



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 E24-B01, E24-B03, E24-B04 AND E24-B09 WERE SAMPLED AT THE IDOT KENNEDY MAINTENANCE YARD (E24). SEE TABLE 3 AND FIGURE 2 OF THE FINAL PRELIMINARY SITE INVESTIGATION REPORT.

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

EUROFINS/TEST AMERICA ANALYTICAL REPORT - TEST AMERICA JOB ID NUMBER: 500-206450-1.

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

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

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

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

Savo Radulovic  
Printed Name:



\_\_\_\_\_  
Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

Nov 17, 2021  
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
Chloride
Cyanide
Sulfate
<b>TCLP/SPLP Inorganics (mg/L)</b>
Antimony
Barium
Beryllium
Boron
Cadmium
Chromium
Cobalt
Iron
Lead
Manganese
Mercury
Nickel
Selenium
Silver
Thallium
Zinc
Chloride
Cyanide
Sulfate

IDOT Yard E24

Kennedy Maintenance Yard

Sample ID	E24-B01	E24-B03	E24-B04	E24-B09	Maximum Allowable Concentration					
Sample Depth (ft)	0-2	0-2	0-2	0-2	<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	10/7/2021	10/7/2021	10/7/2021	10/7/2021						
PID	0	0	0	0						
Sample pH	8.3	8	7.8	7						
Matrix	Soil	Soil	Soil	Soil						
<b>Semivolatile Organic Compounds (mg/kg)</b>										
Benzo(a)pyrene	ND	0.057	ND	J 0.028	0.09	0.09	0.98	1.3	2.1	
<b>Inorganic Compounds, Total (mg/kg)</b>										
Arsenic	8.7	12	1.3	7.1	6.2	11.3	--	11.3	--	13

## ANALYTICAL REPORT

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

Laboratory Job ID: 500-206450-1  
Client Project/Site: IDOT - AE7-050

**For:**

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

Attn: Ms. Colleen Grey

*Jodie Bracken*

Authorized for release by:  
10/29/2021 3:16:43 PM

Jodie Bracken, Project Management Assistant II  
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### LINKS

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*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 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 - AE7-050

Job ID: 500-206450-1

**Client Sample ID: E24-B01**

**Lab Sample ID: 500-206450-1**

**Date Collected: 10/07/21 09:50**

**Matrix: Solid**

**Date Received: 10/08/21 11:45**

**Percent Solids: 83.6**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
1,1-Dichloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
<b>Acetone</b>	<b>0.032</b>		0.017	0.0075	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Bromoform	<0.0017		0.0017	0.00051	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Vinyl chloride	<0.0017		0.0017	0.00077	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1
Xylenes, Total	<0.0035		0.0035	0.00055	mg/Kg	☼	10/08/21 19:12	10/14/21 16:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 134	10/08/21 19:12	10/14/21 16:22	1
4-Bromofluorobenzene (Surr)	86		75 - 131	10/08/21 19:12	10/14/21 16:22	1
Dibromofluoromethane	103		75 - 126	10/08/21 19:12	10/14/21 16:22	1
Toluene-d8 (Surr)	95		75 - 124	10/08/21 19:12	10/14/21 16:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-050

Job ID: 500-206450-1

**Client Sample ID: E24-B01**

**Lab Sample ID: 500-206450-1**

**Date Collected: 10/07/21 09:50**

**Matrix: Solid**

**Date Received: 10/08/21 11:45**

**Percent Solids: 83.6**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Carbazole	<0.20	+	0.20	0.098	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Fluoranthene	<0.039		0.039	0.0072	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Hexachlorobenzene	<0.079		0.079	0.0090	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-050

Job ID: 500-206450-1

**Client Sample ID: E24-B01**

**Lab Sample ID: 500-206450-1**

**Date Collected: 10/07/21 09:50**

**Matrix: Solid**

**Date Received: 10/08/21 11:45**

**Percent Solids: 83.6**

**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	<0.039		0.039	0.010	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Phenanthrene	<0.039		0.039	0.0054	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	10/15/21 07:07	10/17/21 14:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	85		31 - 143				10/15/21 07:07	10/17/21 14:03	1
2-Fluorobiphenyl	86		43 - 145				10/15/21 07:07	10/17/21 14:03	1
2-Fluorophenol	84		31 - 166				10/15/21 07:07	10/17/21 14:03	1
Nitrobenzene-d5 (Surr)	69		37 - 147				10/15/21 07:07	10/17/21 14:03	1
Phenol-d5	74		30 - 153				10/15/21 07:07	10/17/21 14:03	1
Terphenyl-d14 (Surr)	79		42 - 157				10/15/21 07:07	10/17/21 14:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.67</b>	<b>J B</b>	1.1	0.22	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Arsenic</b>	<b>8.7</b>		0.57	0.20	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Barium</b>	<b>55</b>		0.57	0.065	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Beryllium</b>	<b>0.92</b>		0.23	0.054	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Boron</b>	<b>8.2</b>		2.9	0.27	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Cadmium</b>	<b>0.12</b>	<b>B</b>	0.11	0.021	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Calcium</b>	<b>5700</b>		11	1.9	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Chromium</b>	<b>18</b>		0.57	0.28	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Cobalt</b>	<b>15</b>		0.29	0.075	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Copper</b>	<b>25</b>	<b>B</b>	0.57	0.16	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Iron</b>	<b>21000</b>		11	6.0	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Lead</b>	<b>18</b>		0.29	0.13	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Magnesium</b>	<b>5800</b>		5.7	2.8	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Manganese</b>	<b>610</b>		0.57	0.083	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Nickel</b>	<b>36</b>		0.57	0.17	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Potassium</b>	<b>1700</b>		29	10	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Selenium</b>	<b>0.44</b>	<b>J</b>	0.57	0.34	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Silver</b>	<b>0.40</b>		0.29	0.074	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Sodium</b>	<b>2600</b>		57	8.5	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Thallium</b>	<b>0.36</b>	<b>J</b>	0.57	0.29	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Vanadium</b>	<b>28</b>		0.29	0.068	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1
<b>Zinc</b>	<b>54</b>		1.1	0.50	mg/Kg	☼	10/21/21 10:43	10/22/21 02:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		10/14/21 07:53	10/14/21 22:01	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/14/21 07:53	10/19/21 13:14	1
Chromium	<0.025		0.025	0.010	mg/L		10/14/21 07:53	10/14/21 22:01	1
<b>Iron</b>	<b>0.61</b>		0.40	0.20	mg/L		10/14/21 07:53	10/19/21 13:14	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-050

Job ID: 500-206450-1

**Client Sample ID: E24-B01**

**Lab Sample ID: 500-206450-1**

Date Collected: 10/07/21 09:50

Matrix: Solid

Date Received: 10/08/21 11:45

Percent Solids: 83.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		10/14/21 07:53	10/14/21 22:01	1
<b>Manganese</b>	<b>12</b>		0.025	0.010	mg/L		10/14/21 07:53	10/19/21 13:14	1
<b>Nickel</b>	<b>0.030</b>		0.025	0.010	mg/L		10/14/21 07:53	10/14/21 22:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.099</b>		0.050	0.010	mg/L		10/14/21 07:55	10/15/21 19:22	1
<b>Barium</b>	<b>1.1</b>		0.50	0.050	mg/L		10/14/21 07:55	10/15/21 19:22	1
<b>Beryllium</b>	<b>0.015</b>		0.0040	0.0040	mg/L		10/14/21 07:55	10/15/21 19:22	1
<b>Boron</b>	<b>0.28</b>		0.10	0.050	mg/L		10/14/21 07:55	10/15/21 19:22	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/14/21 07:55	10/15/21 19:22	1
<b>Calcium</b>	<b>28</b>		2.5	0.50	mg/L		10/14/21 07:55	10/15/21 19:22	1
<b>Chromium</b>	<b>0.28</b>		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:22	1
<b>Cobalt</b>	<b>0.12</b>		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:22	1
<b>Iron</b>	<b>260</b>		0.40	0.20	mg/L		10/14/21 07:55	10/15/21 19:22	1
<b>Lead</b>	<b>0.18</b>		0.0075	0.0075	mg/L		10/14/21 07:55	10/15/21 19:22	1
<b>Manganese</b>	<b>3.9</b>		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:22	1
<b>Nickel</b>	<b>0.37</b>		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:22	1
<b>Potassium</b>	<b>49</b>		2.5	0.50	mg/L		10/14/21 07:55	10/15/21 19:22	1
Selenium	<0.050		0.050	0.020	mg/L		10/14/21 07:55	10/15/21 19:22	1
Silver	<0.025		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:22	1
<b>Zinc</b>	<b>0.64</b>		0.50	0.020	mg/L		10/14/21 07:55	10/18/21 16:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		10/14/21 07:53	10/21/21 14:42	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		10/14/21 07:55	10/18/21 22:32	1
<b>Thallium</b>	<b>0.0043</b>		0.0020	0.0020	mg/L		10/14/21 07:55	10/18/21 22:32	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		10/15/21 10:25	10/20/21 10:53	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	0.0061	mg/Kg	✱	10/21/21 14:45	10/22/21 07:32	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.29	^+	0.29	0.14	mg/Kg	✱	10/14/21 15:20	10/15/21 17:12	1
<b>pH</b>	<b>8.3</b>		0.2	0.2	SU			10/13/21 16:54	1
<b>Chloride</b>	<b>590</b>		48	41	mg/Kg	✱	10/18/21 11:20	10/19/21 15:25	20
<b>Sulfate</b>	<b>67</b>		2.4	1.1	mg/Kg	✱	10/18/21 11:20	10/18/21 16:42	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-050

Job ID: 500-206450-1

**Client Sample ID: E24-B03**

**Lab Sample ID: 500-206450-3**

**Date Collected: 10/07/21 10:10**

**Matrix: Solid**

**Date Received: 10/08/21 11:45**

**Percent Solids: 80.4**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00065	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00087	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
1,1-Dichloroethane	<0.0020		0.0020	0.00070	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
1,1-Dichloroethene	<0.0020		0.0020	0.00070	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
1,2-Dichloroethane	<0.0051		0.0051	0.0016	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
1,2-Dichloropropane	<0.0020		0.0020	0.00053	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00071	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
<b>2-Butanone (MEK)</b>	<b>0.058</b>		0.0051	0.0023	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
2-Hexanone	<0.0051		0.0051	0.0016	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
4-Methyl-2-pentanone (MIBK)	<0.0051		0.0051	0.0015	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Benzene	<0.0020		0.0020	0.00052	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Bromoform	<0.0020		0.0020	0.00059	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Bromomethane	<0.0051		0.0051	0.0019	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Carbon disulfide	<0.0051		0.0051	0.0011	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Carbon tetrachloride	<0.0020		0.0020	0.00059	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Chlorobenzene	<0.0020		0.0020	0.00075	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Chloroethane	<0.0051		0.0051	0.0015	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Chloroform	<0.0020		0.0020	0.00071	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Chloromethane	<0.0051		0.0051	0.0020	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00057	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
cis-1,3-Dichloropropane	<0.0020		0.0020	0.00061	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Dibromochloromethane	<0.0020		0.0020	0.00066	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Ethylbenzene	<0.0020		0.0020	0.00097	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00060	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Methylene Chloride	<0.0051		0.0051	0.0020	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Styrene	<0.0020		0.0020	0.00061	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Tetrachloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00090	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
trans-1,3-Dichloropropane	<0.0020		0.0020	0.00071	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Trichloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Vinyl chloride	<0.0020		0.0020	0.00090	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1
Xylenes, Total	<0.0041		0.0041	0.00065	mg/Kg	☼	10/08/21 19:12	10/14/21 17:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 134	10/08/21 19:12	10/14/21 17:13	1
4-Bromofluorobenzene (Surr)	97		75 - 131	10/08/21 19:12	10/14/21 17:13	1
Dibromofluoromethane	99		75 - 126	10/08/21 19:12	10/14/21 17:13	1
Toluene-d8 (Surr)	102		75 - 124	10/08/21 19:12	10/14/21 17:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.65		0.65	0.11	mg/Kg	☼	10/07/21 10:10	10/20/21 18:28	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		75 - 126	10/07/21 10:10	10/20/21 18:28	50
4-Bromofluorobenzene (Surr)	85		72 - 124	10/07/21 10:10	10/20/21 18:28	50
Dibromofluoromethane	90		75 - 120	10/07/21 10:10	10/20/21 18:28	50

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-050

Job ID: 500-206450-1

**Client Sample ID: E24-B03**

**Lab Sample ID: 500-206450-3**

Date Collected: 10/07/21 10:10

Matrix: Solid

Date Received: 10/08/21 11:45

Percent Solids: 80.4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		75 - 120	10/07/21 10:10	10/20/21 18:28	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
1,2-Dichlorobenzene	<0.20	F1	0.20	0.047	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
1,3-Dichlorobenzene	<0.20	F2 F1	0.20	0.044	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
1,4-Dichlorobenzene	<0.20	F1	0.20	0.050	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
2,2'-oxybis[1-chloropropane]	<0.20	F2	0.20	0.045	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
2,4-Dimethylphenol	<0.39	F1	0.39	0.15	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
2,4-Dinitrophenol	<0.79	F1	0.79	0.69	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
2-Chlorophenol	<0.20	F1	0.20	0.067	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
<b>2-Methylnaphthalene</b>	<b>0.038</b>	<b>J F1</b>	0.079	0.0072	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
2-Methylphenol	<0.20	F2 F1	0.20	0.063	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
2-Nitrophenol	<0.39	F1	0.39	0.092	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
3 & 4 Methylphenol	<0.20	F2	0.20	0.065	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
3,3'-Dichlorobenzidine	<0.20	F1	0.20	0.055	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
4,6-Dinitro-2-methylphenol	<0.79	F1	0.79	0.31	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
4-Chloroaniline	<0.79	F1	0.79	0.18	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
4-Nitrophenol	<0.79	F2	0.79	0.37	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
<b>Acenaphthene</b>	<b>0.033</b>	<b>J</b>	0.039	0.0070	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
<b>Anthracene</b>	<b>0.025</b>	<b>J</b>	0.039	0.0065	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
<b>Benzo[a]anthracene</b>	<b>0.054</b>		0.039	0.0052	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
<b>Benzo[a]pyrene</b>	<b>0.057</b>	<b>*3</b>	0.039	0.0075	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
<b>Benzo[b]fluoranthene</b>	<b>0.11</b>	<b>*3</b>	0.039	0.0084	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
<b>Benzo[g,h,i]perylene</b>	<b>0.020</b>	<b>J F1 *3</b>	0.039	0.013	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
<b>Benzo[k]fluoranthene</b>	<b>0.037</b>	<b>J *3</b>	0.039	0.011	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
Bis(2-chloroethoxy)methane	<0.20	F2 F1	0.20	0.040	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
Carbazole	<0.20	+	0.20	0.097	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
<b>Chrysene</b>	<b>0.074</b>		0.039	0.011	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
<b>Dibenz(a,h)anthracene</b>	<b>0.013</b>	<b>J F1 *3</b>	0.039	0.0075	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-050

Job ID: 500-206450-1

**Client Sample ID: E24-B03**

**Lab Sample ID: 500-206450-3**

Date Collected: 10/07/21 10:10

Matrix: Solid

Date Received: 10/08/21 11:45

Percent Solids: 80.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
Di-n-octyl phthalate	<0.20	F1	0.20	0.064	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
<b>Fluoranthene</b>	<b>0.089</b>		0.039	0.0072	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
Hexachlorobenzene	<0.079		0.079	0.0090	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
Hexachlorocyclopentadiene	<0.79	F1	0.79	0.22	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
Hexachloroethane	<0.20	F2 F1	0.20	0.059	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.028</b>	<b>J F1 *3</b>	0.039	0.010	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
<b>Naphthalene</b>	<b>0.018</b>	<b>J</b>	0.039	0.0060	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
N-Nitrosodi-n-propylamine	<0.079	F2 F1	0.079	0.048	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
<b>Phenanthrene</b>	<b>0.055</b>		0.039	0.0054	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
Phenol	<0.20	F1	0.20	0.087	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1
<b>Pyrene</b>	<b>0.12</b>		0.039	0.0077	mg/Kg	☼	10/15/21 07:07	10/17/21 14:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	93		31 - 143	10/15/21 07:07	10/17/21 14:45	1
2-Fluorobiphenyl	95		43 - 145	10/15/21 07:07	10/17/21 14:45	1
2-Fluorophenol	87		31 - 166	10/15/21 07:07	10/17/21 14:45	1
Nitrobenzene-d5 (Surr)	73		37 - 147	10/15/21 07:07	10/17/21 14:45	1
Phenol-d5	88		30 - 153	10/15/21 07:07	10/17/21 14:45	1
Terphenyl-d14 (Surr)	99		42 - 157	10/15/21 07:07	10/17/21 14:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.72</b>	<b>J B</b>	1.1	0.22	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
<b>Arsenic</b>	<b>12</b>		0.57	0.19	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
<b>Barium</b>	<b>87</b>		0.57	0.065	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
<b>Beryllium</b>	<b>0.91</b>		0.23	0.053	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
<b>Boron</b>	<b>17</b>		2.8	0.27	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
<b>Cadmium</b>	<b>0.30</b>	<b>B</b>	0.11	0.021	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
<b>Calcium</b>	<b>4200</b>		11	1.9	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
<b>Chromium</b>	<b>17</b>		0.57	0.28	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
<b>Cobalt</b>	<b>13</b>		0.28	0.075	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
<b>Copper</b>	<b>33</b>	<b>B</b>	0.57	0.16	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
<b>Iron</b>	<b>19000</b>		11	5.9	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
<b>Lead</b>	<b>83</b>		0.28	0.13	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
<b>Magnesium</b>	<b>3300</b>		5.7	2.8	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
<b>Manganese</b>	<b>500</b>		0.57	0.083	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
<b>Nickel</b>	<b>28</b>		0.57	0.17	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
<b>Potassium</b>	<b>2200</b>		28	10	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
<b>Selenium</b>	<b>0.46</b>	<b>J</b>	0.57	0.34	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
<b>Silver</b>	<b>0.43</b>		0.28	0.073	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
<b>Sodium</b>	<b>2300</b>		57	8.4	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
<b>Thallium</b>	<b>0.36</b>	<b>J</b>	0.57	0.28	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-050

Job ID: 500-206450-1

**Client Sample ID: E24-B03**

**Lab Sample ID: 500-206450-3**

Date Collected: 10/07/21 10:10

Matrix: Solid

Date Received: 10/08/21 11:45

Percent Solids: 80.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	26		0.28	0.067	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1
Zinc	120		1.1	0.50	mg/Kg	☼	10/21/21 10:43	10/22/21 02:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.022	J	0.050	0.010	mg/L		10/14/21 07:53	10/14/21 22:08	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/14/21 07:53	10/19/21 13:28	1
Chromium	<0.025		0.025	0.010	mg/L		10/14/21 07:53	10/14/21 22:08	1
Iron	1.5		0.40	0.20	mg/L		10/14/21 07:53	10/19/21 13:28	1
Lead	0.020		0.0075	0.0075	mg/L		10/14/21 07:53	10/14/21 22:08	1
Manganese	9.2		0.025	0.010	mg/L		10/14/21 07:53	10/19/21 13:28	1
Nickel	0.038		0.025	0.010	mg/L		10/14/21 07:53	10/14/21 22:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.064		0.050	0.010	mg/L		10/14/21 07:55	10/15/21 19:29	1
Barium	0.65		0.50	0.050	mg/L		10/14/21 07:55	10/15/21 19:29	1
Beryllium	0.0068		0.0040	0.0040	mg/L		10/14/21 07:55	10/15/21 19:29	1
Boron	0.40		0.10	0.050	mg/L		10/14/21 07:55	10/15/21 19:29	1
Cadmium	0.0020	J	0.0050	0.0020	mg/L		10/14/21 07:55	10/15/21 19:29	1
Calcium	22		2.5	0.50	mg/L		10/14/21 07:55	10/15/21 19:29	1
Chromium	0.14		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:29	1
Cobalt	0.049		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:29	1
Iron	120		0.40	0.20	mg/L		10/14/21 07:55	10/15/21 19:29	1
Lead	0.27		0.0075	0.0075	mg/L		10/14/21 07:55	10/15/21 19:29	1
Manganese	1.1		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:29	1
Nickel	0.13		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:29	1
Potassium	28		2.5	0.50	mg/L		10/14/21 07:55	10/15/21 19:29	1
Selenium	<0.050		0.050	0.020	mg/L		10/14/21 07:55	10/15/21 19:29	1
Silver	<0.025		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:29	1
Zinc	0.53		0.50	0.020	mg/L		10/14/21 07:55	10/19/21 11:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		10/14/21 07:53	10/21/21 14:43	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		10/14/21 07:55	10/18/21 22:39	1
Thallium	0.0025		0.0020	0.0020	mg/L		10/14/21 07:55	10/18/21 22:39	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		10/15/21 10:25	10/20/21 10:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.067		0.019	0.0064	mg/Kg	☼	10/21/21 14:45	10/22/21 07:37	1



# Client Sample Results

Client: Andrews Engineering Inc.  
 Project/Site: IDOT - AE7-050

Job ID: 500-206450-1

**Client Sample ID: E24-B03**  
**Date Collected: 10/07/21 10:10**  
**Date Received: 10/08/21 11:45**

**Lab Sample ID: 500-206450-3**  
**Matrix: Solid**  
**Percent Solids: 80.4**

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.59		0.27	0.13	mg/Kg	☼	10/18/21 11:16	10/18/21 13:17	1
pH	8.0		0.2	0.2	SU			10/13/21 16:59	1
Chloride	1200		62	52	mg/Kg	☼	10/18/21 11:20	10/19/21 08:39	25
Sulfate	43		2.5	1.2	mg/Kg	☼	10/18/21 11:20	10/18/21 17:33	1

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

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-050

Job ID: 500-206450-1

**Client Sample ID: E24-B04**

**Lab Sample ID: 500-206450-4**

**Date Collected: 10/07/21 10:20**

**Matrix: Solid**

**Date Received: 10/08/21 11:45**

**Percent Solids: 82.4**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00085	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
1,1-Dichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
1,1-Dichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
1,2-Dichloroethane	<0.0050		0.0050	0.0015	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
<b>2-Butanone (MEK)</b>	<b>0.023</b>		0.0050	0.0022	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
2-Hexanone	<0.0050		0.0050	0.0015	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
<b>Acetone</b>	<b>0.097</b>		0.020	0.0086	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
<b>Benzene</b>	<b>0.0011</b>	J	0.0020	0.00051	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
Chlorobenzene	<0.0020		0.0020	0.00073	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
Ethylbenzene	<0.0020		0.0020	0.00095	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00058	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
Toluene	<0.0020		0.0020	0.00050	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00088	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
Trichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
Vinyl chloride	<0.0020		0.0020	0.00088	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1
Xylenes, Total	<0.0040		0.0040	0.00063	mg/Kg	☼	10/08/21 19:12	10/14/21 17:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		70 - 134	10/08/21 19:12	10/14/21 17:39	1
4-Bromofluorobenzene (Surr)	92		75 - 131	10/08/21 19:12	10/14/21 17:39	1
Dibromofluoromethane	99		75 - 126	10/08/21 19:12	10/14/21 17:39	1
Toluene-d8 (Surr)	99		75 - 124	10/08/21 19:12	10/14/21 17:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-050

Job ID: 500-206450-1

**Client Sample ID: E24-B04**

**Lab Sample ID: 500-206450-4**

**Date Collected: 10/07/21 10:20**

**Matrix: Solid**

**Date Received: 10/08/21 11:45**

**Percent Solids: 82.4**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
2-Methylnaphthalene	<0.081		0.081	0.0074	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Benzo[a]pyrene	<0.040	*3	0.040	0.0078	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Benzo[b]fluoranthene	<0.040	*3	0.040	0.0087	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Benzo[g,h,i]perylene	<0.040	*3	0.040	0.013	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Benzo[k]fluoranthene	<0.040	*3	0.040	0.012	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Carbazole	<0.20	*+	0.20	0.10	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Dibenz(a,h)anthracene	<0.040	*3	0.040	0.0078	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-050

Job ID: 500-206450-1

**Client Sample ID: E24-B04**

**Lab Sample ID: 500-206450-4**

**Date Collected: 10/07/21 10:20**

**Matrix: Solid**

**Date Received: 10/08/21 11:45**

**Percent Solids: 82.4**

## 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	<0.040	*3	0.040	0.010	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Phenanthrene	<0.040		0.040	0.0056	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Pyrene	<0.040		0.040	0.0080	mg/Kg	☼	10/15/21 07:07	10/17/21 16:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	85		31 - 143				10/15/21 07:07	10/17/21 16:08	1
2-Fluorobiphenyl	94		43 - 145				10/15/21 07:07	10/17/21 16:08	1
2-Fluorophenol	83		31 - 166				10/15/21 07:07	10/17/21 16:08	1
Nitrobenzene-d5 (Surr)	71		37 - 147				10/15/21 07:07	10/17/21 16:08	1
Phenol-d5	70		30 - 153				10/15/21 07:07	10/17/21 16:08	1
Terphenyl-d14 (Surr)	122		42 - 157				10/15/21 07:07	10/17/21 16:08	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.64	J B	1.2	0.23	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Arsenic	7.1		0.60	0.20	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Barium	79		0.60	0.068	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Beryllium	0.91		0.24	0.056	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Boron	12		3.0	0.28	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Cadmium	0.064	J B	0.12	0.022	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Calcium	7000		12	2.0	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Chromium	17		0.60	0.30	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Cobalt	12		0.30	0.078	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Copper	25	B	0.60	0.17	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Iron	19000		12	6.2	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Lead	17		0.30	0.14	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Magnesium	6700		6.0	3.0	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Manganese	220		0.60	0.087	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Nickel	30		0.60	0.17	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Potassium	2000		30	11	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Selenium	<0.60		0.60	0.35	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Silver	0.41		0.30	0.077	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Sodium	3300		60	8.9	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Vanadium	24		0.30	0.071	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1
Zinc	55		1.2	0.53	mg/Kg	☼	10/21/21 10:43	10/22/21 02:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		10/14/21 07:53	10/14/21 22:11	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/14/21 07:53	10/19/21 13:31	1
Chromium	<0.025		0.025	0.010	mg/L		10/14/21 07:53	10/14/21 22:11	1
Iron	0.88		0.40	0.20	mg/L		10/14/21 07:53	10/19/21 13:31	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-050

Job ID: 500-206450-1

**Client Sample ID: E24-B04**

**Lab Sample ID: 500-206450-4**

Date Collected: 10/07/21 10:20

Matrix: Solid

Date Received: 10/08/21 11:45

Percent Solids: 82.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		10/14/21 07:53	10/14/21 22:11	1
<b>Manganese</b>	<b>5.4</b>		0.025	0.010	mg/L		10/14/21 07:53	10/19/21 13:31	1
<b>Nickel</b>	<b>0.024</b>	<b>J</b>	0.025	0.010	mg/L		10/14/21 07:53	10/14/21 22:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.091</b>		0.050	0.010	mg/L		10/14/21 07:55	10/15/21 19:32	1
<b>Barium</b>	<b>1.6</b>		0.50	0.050	mg/L		10/14/21 07:55	10/15/21 19:32	1
<b>Beryllium</b>	<b>0.016</b>		0.0040	0.0040	mg/L		10/14/21 07:55	10/15/21 19:32	1
<b>Boron</b>	<b>0.36</b>		0.10	0.050	mg/L		10/14/21 07:55	10/15/21 19:32	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/14/21 07:55	10/15/21 19:32	1
<b>Calcium</b>	<b>21</b>		2.5	0.50	mg/L		10/14/21 07:55	10/15/21 19:32	1
<b>Chromium</b>	<b>0.31</b>		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:32	1
<b>Cobalt</b>	<b>0.10</b>		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:32	1
<b>Iron</b>	<b>280</b>		0.40	0.20	mg/L		10/14/21 07:55	10/15/21 19:32	1
<b>Lead</b>	<b>0.16</b>		0.0075	0.0075	mg/L		10/14/21 07:55	10/15/21 19:32	1
<b>Manganese</b>	<b>2.4</b>		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:32	1
<b>Nickel</b>	<b>0.34</b>		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:32	1
<b>Potassium</b>	<b>62</b>		2.5	0.50	mg/L		10/14/21 07:55	10/15/21 19:32	1
Selenium	<0.050		0.050	0.020	mg/L		10/14/21 07:55	10/15/21 19:32	1
Silver	<0.025		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:32	1
<b>Zinc</b>	<b>0.83</b>		0.50	0.020	mg/L		10/14/21 07:55	10/19/21 11:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		10/14/21 07:53	10/21/21 14:44	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		10/14/21 07:55	10/18/21 22:42	1
<b>Thallium</b>	<b>0.0049</b>		0.0020	0.0020	mg/L		10/14/21 07:55	10/18/21 22:42	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		10/15/21 10:25	10/20/21 10:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.051</b>		0.018	0.0060	mg/Kg	✱	10/21/21 14:45	10/22/21 07:39	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.28	^+	0.28	0.14	mg/Kg	✱	10/14/21 15:20	10/15/21 17:18	1
<b>pH</b>	<b>7.8</b>		0.2	0.2	SU			10/13/21 17:02	1
<b>Chloride</b>	<b>2300</b>		230	190	mg/Kg	✱	10/18/21 11:20	10/19/21 08:52	100
<b>Sulfate</b>	<b>21</b>		2.3	1.1	mg/Kg	✱	10/18/21 11:20	10/18/21 17:45	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-050

Job ID: 500-206450-1

**Client Sample ID: E24-B09**

**Lab Sample ID: 500-206450-9**

**Date Collected: 10/07/21 11:10**

**Matrix: Solid**

**Date Received: 10/08/21 11:45**

**Percent Solids: 81.5**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00079	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
1,2-Dichloropropane	<0.0018		0.0018	0.00048	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00065	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
<b>2-Butanone (MEK)</b>	<b>0.028</b>		0.0046	0.0020	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
<b>4-Methyl-2-pentanone (MIBK)</b>	<b>0.0029 J</b>		0.0046	0.0014	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
<b>Acetone</b>	<b>0.18</b>		0.018	0.0080	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Bromoform	<0.0018		0.0018	0.00054	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Carbon disulfide	<0.0046		0.0046	0.00096	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Chlorobenzene	<0.0018		0.0018	0.00068	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Chloroform	<0.0018		0.0018	0.00064	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Chloromethane	<0.0046		0.0046	0.0018	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Ethylbenzene	<0.0018		0.0018	0.00088	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Styrene	<0.0018		0.0018	0.00056	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Tetrachloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00065	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	10/08/21 19:12	10/15/21 13:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 134	10/08/21 19:12	10/15/21 13:18	1
4-Bromofluorobenzene (Surr)	86		75 - 131	10/08/21 19:12	10/15/21 13:18	1
Dibromofluoromethane	104		75 - 126	10/08/21 19:12	10/15/21 13:18	1
Toluene-d8 (Surr)	92		75 - 124	10/08/21 19:12	10/15/21 13:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1

Eurofins TestAmerica, Chicago



# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-050

Job ID: 500-206450-1

**Client Sample ID: E24-B09**

**Lab Sample ID: 500-206450-9**

**Date Collected: 10/07/21 11:10**

**Matrix: Solid**

**Date Received: 10/08/21 11:45**

**Percent Solids: 81.5**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
2,4-Dinitrophenol	<0.81		0.81	0.70	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
2-Methylnaphthalene	<0.081		0.081	0.0074	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
<b>Benzo[a]anthracene</b>	<b>0.026</b>	<b>J</b>	0.040	0.0054	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
<b>Benzo[a]pyrene</b>	<b>0.028</b>	<b>J</b>	0.040	0.0077	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
<b>Benzo[b]fluoranthene</b>	<b>0.032</b>	<b>J</b>	0.040	0.0086	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Benzofluoranthene	<0.040		0.040	0.013	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
<b>Benzo[k]fluoranthene</b>	<b>0.013</b>	<b>J</b>	0.040	0.012	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Carbazole	<0.20	*+	0.20	0.10	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
<b>Chrysene</b>	<b>0.031</b>	<b>J</b>	0.040	0.011	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
<b>Fluoranthene</b>	<b>0.056</b>		0.040	0.0074	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-050

Job ID: 500-206450-1

**Client Sample ID: E24-B09**

**Lab Sample ID: 500-206450-9**

Date Collected: 10/07/21 11:10

Matrix: Solid

Date Received: 10/08/21 11:45

Percent Solids: 81.5

## 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>0.011</b>	<b>J</b>	0.040	0.010	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
<b>Naphthalene</b>	<b>0.0086</b>	<b>J</b>	0.040	0.0062	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
<b>Phenanthrene</b>	<b>0.025</b>	<b>J</b>	0.040	0.0056	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
<b>Pyrene</b>	<b>0.041</b>		0.040	0.0079	mg/Kg	☼	10/15/21 07:07	10/20/21 13:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	99		31 - 143				10/15/21 07:07	10/20/21 13:42	1
2-Fluorobiphenyl	89		43 - 145				10/15/21 07:07	10/20/21 13:42	1
2-Fluorophenol	120		31 - 166				10/15/21 07:07	10/20/21 13:42	1
Nitrobenzene-d5 (Surr)	86		37 - 147				10/15/21 07:07	10/20/21 13:42	1
Phenol-d5	141		30 - 153				10/15/21 07:07	10/20/21 13:42	1
Terphenyl-d14 (Surr)	94		42 - 157				10/15/21 07:07	10/20/21 13:42	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.69</b>	<b>J B</b>	1.2	0.24	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
<b>Arsenic</b>	<b>6.2</b>		0.61	0.21	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
<b>Barium</b>	<b>84</b>		0.61	0.069	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
<b>Beryllium</b>	<b>1.1</b>		0.24	0.057	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
<b>Boron</b>	<b>11</b>		3.0	0.28	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
<b>Cadmium</b>	<b>0.11</b>	<b>J B</b>	0.12	0.022	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
<b>Calcium</b>	<b>3200</b>		12	2.1	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
<b>Chromium</b>	<b>21</b>		0.61	0.30	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
<b>Cobalt</b>	<b>12</b>		0.30	0.079	mg/Kg	☼	10/21/21 10:43	10/22/21 12:20	1
<b>Copper</b>	<b>31</b>	<b>B</b>	0.61	0.17	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
<b>Iron</b>	<b>21000</b>		12	6.3	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
<b>Lead</b>	<b>31</b>		0.30	0.14	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
<b>Magnesium</b>	<b>4600</b>		6.1	3.0	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
<b>Manganese</b>	<b>190</b>		0.61	0.088	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
<b>Nickel</b>	<b>34</b>		0.61	0.18	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
<b>Potassium</b>	<b>2200</b>		30	11	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
<b>Selenium</b>	<b>0.39</b>	<b>J</b>	0.61	0.36	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
<b>Silver</b>	<b>0.48</b>		0.30	0.078	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
<b>Sodium</b>	<b>4400</b>		61	9.0	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
Thallium	<0.61		0.61	0.30	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
<b>Vanadium</b>	<b>28</b>		0.30	0.071	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1
<b>Zinc</b>	<b>73</b>		1.2	0.53	mg/Kg	☼	10/21/21 10:43	10/22/21 02:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		10/14/21 07:53	10/14/21 22:38	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/14/21 07:53	10/19/21 13:47	1
Chromium	<0.025		0.025	0.010	mg/L		10/14/21 07:53	10/14/21 22:38	1
<b>Iron</b>	<b>1.4</b>		0.40	0.20	mg/L		10/14/21 07:53	10/19/21 13:47	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-050

Job ID: 500-206450-1

**Client Sample ID: E24-B09**

**Lab Sample ID: 500-206450-9**

Date Collected: 10/07/21 11:10

Matrix: Solid

Date Received: 10/08/21 11:45

Percent Solids: 81.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		10/14/21 07:53	10/14/21 22:38	1
Manganese	3.0		0.025	0.010	mg/L		10/14/21 07:53	10/19/21 13:47	1
Nickel	0.015	J	0.025	0.010	mg/L		10/14/21 07:53	10/14/21 22:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.051		0.050	0.010	mg/L		10/14/21 07:55	10/15/21 19:55	1
Barium	0.97		0.50	0.050	mg/L		10/14/21 07:55	10/15/21 19:55	1
Beryllium	0.011		0.0040	0.0040	mg/L		10/14/21 07:55	10/15/21 19:55	1
Boron	0.33		0.10	0.050	mg/L		10/14/21 07:55	10/15/21 19:55	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/14/21 07:55	10/15/21 19:55	1
Calcium	20		2.5	0.50	mg/L		10/14/21 07:55	10/15/21 19:55	1
Chromium	0.22		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:55	1
Cobalt	0.063		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:55	1
Iron	180		0.40	0.20	mg/L		10/14/21 07:55	10/15/21 19:55	1
Lead	0.10		0.0075	0.0075	mg/L		10/14/21 07:55	10/15/21 19:55	1
Manganese	1.0		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:55	1
Nickel	0.21		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:55	1
Potassium	43		2.5	0.50	mg/L		10/14/21 07:55	10/15/21 19:55	1
Selenium	<0.050		0.050	0.020	mg/L		10/14/21 07:55	10/15/21 19:55	1
Silver	<0.025		0.025	0.010	mg/L		10/14/21 07:55	10/15/21 19:55	1
Zinc	0.56		0.50	0.020	mg/L		10/14/21 07:55	10/19/21 11:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		10/14/21 07:53	10/21/21 14:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	F1	0.0060	0.0060	mg/L		10/14/21 07:55	10/18/21 23:06	1
Thallium	0.0039		0.0020	0.0020	mg/L		10/14/21 07:55	10/18/21 23:06	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		10/15/21 10:25	10/20/21 11:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032		0.020	0.0066	mg/Kg	☼	10/21/21 14:45	10/22/21 08:00	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.17	J	0.27	0.13	mg/Kg	☼	10/20/21 13:21	10/20/21 16:12	1
pH	7.0		0.2	0.2	SU			10/13/21 17:14	1
Chloride	3600		240	210	mg/Kg	☼	10/18/21 11:20	10/19/21 11:11	100
Sulfate	15		2.4	1.1	mg/Kg	☼	10/18/21 11:20	10/18/21 19:27	1

# Definitions/Glossary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-050

Job ID: 500-206450-1

## Qualifiers

### GC/MS VOA

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

### GC/MS Semi VOA

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

### Metals

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

### General Chemistry

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

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

Eurofins TestAmerica, Chicago

# Definitions/Glossary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-050

Job ID: 500-206450-1

## Glossary (Continued)

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

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# Accreditation/Certification Summary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-050

Job ID: 500-206450-1

## Laboratory: Eurofins TestAmerica, Chicago

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

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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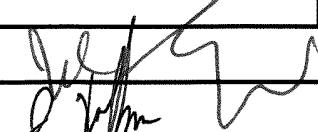
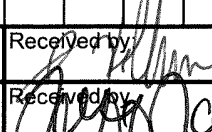
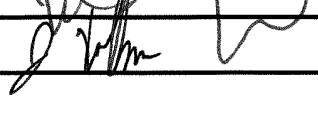
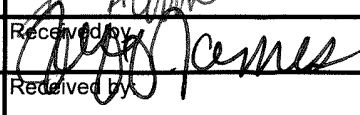

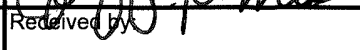
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# CHAIN OF CUSTODY RECORD



<b>Client Contact</b>	<b>Laboratory</b>	Project Name <u>AE7-050A</u> 500-206450 COC	COC No <u>1</u> of <u>2</u>
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 <u>richard.wright@testamericainc.com</u>	Project No <u>PTB / W0 184-006 / 050A</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>500-206450</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 <u>chloride/sulfate</u> *** If total cyanide exceeds MAC, run ASTM D3987 (Neutral Leach) cyanide <u>✓</u>		<b>Analyses</b>	Sample Temp <u>1.1, 3.2, 3.3</u>
		Sampler: <u>A. Buscaglia</u>	<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	ANALYSES														Comments			
					VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization	Chloride ***	Sulfate ***				
1	E24-B01	1017	0950	S	X	X						X	X	X	X	X		X	X			
2	E24-B02	↓	1000	↓																		
3	E24-B03		1010																			
4	E24-B04		1020																			
5	E24-B05		1030																			
6	E24-B06		1040																			
7	E24-B07		1050																			
8	E24-B08		1100																			
9	E24-B09		1110																			
10	E24-B10		1120																			
11	E24-B10 DUP		1130																			

Relinquished by 	Date/Time <u>10/8/21 10:50</u>	Received by 	Date/Time <u>10/8/21 10:50</u>
Relinquished by 	Date/Time <u>10/8/21 11:45</u>	Received by 	Date/Time <u>10/8/21 11:45</u>
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