09/27/19 07:36	09/27/19 21:56	1
2-Fluorophenol	100		31 - 166				09/27/19 07:36	09/27/19 21:56	1
Nitrobenzene-d5	74		37 - 147				09/27/19 07:36	09/27/19 21:56	1
Phenol-d5	89		30 - 153				09/27/19 07:36	09/27/19 21:56	1
Terphenyl-d14	87		42 - 157				09/27/19 07:36	09/27/19 21:56	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.39</b>	<b>J B</b>	1.1	0.21	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1
<b>Arsenic</b>	<b>7.9</b>		0.54	0.19	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1
<b>Barium</b>	<b>59</b>		0.54	0.062	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1
<b>Beryllium</b>	<b>0.68</b>		0.22	0.051	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1
<b>Boron</b>	<b>18</b>		2.7	0.25	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1
<b>Cadmium</b>	<b>0.34</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1
<b>Calcium</b>	<b>43000</b>	<b>B</b>	54	9.2	mg/Kg	☼	09/25/19 10:06	09/27/19 00:37	5
<b>Chromium</b>	<b>16</b>		0.54	0.27	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1
<b>Cobalt</b>	<b>14</b>		0.27	0.071	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1
<b>Copper</b>	<b>34</b>	<b>B</b>	0.54	0.15	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1
<b>Iron</b>	<b>18000</b>		11	5.7	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1
<b>Lead</b>	<b>80</b>		0.27	0.13	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1
<b>Magnesium</b>	<b>19000</b>		5.4	2.7	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1
<b>Manganese</b>	<b>300</b>		0.54	0.079	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1
<b>Nickel</b>	<b>38</b>		0.54	0.16	mg/Kg	☼	09/25/19 10:06	09/27/19 00:33	1
<b>Potassium</b>	<b>2900</b>		27	9.6	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1
<b>Selenium</b>	<b>0.63</b>		0.54	0.32	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1
<b>Silver</b>	<b>2.6</b>		0.27	0.070	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1
<b>Sodium</b>	<b>270</b>		54	8.1	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1
<b>Thallium</b>	<b>0.98</b>		0.54	0.27	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1
<b>Vanadium</b>	<b>21</b>		0.27	0.064	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1
<b>Zinc</b>	<b>92</b>		1.1	0.48	mg/Kg	☼	09/25/19 10:06	09/26/19 12:13	1

## Method: 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		09/23/19 08:30	09/23/19 16:52	1
Barium	<0.50		0.50	0.050	mg/L		09/23/19 08:30	09/23/19 16:52	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		09/23/19 08:30	09/23/19 16:52	1
Boron	<0.10		0.10	0.050	mg/L		09/23/19 08:30	09/23/19 16:52	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B04**

**Lab Sample ID: 500-170061-4**

Date Collected: 09/13/19 10:40

Matrix: Solid

Date Received: 09/13/19 16:35

Percent Solids: 87.2

## Method: 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		09/23/19 08:30	09/23/19 16:52	1
<b>Calcium</b>	<b>28</b>		2.5	0.50	mg/L		09/23/19 08:30	09/23/19 16:52	1
Chromium	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:52	1
Cobalt	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:52	1
Iron	<0.40		0.40	0.20	mg/L		09/23/19 08:30	09/23/19 16:52	1
Lead	<0.0075		0.0075	0.0075	mg/L		09/23/19 08:30	09/23/19 16:52	1
Manganese	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:52	1
Nickel	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:52	1
<b>Potassium</b>	<b>2.8</b>		2.5	0.50	mg/L		09/23/19 08:30	09/23/19 16:52	1
Selenium	<0.050		0.050	0.020	mg/L		09/23/19 08:30	09/23/19 16:52	1
Silver	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:52	1
Zinc	<0.50		0.50	0.020	mg/L		09/23/19 08:30	09/23/19 16:52	1

## Method: 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		09/23/19 08:30	09/24/19 13:08	1
Thallium	<0.0020		0.0020	0.0020	mg/L		09/23/19 08:30	09/24/19 13:08	1

## Method: 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		09/25/19 10:00	09/26/19 10:39	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.036</b>		0.018	0.0059	mg/Kg	☼	09/25/19 14:35	09/26/19 09:58	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.48		0.48	0.24	mg/Kg	☼	09/25/19 10:15	09/25/19 14:45	1
<b>pH</b>	<b>7.8</b>		0.2	0.2	SU			09/20/19 16:04	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B04 Dup**

**Lab Sample ID: 500-170061-5**

Date Collected: 09/13/19 10:45

Matrix: Solid

Date Received: 09/13/19 16:35

Percent Solids: 88.7

**Method: 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	0.00053	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00068	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
1,2-Dichloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00056	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
2-Hexanone	<0.0040		0.0040	0.0012	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
<b>Acetone</b>	<b>0.011</b>	<b>J</b>	0.016	0.0069	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
Carbon disulfide	<0.0040		0.0040	0.00082	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
Chlorobenzene	<0.0016		0.0016	0.00058	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
Chloroethane	<0.0040	*	0.0040	0.0012	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
Chloroform	<0.0016		0.0016	0.00055	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
Chloromethane	<0.0040	*	0.0040	0.0016	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
Dibromochloromethane	<0.0016		0.0016	0.00052	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
Ethylbenzene	<0.0016		0.0016	0.00076	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
<b>Methylene Chloride</b>	<b>0.0023</b>	<b>J</b>	0.0040	0.0016	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
Styrene	<0.0016		0.0016	0.00048	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
Tetrachloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00070	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00056	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
Vinyl chloride	<0.0016		0.0016	0.00070	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1
Xylenes, Total	<0.0032		0.0032	0.00051	mg/Kg	☼	09/14/19 12:55	09/18/19 13:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 134	09/14/19 12:55	09/18/19 13:15	1
4-Bromofluorobenzene (Surr)	90		75 - 131	09/14/19 12:55	09/18/19 13:15	1
Dibromofluoromethane	87		75 - 126	09/14/19 12:55	09/18/19 13:15	1
Toluene-d8 (Surr)	85		75 - 124	09/14/19 12:55	09/18/19 13:15	1

**Method: 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	0.039	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B04 Dup**

**Lab Sample ID: 500-170061-5**

**Date Collected: 09/13/19 10:45**

**Matrix: Solid**

**Date Received: 09/13/19 16:35**

**Percent Solids: 88.7**

**Method: 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	0.083	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
2,4,6-Trichlorophenol	<0.36		0.36	0.13	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
2,4-Dinitrophenol	<0.74	*	0.74	0.64	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
2-Chloronaphthalene	<0.18	*	0.18	0.040	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
<b>2-Methylnaphthalene</b>	<b>0.024</b>	<b>J</b>	0.074	0.0067	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
2-Nitrophenol	<0.36		0.36	0.086	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.29	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
<b>Acenaphthene</b>	<b>0.053</b>		0.036	0.0066	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
<b>Acenaphthylene</b>	<b>0.026</b>	<b>J</b>	0.036	0.0048	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
<b>Anthracene</b>	<b>0.24</b>		0.036	0.0061	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
<b>Benzo[a]anthracene</b>	<b>0.91</b>		0.036	0.0049	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
<b>Benzo[a]pyrene</b>	<b>0.88</b>		0.036	0.0071	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
<b>Benzo[b]fluoranthene</b>	<b>1.2</b>		0.036	0.0079	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
<b>Benzo[g,h,i]perylene</b>	<b>0.33</b>		0.036	0.012	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
<b>Benzo[k]fluoranthene</b>	<b>0.40</b>		0.036	0.011	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
Butyl benzyl phthalate	<0.18		0.18	0.070	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
Carbazole	<0.18		0.18	0.091	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
<b>Chrysene</b>	<b>0.95</b>		0.036	0.010	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
<b>Dibenz(a,h)anthracene</b>	<b>0.11</b>		0.036	0.0071	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
Dimethyl phthalate	<0.18	*	0.18	0.048	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
Di-n-octyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
<b>Fluoranthene</b>	<b>2.0</b>		0.036	0.0068	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
<b>Fluorene</b>	<b>0.067</b>		0.036	0.0051	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
Hexachloroethane	<0.18		0.18	0.056	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B04 Dup**

**Lab Sample ID: 500-170061-5**

Date Collected: 09/13/19 10:45

Matrix: Solid

Date Received: 09/13/19 16:35

Percent Solids: 88.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.34</b>		0.036	0.0095	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
<b>Naphthalene</b>	<b>0.042</b>		0.036	0.0056	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
<b>Phenanthrene</b>	<b>0.95</b>		0.036	0.0051	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
Phenol	<0.18		0.18	0.081	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
<b>Pyrene</b>	<b>1.7</b>		0.036	0.0073	mg/Kg	☼	09/27/19 07:36	09/27/19 22:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	13	X	31 - 143				09/27/19 07:36	09/27/19 22:25	1
2-Fluorobiphenyl	22	X	43 - 145				09/27/19 07:36	09/27/19 22:25	1
2-Fluorophenol	34		31 - 166				09/27/19 07:36	09/27/19 22:25	1
Nitrobenzene-d5	26	X	37 - 147				09/27/19 07:36	09/27/19 22:25	1
Phenol-d5	24	X	30 - 153				09/27/19 07:36	09/27/19 22:25	1
Terphenyl-d14	25	X	42 - 157				09/27/19 07:36	09/27/19 22:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19	H	0.19	0.040	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
1,2-Dichlorobenzene	<0.19	H	0.19	0.044	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
1,3-Dichlorobenzene	<0.19	H	0.19	0.042	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
1,4-Dichlorobenzene	<0.19	H	0.19	0.048	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
2,2'-oxybis[1-chloropropane]	<0.19	H *	0.19	0.043	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
2,4,5-Trichlorophenol	<0.37	H	0.37	0.085	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
2,4,6-Trichlorophenol	<0.37	H	0.37	0.13	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
2,4-Dichlorophenol	<0.37	H	0.37	0.088	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
2,4-Dimethylphenol	<0.37	H	0.37	0.14	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
2,4-Dinitrophenol	<0.75	H *	0.75	0.65	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
2,4-Dinitrotoluene	<0.19	H	0.19	0.059	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
2,6-Dinitrotoluene	<0.19	H	0.19	0.073	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
2-Chloronaphthalene	<0.19	H	0.19	0.041	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
2-Chlorophenol	<0.19	H	0.19	0.063	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
<b>2-Methylnaphthalene</b>	<b>0.11</b>	<b>H</b>	0.075	0.0068	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
2-Methylphenol	<0.19	H	0.19	0.059	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
2-Nitroaniline	<0.19	H	0.19	0.050	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
2-Nitrophenol	<0.37	H	0.37	0.088	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
3 & 4 Methylphenol	<0.19	H	0.19	0.062	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
3,3'-Dichlorobenzidine	<0.19	H	0.19	0.052	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
3-Nitroaniline	<0.37	H	0.37	0.11	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
4,6-Dinitro-2-methylphenol	<0.75	H	0.75	0.30	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
4-Bromophenyl phenyl ether	<0.19	H	0.19	0.049	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
4-Chloro-3-methylphenol	<0.37	H	0.37	0.13	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
4-Chloroaniline	<0.75	H	0.75	0.17	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
4-Chlorophenyl phenyl ether	<0.19	H	0.19	0.043	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
4-Nitroaniline	<0.37	H	0.37	0.16	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
4-Nitrophenol	<0.75	H	0.75	0.35	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
<b>Acenaphthene</b>	<b>0.51</b>	<b>H</b>	0.037	0.0067	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B04 Dup**

**Lab Sample ID: 500-170061-5**

Date Collected: 09/13/19 10:45

Matrix: Solid

Date Received: 09/13/19 16:35

Percent Solids: 88.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acenaphthylene</b>	<b>0.19</b>	<b>H</b>	0.037	0.0049	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
Bis(2-chloroethoxy)methane	<0.19	H	0.19	0.038	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
Bis(2-chloroethyl)ether	<0.19	H	0.19	0.056	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
Bis(2-ethylhexyl) phthalate	<0.19	H	0.19	0.068	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
Butyl benzyl phthalate	<0.19	H	0.19	0.070	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
<b>Carbazole</b>	<b>0.67</b>	<b>H</b>	0.19	0.093	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
<b>Dibenzofuran</b>	<b>0.28</b>	<b>H</b>	0.19	0.043	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
Diethyl phthalate	<0.19	H	0.19	0.063	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
Dimethyl phthalate	<0.19	H	0.19	0.048	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
Di-n-butyl phthalate	<0.19	H	0.19	0.056	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
Di-n-octyl phthalate	<0.19	H	0.19	0.060	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
Fluorene	<0.037	H	0.037	0.0052	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
Hexachlorobenzene	<0.075	H	0.075	0.0086	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
Hexachlorobutadiene	<0.19	H	0.19	0.058	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
Hexachlorocyclopentadiene	<0.75	H	0.75	0.21	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
Hexachloroethane	<0.19	H	0.19	0.056	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
Isophorone	<0.19	H	0.19	0.042	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
<b>Naphthalene</b>	<b>0.43</b>	<b>H</b>	0.037	0.0057	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
Nitrobenzene	<0.037	H	0.037	0.0092	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
N-Nitrosodi-n-propylamine	<0.075	H	0.075	0.045	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
N-Nitrosodiphenylamine	<0.19	H	0.19	0.044	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
Pentachlorophenol	<0.75	H	0.75	0.59	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1
Phenol	<0.19	H	0.19	0.082	mg/Kg	☼	09/30/19 08:04	09/30/19 23:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	67		31 - 143	09/30/19 08:04	09/30/19 23:14	1
2-Fluorobiphenyl	80		43 - 145	09/30/19 08:04	09/30/19 23:14	1
2-Fluorophenol	86		31 - 166	09/30/19 08:04	09/30/19 23:14	1
Nitrobenzene-d5	65		37 - 147	09/30/19 08:04	09/30/19 23:14	1
Phenol-d5	76		30 - 153	09/30/19 08:04	09/30/19 23:14	1
Terphenyl-d14	85		42 - 157	09/30/19 08:04	09/30/19 23:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Anthracene</b>	<b>3.2</b>	<b>H</b>	0.18	0.031	mg/Kg	☼	09/30/19 08:04	10/01/19 11:57	5
<b>Benzo[a]anthracene</b>	<b>9.1</b>	<b>H</b>	0.18	0.025	mg/Kg	☼	09/30/19 08:04	10/01/19 11:57	5
<b>Benzo[a]pyrene</b>	<b>9.3</b>	<b>H</b>	0.18	0.036	mg/Kg	☼	09/30/19 08:04	10/01/19 11:57	5
<b>Benzo[b]fluoranthene</b>	<b>12</b>	<b>H</b>	0.18	0.040	mg/Kg	☼	09/30/19 08:04	10/01/19 11:57	5
<b>Benzo[g,h,i]perylene</b>	<b>4.2</b>	<b>H</b>	0.18	0.060	mg/Kg	☼	09/30/19 08:04	10/01/19 11:57	5
<b>Benzo[k]fluoranthene</b>	<b>4.0</b>	<b>H</b>	0.18	0.055	mg/Kg	☼	09/30/19 08:04	10/01/19 11:57	5
<b>Chrysene</b>	<b>12</b>	<b>H</b>	0.18	0.051	mg/Kg	☼	09/30/19 08:04	10/01/19 11:57	5
<b>Dibenz(a,h)anthracene</b>	<b>1.6</b>	<b>H</b>	0.18	0.036	mg/Kg	☼	09/30/19 08:04	10/01/19 11:57	5
<b>Indeno[1,2,3-cd]pyrene</b>	<b>3.8</b>	<b>H</b>	0.18	0.048	mg/Kg	☼	09/30/19 08:04	10/01/19 11:57	5
<b>Phenanthrene</b>	<b>9.8</b>	<b>H</b>	0.18	0.026	mg/Kg	☼	09/30/19 08:04	10/01/19 11:57	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	81		31 - 143	09/30/19 08:04	10/01/19 11:57	5
2-Fluorobiphenyl	86		43 - 145	09/30/19 08:04	10/01/19 11:57	5
2-Fluorophenol	109		31 - 166	09/30/19 08:04	10/01/19 11:57	5
Nitrobenzene-d5	68		37 - 147	09/30/19 08:04	10/01/19 11:57	5

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B04 Dup**

**Lab Sample ID: 500-170061-5**

Date Collected: 09/13/19 10:45

Matrix: Solid

Date Received: 09/13/19 16:35

Percent Solids: 88.7

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5	74		30 - 153	09/30/19 08:04	10/01/19 11:57	5
Terphenyl-d14	72		42 - 157	09/30/19 08:04	10/01/19 11:57	5

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) - REDL2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	26	H	0.92	0.17	mg/Kg	☼	09/30/19 08:04	10/01/19 14:49	25
Pyrene	21	H	0.92	0.18	mg/Kg	☼	09/30/19 08:04	10/01/19 14:49	25

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	D	31 - 143	09/30/19 08:04	10/01/19 14:49	25
2-Fluorobiphenyl	0	D	43 - 145	09/30/19 08:04	10/01/19 14:49	25
2-Fluorophenol	0	D	31 - 166	09/30/19 08:04	10/01/19 14:49	25
Nitrobenzene-d5	0	D	37 - 147	09/30/19 08:04	10/01/19 14:49	25
Phenol-d5	0	D	30 - 153	09/30/19 08:04	10/01/19 14:49	25
Terphenyl-d14	0	D	42 - 157	09/30/19 08:04	10/01/19 14:49	25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.34	J B	1.0	0.20	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1
Arsenic	8.1		0.51	0.18	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1
Barium	61		0.51	0.058	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1
Beryllium	0.59		0.21	0.048	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1
Boron	16		2.6	0.24	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1
Cadmium	0.28	B	0.10	0.018	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1
Calcium	52000	B	51	8.7	mg/Kg	☼	09/25/19 10:06	09/27/19 00:45	5
Chromium	15		0.51	0.25	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1
Cobalt	13		0.26	0.067	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1
Copper	30	B	0.51	0.14	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1
Iron	16000		10	5.3	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1
Lead	130		0.26	0.12	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1
Magnesium	20000		5.1	2.5	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1
Manganese	270		0.51	0.074	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1
Nickel	31		0.51	0.15	mg/Kg	☼	09/25/19 10:06	09/27/19 00:41	1
Potassium	2600		26	9.1	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1
Selenium	0.61		0.51	0.30	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1
Silver	2.3		0.26	0.066	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1
Sodium	220		51	7.6	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1
Thallium	0.76		0.51	0.26	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1
Vanadium	19		0.26	0.060	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1
Zinc	81		1.0	0.45	mg/Kg	☼	09/25/19 10:06	09/26/19 12:17	1

**Method: 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		09/23/19 08:30	09/23/19 16:56	1
Barium	<0.50		0.50	0.050	mg/L		09/23/19 08:30	09/23/19 16:56	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		09/23/19 08:30	09/23/19 16:56	1
Boron	0.051	J	0.10	0.050	mg/L		09/23/19 08:30	09/23/19 16:56	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		09/23/19 08:30	09/23/19 16:56	1
Calcium	52		2.5	0.50	mg/L		09/23/19 08:30	09/23/19 16:56	1
Chromium	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:56	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B04 Dup**

**Lab Sample ID: 500-170061-5**

**Date Collected: 09/13/19 10:45**

**Matrix: Solid**

**Date Received: 09/13/19 16:35**

**Percent Solids: 88.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:56	1
Iron	<0.40		0.40	0.20	mg/L		09/23/19 08:30	09/23/19 16:56	1
Lead	<0.0075		0.0075	0.0075	mg/L		09/23/19 08:30	09/23/19 16:56	1
Manganese	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:56	1
Nickel	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:56	1
<b>Potassium</b>	<b>3.3</b>		2.5	0.50	mg/L		09/23/19 08:30	09/23/19 16:56	1
Selenium	<0.050		0.050	0.020	mg/L		09/23/19 08:30	09/23/19 16:56	1
Silver	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 16:56	1
<b>Zinc</b>	<b>0.052</b>	<b>J B</b>	0.50	0.020	mg/L		09/23/19 08:30	09/23/19 16:56	1

**Method: 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		09/23/19 08:30	09/24/19 13:12	1
Thallium	<0.0020		0.0020	0.0020	mg/L		09/23/19 08:30	09/24/19 13:12	1

**Method: 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		09/25/19 10:00	09/26/19 10:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.075</b>		0.018	0.0061	mg/Kg	☼	09/25/19 14:35	09/26/19 10:00	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.48		0.48	0.24	mg/Kg	☼	09/25/19 10:15	09/25/19 14:46	1
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			09/20/19 16:06	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B05**

**Lab Sample ID: 500-170061-6**

**Date Collected: 09/13/19 09:45**

**Matrix: Solid**

**Date Received: 09/13/19 16:35**

**Percent Solids: 85.4**

**Method: 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	0.00052	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
1,2-Dichloropropane	<0.0016		0.0016	0.00040	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Acetone	<0.016		0.016	0.0068	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Carbon disulfide	<0.0039		0.0039	0.00081	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Carbon tetrachloride	<0.0016		0.0016	0.00045	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Chlorobenzene	<0.0016		0.0016	0.00058	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Chloroethane	<0.0039	*	0.0039	0.0012	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Chloromethane	<0.0039	*	0.0039	0.0016	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Styrene	<0.0016		0.0016	0.00047	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Toluene	<0.0016		0.0016	0.00039	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00069	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Vinyl chloride	<0.0016		0.0016	0.00069	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	09/14/19 12:55	09/18/19 13:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	09/14/19 12:55	09/18/19 13:41	1
4-Bromofluorobenzene (Surr)	90		75 - 131	09/14/19 12:55	09/18/19 13:41	1
Dibromofluoromethane	86		75 - 126	09/14/19 12:55	09/18/19 13:41	1
Toluene-d8 (Surr)	86		75 - 124	09/14/19 12:55	09/18/19 13:41	1

**Method: 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	0.042	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B05**

**Lab Sample ID: 500-170061-6**

Date Collected: 09/13/19 09:45

Matrix: Solid

Date Received: 09/13/19 16:35

Percent Solids: 85.4

**Method: 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	0.088	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
2,4-Dinitrophenol	<0.78	*	0.78	0.68	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
2-Chloronaphthalene	<0.19	*	0.19	0.043	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
<b>2-Methylnaphthalene</b>	<b>0.015</b>	<b>J</b>	0.078	0.0071	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
<b>Acenaphthene</b>	<b>0.021</b>	<b>J</b>	0.038	0.0069	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
<b>Acenaphthylene</b>	<b>0.031</b>	<b>J</b>	0.038	0.0051	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
<b>Anthracene</b>	<b>0.086</b>		0.038	0.0064	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
<b>Benzo[a]anthracene</b>	<b>0.28</b>		0.038	0.0052	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
<b>Benzo[a]pyrene</b>	<b>0.28</b>		0.038	0.0075	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
<b>Benzo[b]fluoranthene</b>	<b>0.39</b>		0.038	0.0083	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
<b>Benzo[g,h,i]perylene</b>	<b>0.14</b>		0.038	0.012	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
<b>Benzo[k]fluoranthene</b>	<b>0.15</b>		0.038	0.011	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
<b>Chrysene</b>	<b>0.32</b>		0.038	0.011	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
<b>Dibenz(a,h)anthracene</b>	<b>0.037</b>	<b>J</b>	0.038	0.0074	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
Dimethyl phthalate	<0.19	*	0.19	0.050	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
<b>Fluoranthene</b>	<b>0.57</b>		0.038	0.0071	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
<b>Fluorene</b>	<b>0.029</b>	<b>J</b>	0.038	0.0054	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B05**

**Lab Sample ID: 500-170061-6**

Date Collected: 09/13/19 09:45

Matrix: Solid

Date Received: 09/13/19 16:35

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.14</b>		0.038	0.010	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
<b>Naphthalene</b>	<b>0.015</b>	<b>J</b>	0.038	0.0059	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
<b>Phenanthrene</b>	<b>0.45</b>		0.038	0.0054	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
Phenol	<0.19		0.19	0.086	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
<b>Pyrene</b>	<b>0.56</b>		0.038	0.0077	mg/Kg	☼	09/27/19 07:36	09/27/19 22:54	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2,4,6-Tribromophenol	60		31 - 143				09/27/19 07:36	09/27/19 22:54	1
2-Fluorobiphenyl	74		43 - 145				09/27/19 07:36	09/27/19 22:54	1
2-Fluorophenol	102		31 - 166				09/27/19 07:36	09/27/19 22:54	1
Nitrobenzene-d5	64		37 - 147				09/27/19 07:36	09/27/19 22:54	1
Phenol-d5	71		30 - 153				09/27/19 07:36	09/27/19 22:54	1
Terphenyl-d14	82		42 - 157				09/27/19 07:36	09/27/19 22:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.26</b>	<b>J B</b>	1.1	0.21	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Arsenic</b>	<b>7.2</b>		0.55	0.19	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Barium</b>	<b>38</b>		0.55	0.063	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Beryllium</b>	<b>0.70</b>		0.22	0.052	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Boron</b>	<b>16</b>		2.8	0.26	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Cadmium</b>	<b>0.19</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Calcium</b>	<b>24000</b>	<b>B</b>	11	1.9	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Chromium</b>	<b>18</b>		0.55	0.27	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Cobalt</b>	<b>15</b>		0.28	0.072	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Copper</b>	<b>36</b>	<b>B</b>	0.55	0.15	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Iron</b>	<b>20000</b>		11	5.7	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Lead</b>	<b>19</b>		0.28	0.13	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Magnesium</b>	<b>16000</b>		5.5	2.7	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Manganese</b>	<b>250</b>		0.55	0.080	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Nickel</b>	<b>44</b>		0.55	0.16	mg/Kg	☼	09/25/19 10:06	09/27/19 00:57	1
<b>Potassium</b>	<b>3000</b>		28	9.8	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Selenium</b>	<b>0.80</b>		0.55	0.32	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Silver</b>	<b>2.8</b>		0.28	0.071	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Sodium</b>	<b>160</b>		55	8.2	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Thallium</b>	<b>1.2</b>		0.55	0.28	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Vanadium</b>	<b>20</b>		0.28	0.065	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1
<b>Zinc</b>	<b>56</b>		1.1	0.48	mg/Kg	☼	09/25/19 10:06	09/26/19 12:21	1

**Method: 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		09/23/19 08:30	09/23/19 17:00	1
Barium	<0.50		0.50	0.050	mg/L		09/23/19 08:30	09/23/19 17:00	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		09/23/19 08:30	09/23/19 17:00	1
<b>Boron</b>	<b>0.054</b>	<b>J</b>	0.10	0.050	mg/L		09/23/19 08:30	09/23/19 17:00	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

**Client Sample ID: 2615V2-114-B05**

**Lab Sample ID: 500-170061-6**

Date Collected: 09/13/19 09:45

Matrix: Solid

Date Received: 09/13/19 16:35

Percent Solids: 85.4

**Method: 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		09/23/19 08:30	09/23/19 17:00	1
<b>Calcium</b>	<b>17</b>		2.5	0.50	mg/L		09/23/19 08:30	09/23/19 17:00	1
<b>Chromium</b>	<b>0.010</b>	<b>J</b>	0.025	0.010	mg/L		09/23/19 08:30	09/23/19 17:00	1
Cobalt	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 17:00	1
<b>Iron</b>	<b>3.8</b>	<b>F1</b>	0.40	0.20	mg/L		09/23/19 08:30	09/23/19 17:00	1
Lead	<0.0075		0.0075	0.0075	mg/L		09/23/19 08:30	09/23/19 17:00	1
<b>Manganese</b>	<b>0.017</b>	<b>J</b>	0.025	0.010	mg/L		09/23/19 08:30	09/23/19 17:00	1
Nickel	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 17:00	1
<b>Potassium</b>	<b>4.2</b>		2.5	0.50	mg/L		09/23/19 08:30	09/23/19 17:00	1
Selenium	<0.050		0.050	0.020	mg/L		09/23/19 08:30	09/23/19 17:00	1
Silver	<0.025		0.025	0.010	mg/L		09/23/19 08:30	09/23/19 17:00	1
<b>Zinc</b>	<b>0.028</b>	<b>J B</b>	0.50	0.020	mg/L		09/23/19 08:30	09/23/19 17:00	1

**Method: 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		09/23/19 08:30	09/24/19 13:23	1
Thallium	<0.0020		0.0020	0.0020	mg/L		09/23/19 08:30	09/24/19 13:23	1

**Method: 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		09/25/19 10:00	09/26/19 10:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.025</b>		0.019	0.0063	mg/Kg	☼	09/25/19 14:35	09/26/19 10:03	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.46		0.46	0.23	mg/Kg	☼	09/25/19 10:15	09/25/19 14:46	1
<b>pH</b>	<b>7.8</b>		0.2	0.2	SU			09/20/19 16:08	1

# Definitions/Glossary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

### Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

# Accreditation/Certification Summary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-1

## Laboratory: Eurofins TestAmerica, Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	100201	04-30-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
7470A	7470A	Solid	Mercury
8260B	5035	Solid	1,3-Dichloropropene, Total
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



**CHAIN OF CUSTODY RECORD**

Client Contact					Laboratory					Project Name: AE7-23A					COC No.: 1 of 1		
Andrews Engineering, Inc 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact: Colleen Grey email: cgrey@andrews-eng.com					Lab: <b>Test America - Chicago</b> Address: <b>2417 Bond Street</b> <b>University Park, IL 60484</b> Phone: <b>708-534-5200</b> Contact: <b>Dick Wright</b> email: richard.wright@testamericainc.com					Project No.: <u>PTB/WO-184-006/23A</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					Lab Job No.: <u>500-170061</u> Sample Temp: <u>33</u>		
<b>Special Instructions:</b> 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.					<b>ANALYSES</b>										<b>Matrix Key:</b> W: Water S: Soil SL: Sludge S: Sediment L: Leachate DW: Drinking Water OL: Oil O: Other		
Lab ID	Sample ID	Sample Date	Sample Time	Matrix	VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization	Comments
1	2615V2-114-1301	9-13	1025	S	X	X					X	X	X	X	X		
2	2615V2-114-1302	9-13	1015	↓	↓	↓					↓	↓	↓	↓	↓		
3	2615V2-114-1303	9-13	0955	↓	↓	↓					↓	↓	↓	↓	↓		
4	2615V2-114-1304	9-13	1040	↓	↓	↓					↓	↓	↓	↓	↓		
5	2615V2-114-1304 DUP	9-13	1045	↓	↓	↓					↓	↓	↓	↓	↓		
6	2615V2-114-1305	9-13	0945	↓	↓	↓					↓	↓	↓	↓	↓		
7	Trip Blank #1	9/13			X												
Relinquished by: <i>[Signature]</i>					Date/Time: 9/13/19 1445					Received by: <i>[Signature]</i>					Date/Time: 9/13/19 1445		
Relinquished by: <i>[Signature]</i>					Date/Time: 9/13/19 1635					Received by: <i>[Signature]</i>					Date/Time: 9/13/19 1635		
Relinquished by:					Date/Time:					Received by:					Date/Time:		

## ANALYTICAL REPORT

Eurofins TestAmerica, Chicago  
2417 Bond Street  
University Park, IL 60484  
Tel: (708)534-5200

Laboratory Job ID: 500-170061-2  
Client Project/Site: IDOT - AE7-23A

**For:**

Andrews Engineering Inc.  
3300 Ginger Creek Drive  
Springfield, Illinois 62711

Attn: Ms. Colleen Grey



Authorized for release by:  
10/28/2019 11:04:55 AM

Richard Wright, Senior Project Manager  
(708)534-5200  
[richard.wright@testamericainc.com](mailto:richard.wright@testamericainc.com)

### LINKS

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Have a Question?



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*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-2

**Client Sample ID: 2615V2-114-B04 Dup**

**Lab Sample ID: 500-170061-5**

**Date Collected: 09/13/19 10:45**

**Matrix: Solid**

**Date Received: 09/13/19 16:35**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.055		0.0075	0.0075	mg/L		09/24/19 07:47	09/24/19 15:21	1

- 1
- 2
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- 9
- 10
- 11

## Definitions/Glossary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-2

### 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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

# Accreditation/Certification Summary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-23A

Job ID: 500-170061-2

## Laboratory: Eurofins TestAmerica, Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	100201	04-30-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
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- 9
- 10
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