



Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • IL • 62794-9276

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: IL HSR Union Pacific RR Office Phone Number, if available: _____

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

32625 S. IL 53

City: Wilmington State: IL Zip Code: 60481

County: Will Township: Wilmington

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

Latitude: 41.29213 Longitude: -88.17600

(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: 1971100003 BOW: _____ BOA: _____

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: 847-705-4101

Contact: Sam Mead

Email, if available: Sam.Mead@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: 847-705-4101

Contact: Sam Mead

Email, if available: Sam.Mead@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 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.

Project Name: IL HSR Union Pacific RR

Latitude: 41.29213 Longitude: -88.17600

Uncontaminated Site 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 approximately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS 2965-76-B03 THROUGH -B07 AND -B09 WERE SAMPLED ADJACENT TO SITE 2965-76. 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]:

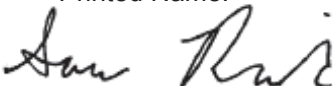
TESTAMERICA ANALYTICAL REPORT - JOB ID NUMBER: 500-103200-7

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 55.51(a) 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:

January 15, 2016
 Date:



P.E. or L.P.G. Seal:

THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

Analytical Parameters

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

THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

Analytical Parameters

| Semivolatile Organic Compounds (mg/kg) (cont.) |
|---|
| Bis(2-chloroethoxy)methane |
| Bis(2-chloroethyl)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 |
| N-Nitrosodi-n-propylamine |
| N-Nitrosodiphenylamine |
| Pentachlorophenol |
| Phenanthrene |
| Phenol |
| Pyrene |
| Inorganic Compounds, Total (mg/kg) |
| Antimony |
| Arsenic |
| Barium |
| Beryllium |
| Boron |
| Cadmium |
| Chromium |
| Cobalt |
| Copper |
| Iron |
| Lead |
| Magnesium |
| Manganese |
| Mercury |
| Nickel |
| Selenium |
| Silver |
| Thallium |
| Vanadium |
| Zinc |
| TCLP/SPLP Inorganics (mg/L) |
| Antimony |
| Barium |
| Beryllium |
| Boron |
| Cadmium |
| Chromium |
| Cobalt |
| Iron |
| Lead |
| Manganese |
| Mercury |
| Nickel |
| Selenium |
| Silver |
| Thallium |
| Zinc |

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.

**ISGS Site 2965-76
Commercial Building**

| | | | | | | | | | |
|--|-------------|-------------|-------------|---------------------------------|--|---|---|---|--|
| Sample ID | 2965-76-B03 | 2965-76-B04 | 2965-76-B05 | ¹ Most Stringent MAC | ² Outside a Populated Area MAC | ³ Populated non-Metropolitan Statistical Area MAC | ⁴ Within Chicago Corporate Limits MAC | ⁵ Metropolitan Statistical Area MAC | ⁶ Class I Soil TCLP/SPLP Comparisons Only |
| Sample Depth (ft) | 0-2 | 0-2 | 0-2 | | | | | | |
| Sample Date | 10/28/2015 | 10/28/2015 | 10/28/2015 | | | | | | |
| PID | 0 | 0 | 0 | | | | | | |
| Sample pH | 7.52 | 7.8 | 7.4 | | | | | | |
| Matrix | Soil | Soil | Soil | | | | | | |
| No Contaminants of Concern Noted. | | | | | | | | | |

| | | | | | | | | | |
|--|-------------|-------------|-------------|---------------------------------|--|---|---|---|--|
| Sample ID | 2965-76-B06 | 2965-76-B07 | 2965-76-B09 | ¹ Most Stringent MAC | ² Outside a Populated Area MAC | ³ Populated non-Metropolitan Statistical Area MAC | ⁴ Within Chicago Corporate Limits MAC | ⁵ Metropolitan Statistical Area MAC | ⁶ Class I Soil TCLP/SPLP Comparisons Only |
| Sample Depth (ft) | 0-2 | 0-2 | 0-2 | | | | | | |
| Sample Date | 10/28/2015 | 10/28/2015 | 10/28/2015 | | | | | | |
| PID | 0 | 0 | 0 | | | | | | |
| Sample pH | 7.88 | 8.26 | 7.44 | | | | | | |
| Matrix | Soil | Soil | Soil | | | | | | |
| No Contaminants of Concern Noted. | | | | | | | | | |

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-103200-7

Client Project/Site: IDOT - IL HSR UPRR - WO 021

For:

Andrews Engineering Inc.

3300 Ginger Creek Drive

Springfield, Illinois 62711

Attn: Ms. Colleen Grey

Jodie Bracken

Authorized for release by:

11/12/2015 4:59:54 PM

Jodie Bracken, Project Management Assistant II

jodie.bracken@testamericainc.com

Designee for

Richard Wright, Senior Project Manager

(708)534-5200

richard.wright@testamericainc.com

LINKS

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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.

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Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B03

Lab Sample ID: 500-103200-23

Date Collected: 10/28/15 13:05

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 79.4

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|---------|-----------|--------|---------|-------|---|----------------|----------------|---------|
| Acetone | <0.023 | | 0.023 | 0.0045 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Benzene | <0.0058 | | 0.0058 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Bromodichloromethane | <0.0058 | | 0.0058 | 0.00098 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Bromoform | <0.0058 | | 0.0058 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Bromomethane | <0.0058 | | 0.0058 | 0.0021 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| 2-Butanone (MEK) | <0.0058 | | 0.0058 | 0.0021 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Carbon disulfide | <0.0058 | | 0.0058 | 0.0021 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Carbon tetrachloride | <0.0058 | | 0.0058 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Chlorobenzene | <0.0058 | | 0.0058 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Chloroethane | <0.0058 | | 0.0058 | 0.0024 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Chloroform | <0.0058 | | 0.0058 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Chloromethane | <0.0058 | | 0.0058 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| cis-1,2-Dichloroethene | <0.0058 | | 0.0058 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| cis-1,3-Dichloropropene | <0.0058 | | 0.0058 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Dibromochloromethane | <0.0058 | | 0.0058 | 0.00067 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| 1,1-Dichloroethane | <0.0058 | | 0.0058 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| 1,2-Dichloroethane | <0.0058 | | 0.0058 | 0.00086 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| 1,1-Dichloroethene | <0.0058 | | 0.0058 | 0.0021 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| 1,2-Dichloropropane | <0.0058 | | 0.0058 | 0.0015 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| 1,3-Dichloropropane, Total | <0.0058 | | 0.0058 | 0.0016 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Ethylbenzene | <0.0058 | | 0.0058 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| 2-Hexanone | <0.0058 | | 0.0058 | 0.0018 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Methylene Chloride | <0.0058 | | 0.0058 | 0.0044 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| 4-Methyl-2-pentanone (MIBK) | <0.0058 | | 0.0058 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Methyl tert-butyl ether | <0.0058 | | 0.0058 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Styrene | <0.0058 | | 0.0058 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| 1,1,2,2-Tetrachloroethane | <0.0058 | | 0.0058 | 0.00092 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Tetrachloroethene | <0.0058 | | 0.0058 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Toluene | <0.0058 | | 0.0058 | 0.0020 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| trans-1,2-Dichloroethene | <0.0058 | | 0.0058 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| trans-1,3-Dichloropropene | <0.0058 | | 0.0058 | 0.0016 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| 1,1,1-Trichloroethane | <0.0058 | | 0.0058 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| 1,1,2-Trichloroethane | <0.0058 | | 0.0058 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Trichloroethene | <0.0058 | | 0.0058 | 0.0016 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Vinyl acetate | <0.0058 | | 0.0058 | 0.0016 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Vinyl chloride | <0.0058 | | 0.0058 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Xylenes, Total | <0.012 | | 0.012 | 0.0021 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 11:47 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 91 | | 70 - 122 | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Dibromofluoromethane | 101 | | 75 - 120 | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 101 | | 70 - 134 | 10/29/15 07:20 | 11/04/15 11:47 | 1 |
| Toluene-d8 (Surr) | 98 | | 75 - 122 | 10/29/15 07:20 | 11/04/15 11:47 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Acenaphthene | <0.040 | | 0.040 | 0.0072 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Acenaphthylene | <0.040 | | 0.040 | 0.0053 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Anthracene | <0.040 | | 0.040 | 0.0067 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Benzo[a]anthracene | 0.023 | J | 0.040 | 0.0054 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B03

Lab Sample ID: 500-103200-23

Date Collected: 10/28/15 13:05

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 79.4

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|--------------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Benzo[a]pyrene | <0.040 | | 0.040 | 0.0077 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Benzo[b]fluoranthene | <0.040 | | 0.040 | 0.0086 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Benzo[g,h,i]perylene | <0.040 | | 0.040 | 0.013 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Benzo[k]fluoranthene | <0.040 | | 0.040 | 0.012 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Bis(2-chloroethyl)ether | <0.20 | | 0.20 | 0.060 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Bis(2-ethylhexyl) phthalate | <0.20 | | 0.20 | 0.073 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Butyl benzyl phthalate | <0.20 | | 0.20 | 0.076 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Carbazole | <0.20 | | 0.20 | 0.10 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 4-Chloroaniline | <0.80 | | 0.80 | 0.19 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 2-Chloronaphthalene | <0.20 | | 0.20 | 0.044 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 2-Chlorophenol | <0.20 | | 0.20 | 0.068 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Chrysene | 0.040 | | 0.040 | 0.011 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Dibenz(a,h)anthracene | <0.040 | | 0.040 | 0.0077 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Dibenzofuran | <0.20 | | 0.20 | 0.047 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 1,2-Dichlorobenzene | <0.20 | | 0.20 | 0.048 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 1,4-Dichlorobenzene | <0.20 | | 0.20 | 0.051 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 3,3'-Dichlorobenzidine | <0.20 | | 0.20 | 0.056 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 2,4-Dichlorophenol | <0.40 | | 0.40 | 0.095 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Diethyl phthalate | <0.20 | | 0.20 | 0.068 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 2,4-Dimethylphenol | <0.40 | | 0.40 | 0.15 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Dimethyl phthalate | <0.20 | | 0.20 | 0.052 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Di-n-butyl phthalate | <0.20 | | 0.20 | 0.061 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 4,6-Dinitro-2-methylphenol | <0.80 | | 0.80 | 0.32 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 2,4-Dinitrophenol | <0.80 | | 0.80 | 0.70 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 2,4-Dinitrotoluene | <0.20 | | 0.20 | 0.063 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 2,6-Dinitrotoluene | <0.20 | | 0.20 | 0.078 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Di-n-octyl phthalate | <0.20 | | 0.20 | 0.065 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Fluoranthene | 0.057 | | 0.040 | 0.0074 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Fluorene | <0.040 | | 0.040 | 0.0056 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Hexachlorobenzene | <0.080 | | 0.080 | 0.0092 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Hexachlorobutadiene | <0.20 | | 0.20 | 0.063 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Hexachlorocyclopentadiene | <0.80 | | 0.80 | 0.23 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Hexachloroethane | <0.20 | | 0.20 | 0.061 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.040 | | 0.040 | 0.010 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Isophorone | <0.20 | | 0.20 | 0.045 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 2-Methylnaphthalene | <0.040 | | 0.040 | 0.0073 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 2-Methylphenol | <0.20 | | 0.20 | 0.064 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 3 & 4 Methylphenol | <0.20 | | 0.20 | 0.066 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Naphthalene | <0.040 | | 0.040 | 0.0061 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 2-Nitroaniline | <0.20 | | 0.20 | 0.054 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 4-Nitroaniline | <0.40 | | 0.40 | 0.17 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Nitrobenzene | <0.040 | | 0.040 | 0.0099 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 4-Nitrophenol | <0.80 | | 0.80 | 0.38 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| N-Nitrosodi-n-propylamine | <0.20 | | 0.20 | 0.049 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| N-Nitrosodiphenylamine | <0.20 | | 0.20 | 0.047 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 2,2'-oxybis[1-chloropropane] | <0.20 | | 0.20 | 0.046 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Pentachlorophenol | <0.80 | | 0.80 | 0.64 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Phenanthrene | 0.24 | | 0.040 | 0.0056 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Phenol | <0.20 | | 0.20 | 0.089 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B03

Lab Sample ID: 500-103200-23

Date Collected: 10/28/15 13:05

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 79.4

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|--------------|-----------|----------|--------|-------|---|----------------|----------------|---------|
| Pyrene | 0.048 | | 0.040 | 0.0079 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 1,2,4-Trichlorobenzene | <0.20 | | 0.20 | 0.043 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 2,4,5-Trichlorophenol | <0.40 | | 0.40 | 0.091 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 2,4,6-Trichlorophenol | <0.40 | | 0.40 | 0.14 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 2-Fluorobiphenyl | 93 | | 25 - 119 | | | | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 2-Fluorophenol | 106 | | 25 - 110 | | | | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Nitrobenzene-d5 | 103 | | 25 - 115 | | | | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Phenol-d5 | 106 | | 31 - 110 | | | | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| Terphenyl-d14 | 141 | X | 36 - 134 | | | | 11/04/15 15:26 | 11/07/15 02:10 | 1 |
| 2,4,6-Tribromophenol | 98 | | 35 - 137 | | | | 11/04/15 15:26 | 11/07/15 02:10 | 1 |

Method: 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|--------------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Antimony | <1.2 | | 1.2 | 0.26 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:14 | 1 |
| Arsenic | 7.8 | | 0.62 | 0.28 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:14 | 1 |
| Barium | 92 | | 0.62 | 0.11 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:14 | 1 |
| Beryllium | 0.82 | | 0.25 | 0.053 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:14 | 1 |
| Boron | 3.3 | | 3.1 | 0.43 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:14 | 1 |
| Cadmium | 0.84 | | 0.12 | 0.036 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:14 | 1 |
| Chromium | 12 | | 0.62 | 0.11 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:14 | 1 |
| Cobalt | 9.0 | | 0.31 | 0.070 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:14 | 1 |
| Copper | 24 | | 0.62 | 0.13 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:14 | 1 |
| Iron | 21000 | | 12 | 4.8 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:14 | 1 |
| Lead | 26 | | 0.31 | 0.15 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:14 | 1 |
| Magnesium | 2900 | | 6.2 | 2.5 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:14 | 1 |
| Manganese | 670 | | 0.62 | 0.12 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:14 | 1 |
| Nickel | 19 | | 0.62 | 0.17 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:14 | 1 |
| Selenium | 0.42 | J | 0.62 | 0.31 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:14 | 1 |
| Silver | <0.31 | | 0.31 | 0.072 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:14 | 1 |
| Thallium | <0.62 | | 0.62 | 0.30 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:14 | 1 |
| Vanadium | 22 | | 0.31 | 0.090 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:14 | 1 |
| Zinc | 150 | | 1.2 | 0.39 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 16:39 | 1 |

Method: 6010B - Metals (ICP) - TCLP

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|-------------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Iron | 0.20 | | 0.20 | 0.20 | mg/L | | 11/10/15 16:30 | 11/11/15 17:54 | 1 |
| Lead | <0.0075 | | 0.0075 | 0.0075 | mg/L | | 11/10/15 16:30 | 11/11/15 17:54 | 1 |
| Manganese | 0.12 | | 0.025 | 0.010 | mg/L | | 11/10/15 16:30 | 11/11/15 17:54 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|---------------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Arsenic | 0.033 | J | 0.050 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 19:51 | 1 |
| Barium | 0.52 | | 0.50 | 0.050 | mg/L | | 11/05/15 16:00 | 11/06/15 19:51 | 1 |
| Beryllium | 0.0040 | | 0.0040 | 0.0040 | mg/L | | 11/05/15 16:00 | 11/06/15 19:51 | 1 |
| Boron | 1.1 | | 0.10 | 0.050 | mg/L | | 11/05/15 16:00 | 11/06/15 19:51 | 1 |
| Cadmium | 0.0027 | J | 0.0050 | 0.0020 | mg/L | | 11/05/15 16:00 | 11/06/15 19:51 | 1 |
| Chromium | 0.093 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 19:51 | 1 |
| Cobalt | 0.012 | J | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 19:51 | 1 |

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B03

Lab Sample ID: 500-103200-23

Date Collected: 10/28/15 13:05

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 79.4

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Iron | 100 | | 0.20 | 0.20 | mg/L | | 11/05/15 16:00 | 11/06/15 19:51 | 1 |
| Lead | 0.040 | | 0.0075 | 0.0075 | mg/L | | 11/05/15 16:00 | 11/06/15 19:51 | 1 |
| Manganese | 0.42 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 19:51 | 1 |
| Nickel | 0.088 | | 0.025 | 0.010 | mg/L | | 11/07/15 20:00 | 11/09/15 14:06 | 1 |
| Selenium | <0.050 | | 0.050 | 0.020 | mg/L | | 11/05/15 16:00 | 11/06/15 19:51 | 1 |
| Silver | <0.025 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 19:51 | 1 |
| Zinc | 0.60 | | 0.10 | 0.020 | mg/L | | 11/05/15 16:00 | 11/06/15 19:51 | 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 | | 11/05/15 16:00 | 11/06/15 14:11 | 1 |
| Thallium | <0.0020 | | 0.0020 | 0.0020 | mg/L | | 11/05/15 16:00 | 11/06/15 14:11 | 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 | | 11/05/15 17:30 | 11/06/15 11:47 | 1 |

Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Mercury | 0.064 | | 0.019 | 0.0067 | mg/Kg | ✱ | 11/03/15 16:00 | 11/04/15 11:53 | 1 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|-------|------|---|----------|----------------|---------|
| pH | 7.52 | | 0.200 | 0.200 | SU | | | 11/04/15 17:50 | 1 |

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B04

Lab Sample ID: 500-103200-24

Date Collected: 10/28/15 13:15

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 79.8

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|---------|-----------|--------|---------|-------|---|----------------|----------------|---------|
| Acetone | <0.025 | | 0.025 | 0.0048 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Benzene | <0.0062 | | 0.0062 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Bromodichloromethane | <0.0062 | | 0.0062 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Bromoform | <0.0062 | | 0.0062 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Bromomethane | <0.0062 | | 0.0062 | 0.0023 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| 2-Butanone (MEK) | <0.0062 | | 0.0062 | 0.0022 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Carbon disulfide | <0.0062 | | 0.0062 | 0.0023 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Carbon tetrachloride | <0.0062 | | 0.0062 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Chlorobenzene | <0.0062 | | 0.0062 | 0.0015 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Chloroethane | <0.0062 | | 0.0062 | 0.0026 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Chloroform | <0.0062 | | 0.0062 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Chloromethane | <0.0062 | | 0.0062 | 0.0015 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| cis-1,2-Dichloroethene | <0.0062 | | 0.0062 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| cis-1,3-Dichloropropene | <0.0062 | | 0.0062 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Dibromochloromethane | <0.0062 | | 0.0062 | 0.00072 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| 1,1-Dichloroethane | <0.0062 | | 0.0062 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| 1,2-Dichloroethane | <0.0062 | | 0.0062 | 0.00092 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| 1,1-Dichloroethene | <0.0062 | | 0.0062 | 0.0023 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| 1,2-Dichloropropane | <0.0062 | | 0.0062 | 0.0016 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| 1,3-Dichloropropene, Total | <0.0062 | | 0.0062 | 0.0018 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Ethylbenzene | <0.0062 | | 0.0062 | 0.0015 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| 2-Hexanone | <0.0062 | | 0.0062 | 0.0019 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Methylene Chloride | <0.0062 | | 0.0062 | 0.0047 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| 4-Methyl-2-pentanone (MIBK) | <0.0062 | | 0.0062 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Methyl tert-butyl ether | <0.0062 | | 0.0062 | 0.0015 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Styrene | <0.0062 | | 0.0062 | 0.0015 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| 1,1,1,2-Tetrachloroethane | <0.0062 | | 0.0062 | 0.00099 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Tetrachloroethene | <0.0062 | | 0.0062 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Toluene | <0.0062 | | 0.0062 | 0.0022 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| trans-1,2-Dichloroethene | <0.0062 | | 0.0062 | 0.0016 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| trans-1,3-Dichloropropene | <0.0062 | | 0.0062 | 0.0018 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| 1,1,1-Trichloroethane | <0.0062 | | 0.0062 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| 1,1,2-Trichloroethane | <0.0062 | | 0.0062 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Trichloroethene | <0.0062 | | 0.0062 | 0.0017 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Vinyl acetate | <0.0062 | | 0.0062 | 0.0017 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Vinyl chloride | <0.0062 | | 0.0062 | 0.0015 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Xylenes, Total | <0.012 | | 0.012 | 0.0023 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:11 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 94 | | 70 - 122 | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Dibromofluoromethane | 104 | | 75 - 120 | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 106 | | 70 - 134 | 10/29/15 07:20 | 11/04/15 12:11 | 1 |
| Toluene-d8 (Surr) | 97 | | 75 - 122 | 10/29/15 07:20 | 11/04/15 12:11 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Acenaphthene | <0.040 | | 0.040 | 0.0072 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Acenaphthylene | <0.040 | | 0.040 | 0.0053 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Anthracene | 0.012 | J | 0.040 | 0.0067 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Benzo[a]anthracene | 0.047 | | 0.040 | 0.0054 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B04

Lab Sample ID: 500-103200-24

Date Collected: 10/28/15 13:15

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 79.8

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|--------------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Benzo[a]pyrene | 0.050 | | 0.040 | 0.0078 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Benzo[b]fluoranthene | 0.083 | | 0.040 | 0.0087 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Benzo[g,h,i]perylene | <0.040 | | 0.040 | 0.013 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Benzo[k]fluoranthene | <0.040 | | 0.040 | 0.012 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Bis(2-chloroethyl)ether | <0.20 | | 0.20 | 0.060 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Bis(2-ethylhexyl) phthalate | <0.20 | | 0.20 | 0.074 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Butyl benzyl phthalate | <0.20 | | 0.20 | 0.077 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Carbazole | <0.20 | | 0.20 | 0.10 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 4-Chloroaniline | <0.81 | | 0.81 | 0.19 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 2-Chloronaphthalene | <0.20 | | 0.20 | 0.044 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 2-Chlorophenol | <0.20 | | 0.20 | 0.069 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Chrysene | 0.089 | | 0.040 | 0.011 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Dibenz(a,h)anthracene | <0.040 | | 0.040 | 0.0078 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Dibenzofuran | <0.20 | | 0.20 | 0.047 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 1,2-Dichlorobenzene | <0.20 | | 0.20 | 0.048 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 1,4-Dichlorobenzene | <0.20 | | 0.20 | 0.052 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 3,3'-Dichlorobenzidine | <0.20 | | 0.20 | 0.056 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 2,4-Dichlorophenol | <0.40 | | 0.40 | 0.096 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Diethyl phthalate | <0.20 | | 0.20 | 0.068 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 2,4-Dimethylphenol | <0.40 | | 0.40 | 0.15 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Dimethyl phthalate | <0.20 | | 0.20 | 0.053 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Di-n-butyl phthalate | <0.20 | | 0.20 | 0.061 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 4,6-Dinitro-2-methylphenol | <0.81 | | 0.81 | 0.32 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 2,4-Dinitrophenol | <0.81 | | 0.81 | 0.71 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 2,4-Dinitrotoluene | <0.20 | | 0.20 | 0.064 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 2,6-Dinitrotoluene | <0.20 | | 0.20 | 0.079 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Di-n-octyl phthalate | <0.20 | | 0.20 | 0.066 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Fluoranthene | 0.11 | | 0.040 | 0.0075 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Fluorene | <0.040 | | 0.040 | 0.0057 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Hexachlorobenzene | <0.081 | | 0.081 | 0.0093 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Hexachlorobutadiene | <0.20 | | 0.20 | 0.063 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Hexachlorocyclopentadiene | <0.81 | | 0.81 | 0.23 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Hexachloroethane | <0.20 | | 0.20 | 0.061 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.040 | | 0.040 | 0.010 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Isophorone | <0.20 | | 0.20 | 0.045 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 2-Methylnaphthalene | 0.021 | J | 0.040 | 0.0074 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 2-Methylphenol | <0.20 | | 0.20 | 0.065 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 3 & 4 Methylphenol | <0.20 | | 0.20 | 0.067 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Naphthalene | 0.013 | J | 0.040 | 0.0062 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 2-Nitroaniline | <0.20 | | 0.20 | 0.054 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 4-Nitroaniline | <0.40 | | 0.40 | 0.17 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Nitrobenzene | <0.040 | | 0.040 | 0.010 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 4-Nitrophenol | <0.81 | | 0.81 | 0.38 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| N-Nitrosodi-n-propylamine | <0.20 | | 0.20 | 0.049 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| N-Nitrosodiphenylamine | <0.20 | | 0.20 | 0.047 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 2,2'-oxybis[1-chloropropane] | <0.20 | | 0.20 | 0.047 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Pentachlorophenol | <0.81 | | 0.81 | 0.65 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Phenanthrene | 0.26 | | 0.040 | 0.0056 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Phenol | <0.20 | | 0.20 | 0.089 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B04

Lab Sample ID: 500-103200-24

Date Collected: 10/28/15 13:15

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 79.8

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|-------------|-----------|----------|--------|-------|---|----------------|----------------|---------|
| Pyrene | 0.13 | | 0.040 | 0.0080 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 1,2,4-Trichlorobenzene | <0.20 | | 0.20 | 0.043 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 2,4,5-Trichlorophenol | <0.40 | | 0.40 | 0.092 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 2,4,6-Trichlorophenol | <0.40 | | 0.40 | 0.14 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 2-Fluorobiphenyl | 76 | | 25 - 119 | | | | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 2-Fluorophenol | 72 | | 25 - 110 | | | | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Nitrobenzene-d5 | 74 | | 25 - 115 | | | | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Phenol-d5 | 78 | | 31 - 110 | | | | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| Terphenyl-d14 | 144 | X | 36 - 134 | | | | 11/04/15 15:26 | 11/07/15 02:39 | 1 |
| 2,4,6-Tribromophenol | 90 | | 35 - 137 | | | | 11/04/15 15:26 | 11/07/15 02:39 | 1 |

Method: 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|--------------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Antimony | <1.2 | | 1.2 | 0.25 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:19 | 1 |
| Arsenic | 6.9 | | 0.60 | 0.28 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:19 | 1 |
| Barium | 85 | | 0.60 | 0.11 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:19 | 1 |
| Beryllium | 0.67 | | 0.24 | 0.052 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:19 | 1 |
| Boron | 4.0 | | 3.0 | 0.42 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:19 | 1 |
| Cadmium | 0.61 | | 0.12 | 0.035 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:19 | 1 |
| Chromium | 11 | | 0.60 | 0.10 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:19 | 1 |
| Cobalt | 7.1 | | 0.30 | 0.068 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:19 | 1 |
| Copper | 28 | | 0.60 | 0.13 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:19 | 1 |
| Iron | 18000 | | 12 | 4.6 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:19 | 1 |
| Lead | 64 | | 0.30 | 0.15 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:19 | 1 |
| Magnesium | 5400 | | 6.0 | 2.4 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:19 | 1 |
| Manganese | 370 | | 0.60 | 0.12 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:19 | 1 |
| Nickel | 13 | | 0.60 | 0.16 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:19 | 1 |
| Selenium | 0.47 | J | 0.60 | 0.30 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:19 | 1 |
| Silver | <0.30 | | 0.30 | 0.070 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:19 | 1 |
| Thallium | <0.60 | | 0.60 | 0.29 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:19 | 1 |
| Vanadium | 21 | | 0.30 | 0.087 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:19 | 1 |
| Zinc | 91 | | 1.2 | 0.38 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 16:45 | 1 |

Method: 6010B - Metals (ICP) - TCLP

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|-------------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Iron | <0.20 | | 0.20 | 0.20 | mg/L | | 11/10/15 16:30 | 11/11/15 17:59 | 1 |
| Lead | <0.0075 | | 0.0075 | 0.0075 | mg/L | | 11/10/15 16:30 | 11/11/15 17:59 | 1 |
| Manganese | 0.53 | | 0.025 | 0.010 | mg/L | | 11/10/15 16:30 | 11/11/15 17:59 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|---------------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Arsenic | 0.026 | J | 0.050 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 19:58 | 1 |
| Barium | 0.49 | J | 0.50 | 0.050 | mg/L | | 11/05/15 16:00 | 11/06/15 19:58 | 1 |
| Beryllium | <0.0040 | | 0.0040 | 0.0040 | mg/L | | 11/05/15 16:00 | 11/06/15 19:58 | 1 |
| Boron | 0.12 | | 0.10 | 0.050 | mg/L | | 11/05/15 16:00 | 11/06/15 19:58 | 1 |
| Cadmium | 0.0021 | J | 0.0050 | 0.0020 | mg/L | | 11/05/15 16:00 | 11/06/15 19:58 | 1 |
| Chromium | 0.086 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 19:58 | 1 |
| Cobalt | 0.014 | J | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 19:58 | 1 |

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
 Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B04

Lab Sample ID: 500-103200-24

Date Collected: 10/28/15 13:15

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 79.8

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Iron | 92 | | 0.20 | 0.20 | mg/L | | 11/05/15 16:00 | 11/06/15 19:58 | 1 |
| Lead | 0.12 | | 0.0075 | 0.0075 | mg/L | | 11/05/15 16:00 | 11/06/15 19:58 | 1 |
| Manganese | 0.55 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 19:58 | 1 |
| Nickel | 0.067 | | 0.025 | 0.010 | mg/L | | 11/07/15 20:00 | 11/09/15 14:10 | 1 |
| Selenium | <0.050 | | 0.050 | 0.020 | mg/L | | 11/05/15 16:00 | 11/06/15 19:58 | 1 |
| Silver | <0.025 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 19:58 | 1 |
| Zinc | 0.46 | | 0.10 | 0.020 | mg/L | | 11/05/15 16:00 | 11/06/15 19:58 | 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 | | 11/05/15 16:00 | 11/06/15 14:12 | 1 |
| Thallium | <0.0020 | | 0.0020 | 0.0020 | mg/L | | 11/05/15 16:00 | 11/06/15 14:12 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|---------|-----------|---------|---------|------|---|----------------|----------------|---------|
| Mercury | 0.00027 | | 0.00020 | 0.00020 | mg/L | | 11/05/15 17:30 | 11/06/15 11:49 | 1 |

Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Mercury | 0.049 | | 0.019 | 0.0068 | mg/Kg | ✱ | 11/03/15 16:00 | 11/04/15 11:55 | 1 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|-------|------|---|----------|----------------|---------|
| pH | 7.80 | | 0.200 | 0.200 | SU | | | 11/04/15 17:56 | 1 |

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B05

Lab Sample ID: 500-103200-25

Date Collected: 10/28/15 13:25

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 79.5

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|---------|-----------|--------|---------|-------|---|----------------|----------------|---------|
| Acetone | <0.021 | | 0.021 | 0.0040 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Benzene | <0.0052 | | 0.0052 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Bromodichloromethane | <0.0052 | | 0.0052 | 0.00088 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Bromoform | <0.0052 | | 0.0052 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Bromomethane | <0.0052 | | 0.0052 | 0.0019 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| 2-Butanone (MEK) | <0.0052 | | 0.0052 | 0.0019 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Carbon disulfide | <0.0052 | | 0.0052 | 0.0019 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Carbon tetrachloride | <0.0052 | | 0.0052 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Chlorobenzene | <0.0052 | | 0.0052 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Chloroethane | <0.0052 | | 0.0052 | 0.0022 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Chloroform | <0.0052 | | 0.0052 | 0.0010 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Chloromethane | <0.0052 | | 0.0052 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| cis-1,2-Dichloroethene | <0.0052 | | 0.0052 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| cis-1,3-Dichloropropene | <0.0052 | | 0.0052 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Dibromochloromethane | <0.0052 | | 0.0052 | 0.00060 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| 1,1-Dichloroethane | <0.0052 | | 0.0052 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| 1,2-Dichloroethane | <0.0052 | | 0.0052 | 0.00077 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| 1,1-Dichloroethene | <0.0052 | | 0.0052 | 0.0019 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| 1,2-Dichloropropane | <0.0052 | | 0.0052 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| 1,3-Dichloropropene, Total | <0.0052 | | 0.0052 | 0.0015 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Ethylbenzene | <0.0052 | | 0.0052 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| 2-Hexanone | <0.0052 | | 0.0052 | 0.0016 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Methylene Chloride | <0.0052 | | 0.0052 | 0.0039 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| 4-Methyl-2-pentanone (MIBK) | <0.0052 | | 0.0052 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Methyl tert-butyl ether | <0.0052 | | 0.0052 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Styrene | <0.0052 | | 0.0052 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| 1,1,2,2-Tetrachloroethane | <0.0052 | | 0.0052 | 0.00083 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Tetrachloroethene | <0.0052 | | 0.0052 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Toluene | <0.0052 | | 0.0052 | 0.0018 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| trans-1,2-Dichloroethene | <0.0052 | | 0.0052 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| trans-1,3-Dichloropropene | <0.0052 | | 0.0052 | 0.0015 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| 1,1,1-Trichloroethane | <0.0052 | | 0.0052 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| 1,1,2-Trichloroethane | <0.0052 | | 0.0052 | 0.0010 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Trichloroethene | <0.0052 | | 0.0052 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Vinyl acetate | <0.0052 | | 0.0052 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Vinyl chloride | <0.0052 | | 0.0052 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Xylenes, Total | <0.010 | | 0.010 | 0.0019 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:35 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 93 | | 70 - 122 | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Dibromofluoromethane | 103 | | 75 - 120 | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 105 | | 70 - 134 | 10/29/15 07:20 | 11/04/15 12:35 | 1 |
| Toluene-d8 (Surr) | 97 | | 75 - 122 | 10/29/15 07:20 | 11/04/15 12:35 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|---------------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Acenaphthene | <0.040 | | 0.040 | 0.0072 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Acenaphthylene | <0.040 | | 0.040 | 0.0053 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Anthracene | 0.0085 | J | 0.040 | 0.0067 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Benzo[a]anthracene | 0.033 | J | 0.040 | 0.0054 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B05

Lab Sample ID: 500-103200-25

Date Collected: 10/28/15 13:25

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 79.5

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|---------------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Benzo[a]pyrene | 0.030 | J | 0.040 | 0.0078 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Benzo[b]fluoranthene | 0.059 | | 0.040 | 0.0087 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Benzo[g,h,i]perylene | <0.040 | | 0.040 | 0.013 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Benzo[k]fluoranthene | <0.040 | | 0.040 | 0.012 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Bis(2-chloroethyl)ether | <0.20 | | 0.20 | 0.060 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Bis(2-ethylhexyl) phthalate | <0.20 | | 0.20 | 0.073 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Butyl benzyl phthalate | <0.20 | | 0.20 | 0.076 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Carbazole | <0.20 | | 0.20 | 0.10 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 4-Chloroaniline | <0.81 | | 0.81 | 0.19 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 2-Chloronaphthalene | <0.20 | | 0.20 | 0.044 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 2-Chlorophenol | <0.20 | | 0.20 | 0.068 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Chrysene | 0.058 | | 0.040 | 0.011 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Dibenz(a,h)anthracene | <0.040 | | 0.040 | 0.0077 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Dibenzofuran | <0.20 | | 0.20 | 0.047 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 1,2-Dichlorobenzene | <0.20 | | 0.20 | 0.048 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 1,4-Dichlorobenzene | <0.20 | | 0.20 | 0.051 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 3,3'-Dichlorobenzidine | <0.20 | | 0.20 | 0.056 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 2,4-Dichlorophenol | <0.40 | | 0.40 | 0.095 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Diethyl phthalate | <0.20 | | 0.20 | 0.068 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 2,4-Dimethylphenol | <0.40 | | 0.40 | 0.15 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Dimethyl phthalate | <0.20 | | 0.20 | 0.052 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Di-n-butyl phthalate | <0.20 | | 0.20 | 0.061 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 4,6-Dinitro-2-methylphenol | <0.81 | | 0.81 | 0.32 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 2,4-Dinitrophenol | <0.81 | | 0.81 | 0.71 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 2,4-Dinitrotoluene | <0.20 | | 0.20 | 0.064 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 2,6-Dinitrotoluene | <0.20 | | 0.20 | 0.079 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Di-n-octyl phthalate | <0.20 | | 0.20 | 0.065 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Fluoranthene | 0.064 | | 0.040 | 0.0074 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Fluorene | <0.040 | | 0.040 | 0.0056 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Hexachlorobenzene | <0.081 | | 0.081 | 0.0093 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Hexachlorobutadiene | <0.20 | | 0.20 | 0.063 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Hexachlorocyclopentadiene | <0.81 | | 0.81 | 0.23 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Hexachloroethane | <0.20 | | 0.20 | 0.061 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.040 | | 0.040 | 0.010 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Isophorone | <0.20 | | 0.20 | 0.045 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 2-Methylnaphthalene | 0.015 | J | 0.040 | 0.0074 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 2-Methylphenol | <0.20 | | 0.20 | 0.064 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 3 & 4 Methylphenol | <0.20 | | 0.20 | 0.067 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Naphthalene | 0.0080 | J | 0.040 | 0.0062 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 2-Nitroaniline | <0.20 | | 0.20 | 0.054 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 4-Nitroaniline | <0.40 | | 0.40 | 0.17 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Nitrobenzene | <0.040 | | 0.040 | 0.010 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 4-Nitrophenol | <0.81 | | 0.81 | 0.38 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| N-Nitrosodi-n-propylamine | <0.20 | | 0.20 | 0.049 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| N-Nitrosodiphenylamine | <0.20 | | 0.20 | 0.047 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 2,2'-oxybis[1-chloropropane] | <0.20 | | 0.20 | 0.046 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Pentachlorophenol | <0.81 | | 0.81 | 0.64 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Phenanthrene | 0.13 | | 0.040 | 0.0056 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Phenol | <0.20 | | 0.20 | 0.089 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B05

Lab Sample ID: 500-103200-25

Date Collected: 10/28/15 13:25

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 79.5

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|--------------|-----------|----------|--------|-------|---|----------------|----------------|---------|
| Pyrene | 0.091 | | 0.040 | 0.0080 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 1,2,4-Trichlorobenzene | <0.20 | | 0.20 | 0.043 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 2,4,5-Trichlorophenol | <0.40 | | 0.40 | 0.091 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 2,4,6-Trichlorophenol | <0.40 | | 0.40 | 0.14 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 2-Fluorobiphenyl | 76 | | 25 - 119 | | | | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 2-Fluorophenol | 75 | | 25 - 110 | | | | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Nitrobenzene-d5 | 69 | | 25 - 115 | | | | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Phenol-d5 | 83 | | 31 - 110 | | | | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| Terphenyl-d14 | 164 | X | 36 - 134 | | | | 11/04/15 15:26 | 11/07/15 03:09 | 1 |
| 2,4,6-Tribromophenol | 104 | | 35 - 137 | | | | 11/04/15 15:26 | 11/07/15 03:09 | 1 |

Method: 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|--------------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Antimony | <1.2 | | 1.2 | 0.24 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:24 | 1 |
| Arsenic | 5.6 | | 0.59 | 0.27 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:24 | 1 |
| Barium | 75 | | 0.59 | 0.11 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:24 | 1 |
| Beryllium | 0.64 | | 0.23 | 0.051 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:24 | 1 |
| Boron | 3.5 | | 2.9 | 0.41 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:24 | 1 |
| Cadmium | 0.44 | | 0.12 | 0.034 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:24 | 1 |
| Chromium | 12 | | 0.59 | 0.10 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:24 | 1 |
| Cobalt | 4.6 | | 0.29 | 0.066 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:24 | 1 |
| Copper | 17 | | 0.59 | 0.13 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:24 | 1 |
| Iron | 15000 | | 12 | 4.5 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:24 | 1 |
| Lead | 71 | | 0.29 | 0.15 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:24 | 1 |
| Magnesium | 4800 | | 5.9 | 2.4 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:24 | 1 |
| Manganese | 200 | | 0.59 | 0.12 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:24 | 1 |
| Nickel | 12 | | 0.59 | 0.16 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:24 | 1 |
| Selenium | 0.40 | J | 0.59 | 0.29 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:24 | 1 |
| Silver | <0.29 | | 0.29 | 0.069 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:24 | 1 |
| Thallium | <0.59 | | 0.59 | 0.29 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:24 | 1 |
| Vanadium | 19 | | 0.29 | 0.086 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 06:24 | 1 |
| Zinc | 70 | | 1.2 | 0.37 | mg/Kg | ☼ | 11/05/15 11:25 | 11/06/15 16:51 | 1 |

Method: 6010B - Metals (ICP) - TCLP

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|-------------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Iron | <0.20 | | 0.20 | 0.20 | mg/L | | 11/10/15 16:30 | 11/11/15 18:05 | 1 |
| Lead | <0.0075 | | 0.0075 | 0.0075 | mg/L | | 11/10/15 16:30 | 11/11/15 18:05 | 1 |
| Manganese | 0.31 | | 0.025 | 0.010 | mg/L | | 11/10/15 16:30 | 11/11/15 18:05 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|--------------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Arsenic | 0.023 | J | 0.050 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 20:05 | 1 |
| Barium | 0.57 | | 0.50 | 0.050 | mg/L | | 11/05/15 16:00 | 11/06/15 20:05 | 1 |
| Beryllium | <0.0040 | | 0.0040 | 0.0040 | mg/L | | 11/05/15 16:00 | 11/06/15 20:05 | 1 |
| Boron | 1.4 | | 0.10 | 0.050 | mg/L | | 11/05/15 16:00 | 11/06/15 20:05 | 1 |
| Cadmium | <0.0050 | | 0.0050 | 0.0020 | mg/L | | 11/05/15 16:00 | 11/06/15 20:05 | 1 |
| Chromium | 0.090 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 20:05 | 1 |
| Cobalt | 0.012 | J | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 20:05 | 1 |

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B05

Lab Sample ID: 500-103200-25

Date Collected: 10/28/15 13:25

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 79.5

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Iron | 87 | | 0.20 | 0.20 | mg/L | | 11/05/15 16:00 | 11/06/15 20:05 | 1 |
| Lead | 0.071 | | 0.0075 | 0.0075 | mg/L | | 11/05/15 16:00 | 11/06/15 20:05 | 1 |
| Manganese | 0.44 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 20:05 | 1 |
| Nickel | 0.067 | | 0.025 | 0.010 | mg/L | | 11/07/15 20:00 | 11/09/15 14:15 | 1 |
| Selenium | <0.050 | | 0.050 | 0.020 | mg/L | | 11/05/15 16:00 | 11/06/15 20:05 | 1 |
| Silver | <0.025 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 20:05 | 1 |
| Zinc | 0.45 | | 0.10 | 0.020 | mg/L | | 11/05/15 16:00 | 11/06/15 20:05 | 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 | | 11/05/15 16:00 | 11/06/15 14:13 | 1 |
| Thallium | <0.0020 | | 0.0020 | 0.0020 | mg/L | | 11/05/15 16:00 | 11/06/15 14:13 | 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 | | 11/05/15 17:30 | 11/06/15 11:51 | 1 |

Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Mercury | 0.036 | | 0.020 | 0.0069 | mg/Kg | ✱ | 11/03/15 16:00 | 11/04/15 11:57 | 1 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|-------|------|---|----------|----------------|---------|
| pH | 7.40 | | 0.200 | 0.200 | SU | | | 11/04/15 18:02 | 1 |

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B06

Lab Sample ID: 500-103200-26

Date Collected: 10/28/15 13:20

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 80.8

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|---------|-----------|--------|---------|-------|---|----------------|----------------|---------|
| Acetone | <0.022 | | 0.022 | 0.0043 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Benzene | <0.0055 | | 0.0055 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Bromodichloromethane | <0.0055 | | 0.0055 | 0.00093 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Bromoform | <0.0055 | | 0.0055 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Bromomethane | <0.0055 | | 0.0055 | 0.0020 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| 2-Butanone (MEK) | <0.0055 | | 0.0055 | 0.0020 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Carbon disulfide | <0.0055 | | 0.0055 | 0.0020 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Carbon tetrachloride | <0.0055 | | 0.0055 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Chlorobenzene | <0.0055 | | 0.0055 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Chloroethane | <0.0055 | | 0.0055 | 0.0023 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Chloroform | <0.0055 | | 0.0055 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Chloromethane | <0.0055 | | 0.0055 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| cis-1,2-Dichloroethene | <0.0055 | | 0.0055 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| cis-1,3-Dichloropropene | <0.0055 | | 0.0055 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Dibromochloromethane | <0.0055 | | 0.0055 | 0.00064 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| 1,1-Dichloroethane | <0.0055 | | 0.0055 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| 1,2-Dichloroethane | <0.0055 | | 0.0055 | 0.00082 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| 1,1-Dichloroethene | <0.0055 | | 0.0055 | 0.0020 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| 1,2-Dichloropropane | <0.0055 | | 0.0055 | 0.0015 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| 1,3-Dichloropropane, Total | <0.0055 | | 0.0055 | 0.0016 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Ethylbenzene | <0.0055 | | 0.0055 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| 2-Hexanone | <0.0055 | | 0.0055 | 0.0017 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Methylene Chloride | <0.0055 | | 0.0055 | 0.0042 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| 4-Methyl-2-pentanone (MIBK) | <0.0055 | | 0.0055 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Methyl tert-butyl ether | <0.0055 | | 0.0055 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Styrene | <0.0055 | | 0.0055 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| 1,1,2,2-Tetrachloroethane | <0.0055 | | 0.0055 | 0.00088 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Tetrachloroethene | <0.0055 | | 0.0055 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Toluene | <0.0055 | | 0.0055 | 0.0019 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| trans-1,2-Dichloroethene | <0.0055 | | 0.0055 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| trans-1,3-Dichloropropene | <0.0055 | | 0.0055 | 0.0016 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| 1,1,1-Trichloroethane | <0.0055 | | 0.0055 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| 1,1,2-Trichloroethane | <0.0055 | | 0.0055 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Trichloroethene | <0.0055 | | 0.0055 | 0.0015 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Vinyl acetate | <0.0055 | | 0.0055 | 0.0015 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Vinyl chloride | <0.0055 | | 0.0055 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Xylenes, Total | <0.011 | | 0.011 | 0.0020 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 12:58 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 90 | | 70 - 122 | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Dibromofluoromethane | 105 | | 75 - 120 | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 103 | | 70 - 134 | 10/29/15 07:20 | 11/04/15 12:58 | 1 |
| Toluene-d8 (Surr) | 98 | | 75 - 122 | 10/29/15 07:20 | 11/04/15 12:58 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|---------------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Acenaphthene | <0.038 | | 0.038 | 0.0070 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Acenaphthylene | <0.038 | | 0.038 | 0.0051 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Anthracene | 0.0074 | J | 0.038 | 0.0065 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Benzo[a]anthracene | 0.029 | J | 0.038 | 0.0052 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B06

Lab Sample ID: 500-103200-26

Date Collected: 10/28/15 13:20

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 80.8

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|--------------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Benzo[a]pyrene | 0.027 | J | 0.038 | 0.0075 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Benzo[b]fluoranthene | 0.056 | | 0.038 | 0.0083 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Benzo[g,h,i]perylene | <0.038 | | 0.038 | 0.012 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Benzo[k]fluoranthene | <0.038 | | 0.038 | 0.011 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Bis(2-chloroethyl)ether | <0.19 | | 0.19 | 0.058 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Bis(2-ethylhexyl) phthalate | <0.19 | | 0.19 | 0.071 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Butyl benzyl phthalate | <0.19 | | 0.19 | 0.074 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Carbazole | <0.19 | | 0.19 | 0.097 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 4-Chloroaniline | <0.78 | | 0.78 | 0.18 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 2-Chloronaphthalene | <0.19 | | 0.19 | 0.043 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 2-Chlorophenol | <0.19 | | 0.19 | 0.066 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Chrysene | 0.055 | | 0.038 | 0.011 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Dibenz(a,h)anthracene | <0.038 | | 0.038 | 0.0075 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Dibenzofuran | <0.19 | | 0.19 | 0.045 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 1,2-Dichlorobenzene | <0.19 | | 0.19 | 0.046 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 1,4-Dichlorobenzene | <0.19 | | 0.19 | 0.050 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 3,3'-Dichlorobenzidine | <0.19 | | 0.19 | 0.054 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 2,4-Dichlorophenol | <0.38 | | 0.38 | 0.092 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Diethyl phthalate | <0.19 | | 0.19 | 0.066 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 2,4-Dimethylphenol | <0.38 | | 0.38 | 0.15 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Dimethyl phthalate | <0.19 | | 0.19 | 0.051 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Di-n-butyl phthalate | <0.19 | | 0.19 | 0.059 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 4,6-Dinitro-2-methylphenol | <0.78 | | 0.78 | 0.31 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 2,4-Dinitrophenol | <0.78 | | 0.78 | 0.68 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 2,4-Dinitrotoluene | <0.19 | | 0.19 | 0.061 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 2,6-Dinitrotoluene | <0.19 | | 0.19 | 0.076 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Di-n-octyl phthalate | <0.19 | | 0.19 | 0.063 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Fluoranthene | 0.052 | | 0.038 | 0.0072 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Fluorene | <0.038 | | 0.038 | 0.0054 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Hexachlorobenzene | <0.078 | | 0.078 | 0.0090 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Hexachlorobutadiene | <0.19 | | 0.19 | 0.061 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Hexachlorocyclopentadiene | <0.78 | | 0.78 | 0.22 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Hexachloroethane | <0.19 | | 0.19 | 0.059 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.038 | | 0.038 | 0.010 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Isophorone | <0.19 | | 0.19 | 0.043 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 2-Methylnaphthalene | 0.018 | J | 0.038 | 0.0071 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 2-Methylphenol | <0.19 | | 0.19 | 0.062 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 3 & 4 Methylphenol | <0.19 | | 0.19 | 0.065 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Naphthalene | 0.011 | J | 0.038 | 0.0059 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 2-Nitroaniline | <0.19 | | 0.19 | 0.052 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 4-Nitroaniline | <0.38 | | 0.38 | 0.16 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Nitrobenzene | <0.038 | | 0.038 | 0.0097 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 4-Nitrophenol | <0.78 | | 0.78 | 0.37 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| N-Nitrosodi-n-propylamine | <0.19 | | 0.19 | 0.047 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| N-Nitrosodiphenylamine | <0.19 | | 0.19 | 0.046 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 2,2'-oxybis[1-chloropropane] | <0.19 | | 0.19 | 0.045 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Pentachlorophenol | <0.78 | | 0.78 | 0.62 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Phenanthrene | 0.11 | | 0.038 | 0.0054 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Phenol | <0.19 | | 0.19 | 0.086 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B06

Lab Sample ID: 500-103200-26

Date Collected: 10/28/15 13:20

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 80.8

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|--------------|-----------|----------|--------|-------|---|----------------|----------------|---------|
| Pyrene | 0.086 | | 0.038 | 0.0077 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 1,2,4-Trichlorobenzene | <0.19 | | 0.19 | 0.042 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 2,4,5-Trichlorophenol | <0.38 | | 0.38 | 0.088 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 2,4,6-Trichlorophenol | <0.38 | | 0.38 | 0.13 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 2-Fluorobiphenyl | 88 | | 25 - 119 | | | | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 2-Fluorophenol | 91 | | 25 - 110 | | | | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Nitrobenzene-d5 | 91 | | 25 - 115 | | | | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Phenol-d5 | 93 | | 31 - 110 | | | | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| Terphenyl-d14 | 172 | X | 36 - 134 | | | | 11/04/15 15:26 | 11/07/15 03:38 | 1 |
| 2,4,6-Tribromophenol | 99 | | 35 - 137 | | | | 11/04/15 15:26 | 11/07/15 03:38 | 1 |

Method: 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|--------------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Antimony | <1.1 | | 1.1 | 0.23 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:51 | 1 |
| Arsenic | 5.9 | | 0.56 | 0.26 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:51 | 1 |
| Barium | 82 | | 0.56 | 0.10 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:51 | 1 |
| Beryllium | 0.62 | | 0.22 | 0.049 | mg/Kg | ☼ | 11/05/15 11:45 | 11/06/15 12:53 | 1 |
| Boron | 3.9 | | 2.8 | 0.39 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:51 | 1 |
| Cadmium | 0.37 | | 0.11 | 0.032 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:51 | 1 |
| Chromium | 12 | B | 0.56 | 0.096 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:51 | 1 |
| Cobalt | 6.5 | | 0.28 | 0.063 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:51 | 1 |
| Copper | 14 | | 0.56 | 0.12 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:51 | 1 |
| Iron | 17000 | | 11 | 4.3 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:51 | 1 |
| Lead | 26 | | 0.28 | 0.14 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:51 | 1 |
| Magnesium | 2800 | | 5.6 | 2.3 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:51 | 1 |
| Manganese | 300 | | 0.56 | 0.11 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:51 | 1 |
| Nickel | 14 | | 0.56 | 0.15 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:51 | 1 |
| Selenium | 0.57 | | 0.56 | 0.28 | mg/Kg | ☼ | 11/05/15 11:45 | 11/06/15 12:53 | 1 |
| Silver | <0.28 | | 0.28 | 0.066 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:51 | 1 |
| Thallium | <0.56 | | 0.56 | 0.28 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:51 | 1 |
| Vanadium | 25 | | 0.28 | 0.082 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:51 | 1 |
| Zinc | 62 | | 1.1 | 0.35 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:51 | 1 |

Method: 6010B - Metals (ICP) - TCLP

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|-------------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Beryllium | <0.0040 | | 0.0040 | 0.0040 | mg/L | | 11/10/15 16:30 | 11/11/15 18:10 | 1 |
| Chromium | <0.025 | | 0.025 | 0.010 | mg/L | | 11/10/15 16:30 | 11/11/15 18:10 | 1 |
| Iron | <0.20 | | 0.20 | 0.20 | mg/L | | 11/10/15 16:30 | 11/11/15 18:10 | 1 |
| Lead | <0.0075 | | 0.0075 | 0.0075 | mg/L | | 11/10/15 16:30 | 11/11/15 18:10 | 1 |
| Manganese | 0.37 | | 0.025 | 0.010 | mg/L | | 11/10/15 16:30 | 11/11/15 18:10 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|---------------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Arsenic | 0.037 | J | 0.050 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 20:58 | 1 |
| Barium | 0.72 | | 0.50 | 0.050 | mg/L | | 11/05/15 16:00 | 11/06/15 20:58 | 1 |
| Beryllium | 0.0043 | | 0.0040 | 0.0040 | mg/L | | 11/05/15 16:00 | 11/06/15 20:58 | 1 |
| Boron | 1.2 | F1 | 0.10 | 0.050 | mg/L | | 11/05/15 16:00 | 11/06/15 20:58 | 1 |
| Cadmium | 0.0023 | J | 0.0050 | 0.0020 | mg/L | | 11/05/15 16:00 | 11/06/15 20:58 | 1 |

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
 Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B06

Lab Sample ID: 500-103200-26

Date Collected: 10/28/15 13:20

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 80.8

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Chromium | 0.12 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 20:58 | 1 |
| Cobalt | 0.020 | J | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 20:58 | 1 |
| Iron | 120 | | 0.20 | 0.20 | mg/L | | 11/05/15 16:00 | 11/06/15 20:58 | 1 |
| Lead | 0.15 | | 0.0075 | 0.0075 | mg/L | | 11/05/15 16:00 | 11/06/15 20:58 | 1 |
| Manganese | 0.75 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 20:58 | 1 |
| Nickel | 0.072 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 20:58 | 1 |
| Selenium | <0.050 | | 0.050 | 0.020 | mg/L | | 11/05/15 16:00 | 11/06/15 20:58 | 1 |
| Silver | <0.025 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 20:58 | 1 |
| Zinc | 0.55 | F1 | 0.10 | 0.020 | mg/L | | 11/05/15 16:00 | 11/06/15 20:58 | 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 | | 11/05/15 16:00 | 11/06/15 14:16 | 1 |
| Thallium | <0.0020 | | 0.0020 | 0.0020 | mg/L | | 11/05/15 16:00 | 11/06/15 14:16 | 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 | | 11/05/15 17:30 | 11/06/15 11:59 | 1 |

Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Mercury | 0.033 | | 0.018 | 0.0064 | mg/Kg | ☼ | 11/03/15 16:00 | 11/04/15 11:59 | 1 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|-------|------|---|----------|----------------|---------|
| pH | 7.88 | | 0.200 | 0.200 | SU | | | 11/04/15 18:07 | 1 |

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B07

Lab Sample ID: 500-103200-27

Date Collected: 10/28/15 13:30

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 80.8

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|---------|-----------|--------|---------|-------|---|----------------|----------------|---------|
| Acetone | <0.021 | | 0.021 | 0.0040 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Benzene | <0.0052 | | 0.0052 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Bromodichloromethane | <0.0052 | | 0.0052 | 0.00088 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Bromoform | <0.0052 | | 0.0052 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Bromomethane | <0.0052 | | 0.0052 | 0.0019 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| 2-Butanone (MEK) | <0.0052 | | 0.0052 | 0.0019 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Carbon disulfide | <0.0052 | | 0.0052 | 0.0019 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Carbon tetrachloride | <0.0052 | | 0.0052 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Chlorobenzene | <0.0052 | | 0.0052 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Chloroethane | <0.0052 | | 0.0052 | 0.0022 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Chloroform | <0.0052 | | 0.0052 | 0.0010 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Chloromethane | <0.0052 | | 0.0052 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| cis-1,2-Dichloroethene | <0.0052 | | 0.0052 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| cis-1,3-Dichloropropene | <0.0052 | | 0.0052 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Dibromochloromethane | <0.0052 | | 0.0052 | 0.00060 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| 1,1-Dichloroethane | <0.0052 | | 0.0052 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| 1,2-Dichloroethane | <0.0052 | | 0.0052 | 0.00077 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| 1,1-Dichloroethene | <0.0052 | | 0.0052 | 0.0019 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| 1,2-Dichloropropane | <0.0052 | | 0.0052 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| 1,3-Dichloropropene, Total | <0.0052 | | 0.0052 | 0.0015 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Ethylbenzene | <0.0052 | | 0.0052 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| 2-Hexanone | <0.0052 | | 0.0052 | 0.0016 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Methylene Chloride | <0.0052 | | 0.0052 | 0.0039 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| 4-Methyl-2-pentanone (MIBK) | <0.0052 | | 0.0052 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Methyl tert-butyl ether | <0.0052 | | 0.0052 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Styrene | <0.0052 | | 0.0052 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| 1,1,2,2-Tetrachloroethane | <0.0052 | | 0.0052 | 0.00083 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Tetrachloroethene | <0.0052 | | 0.0052 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Toluene | <0.0052 | | 0.0052 | 0.0018 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| trans-1,2-Dichloroethene | <0.0052 | | 0.0052 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| trans-1,3-Dichloropropene | <0.0052 | | 0.0052 | 0.0015 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| 1,1,1-Trichloroethane | <0.0052 | | 0.0052 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| 1,1,2-Trichloroethane | <0.0052 | | 0.0052 | 0.0010 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Trichloroethene | <0.0052 | | 0.0052 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Vinyl acetate | <0.0052 | | 0.0052 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Vinyl chloride | <0.0052 | | 0.0052 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Xylenes, Total | <0.010 | | 0.010 | 0.0019 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 13:22 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 97 | | 70 - 122 | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Dibromofluoromethane | 106 | | 75 - 120 | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 112 | | 70 - 134 | 10/29/15 07:20 | 11/04/15 13:22 | 1 |
| Toluene-d8 (Surr) | 96 | | 75 - 122 | 10/29/15 07:20 | 11/04/15 13:22 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Acenaphthene | <0.039 | | 0.039 | 0.0071 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Acenaphthylene | <0.039 | | 0.039 | 0.0052 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Anthracene | <0.039 | | 0.039 | 0.0066 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Benzo[a]anthracene | <0.039 | | 0.039 | 0.0053 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B07

Lab Sample ID: 500-103200-27

Date Collected: 10/28/15 13:30

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 80.8

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Benzo[a]pyrene | <0.039 | | 0.039 | 0.0076 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Benzo[b]fluoranthene | <0.039 | | 0.039 | 0.0085 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Benzo[g,h,i]perylene | <0.039 | | 0.039 | 0.013 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Benzo[k]fluoranthene | <0.039 | | 0.039 | 0.012 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Bis(2-chloroethyl)ether | <0.20 | | 0.20 | 0.059 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Bis(2-ethylhexyl) phthalate | <0.20 | | 0.20 | 0.072 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Butyl benzyl phthalate | <0.20 | | 0.20 | 0.075 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Carbazole | <0.20 | | 0.20 | 0.098 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 4-Chloroaniline | <0.79 | | 0.79 | 0.18 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 2-Chloronaphthalene | <0.20 | | 0.20 | 0.044 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 2-Chlorophenol | <0.20 | | 0.20 | 0.067 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Chrysene | <0.039 | | 0.039 | 0.011 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Dibenz(a,h)anthracene | <0.039 | | 0.039 | 0.0076 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Dibenzofuran | <0.20 | | 0.20 | 0.046 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 1,2-Dichlorobenzene | <0.20 | | 0.20 | 0.047 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 1,4-Dichlorobenzene | <0.20 | | 0.20 | 0.051 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 3,3'-Dichlorobenzidine | <0.20 | | 0.20 | 0.055 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 2,4-Dichlorophenol | <0.39 | | 0.39 | 0.094 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Diethyl phthalate | <0.20 | | 0.20 | 0.067 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 2,4-Dimethylphenol | <0.39 | | 0.39 | 0.15 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Dimethyl phthalate | <0.20 | | 0.20 | 0.051 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Di-n-butyl phthalate | <0.20 | | 0.20 | 0.060 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 4,6-Dinitro-2-methylphenol | <0.79 | | 0.79 | 0.32 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 2,4-Dinitrophenol | <0.79 | | 0.79 | 0.69 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 2,4-Dinitrotoluene | <0.20 | | 0.20 | 0.063 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 2,6-Dinitrotoluene | <0.20 | | 0.20 | 0.077 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Di-n-octyl phthalate | <0.20 | | 0.20 | 0.064 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Fluoranthene | <0.039 | | 0.039 | 0.0073 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Fluorene | <0.039 | | 0.039 | 0.0055 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Hexachlorobenzene | <0.079 | | 0.079 | 0.0091 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Hexachlorobutadiene | <0.20 | | 0.20 | 0.062 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Hexachlorocyclopentadiene | <0.79 | | 0.79 | 0.23 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Hexachloroethane | <0.20 | | 0.20 | 0.060 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.039 | | 0.039 | 0.010 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Isophorone | <0.20 | | 0.20 | 0.044 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 2-Methylnaphthalene | <0.039 | | 0.039 | 0.0072 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 2-Methylphenol | <0.20 | | 0.20 | 0.063 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 3 & 4 Methylphenol | <0.20 | | 0.20 | 0.066 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Naphthalene | <0.039 | | 0.039 | 0.0061 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 2-Nitroaniline | <0.20 | | 0.20 | 0.053 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 4-Nitroaniline | <0.39 | | 0.39 | 0.16 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Nitrobenzene | <0.039 | | 0.039 | 0.0098 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 4-Nitrophenol | <0.79 | | 0.79 | 0.37 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| N-Nitrosodi-n-propylamine | <0.20 | | 0.20 | 0.048 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| N-Nitrosodiphenylamine | <0.20 | | 0.20 | 0.046 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 2,2'-oxybis[1-chloropropane] | <0.20 | | 0.20 | 0.046 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Pentachlorophenol | <0.79 | | 0.79 | 0.63 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Phenanthrene | <0.039 | | 0.039 | 0.0055 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Phenol | <0.20 | | 0.20 | 0.087 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B07

Lab Sample ID: 500-103200-27

Date Collected: 10/28/15 13:30

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 80.8

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|-----------|-----------|----------|--------|-------|---|----------------|----------------|---------|
| Pyrene | <0.039 | | 0.039 | 0.0078 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 1,2,4-Trichlorobenzene | <0.20 | | 0.20 | 0.042 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 2,4,5-Trichlorophenol | <0.39 | | 0.39 | 0.090 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 2,4,6-Trichlorophenol | <0.39 | | 0.39 | 0.14 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 2-Fluorobiphenyl | 68 | | 25 - 119 | | | | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 2-Fluorophenol | 79 | | 25 - 110 | | | | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Nitrobenzene-d5 | 68 | | 25 - 115 | | | | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Phenol-d5 | 85 | | 31 - 110 | | | | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| Terphenyl-d14 | 87 | | 36 - 134 | | | | 11/04/15 15:26 | 11/07/15 00:14 | 1 |
| 2,4,6-Tribromophenol | 79 | | 35 - 137 | | | | 11/04/15 15:26 | 11/07/15 00:14 | 1 |

Method: 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Antimony | <1.1 | | 1.1 | 0.23 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:56 | 1 |
| Arsenic | 8.7 | | 0.56 | 0.26 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:56 | 1 |
| Barium | 76 | | 0.56 | 0.10 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:56 | 1 |
| Beryllium | 0.71 | | 0.22 | 0.048 | mg/Kg | ☼ | 11/05/15 11:45 | 11/06/15 12:58 | 1 |
| Boron | 3.8 | | 2.8 | 0.39 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:56 | 1 |
| Cadmium | 0.26 | | 0.11 | 0.032 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:56 | 1 |
| Chromium | 13 | B | 0.56 | 0.096 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:56 | 1 |
| Cobalt | 13 | | 0.28 | 0.063 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:56 | 1 |
| Copper | 17 | | 0.56 | 0.12 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:56 | 1 |
| Iron | 20000 | | 11 | 4.3 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:56 | 1 |
| Lead | 15 | | 0.28 | 0.14 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:56 | 1 |
| Magnesium | 14000 | | 5.6 | 2.3 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:56 | 1 |
| Manganese | 420 | | 0.56 | 0.11 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:56 | 1 |
| Nickel | 20 | | 0.56 | 0.15 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:56 | 1 |
| Selenium | 0.62 | | 0.56 | 0.28 | mg/Kg | ☼ | 11/05/15 11:45 | 11/06/15 12:58 | 1 |
| Silver | <0.28 | | 0.28 | 0.065 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:56 | 1 |
| Thallium | <0.56 | | 0.56 | 0.28 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:56 | 1 |
| Vanadium | 25 | | 0.28 | 0.082 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:56 | 1 |
| Zinc | 49 | | 1.1 | 0.35 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 20:56 | 1 |

Method: 6010B - Metals (ICP) - TCLP

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|---------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Beryllium | <0.0040 | | 0.0040 | 0.0040 | mg/L | | 11/10/15 16:30 | 11/11/15 18:15 | 1 |
| Chromium | <0.025 | | 0.025 | 0.010 | mg/L | | 11/10/15 16:30 | 11/11/15 18:15 | 1 |
| Iron | 0.22 | | 0.20 | 0.20 | mg/L | | 11/10/15 16:30 | 11/11/15 18:15 | 1 |
| Lead | <0.0075 | | 0.0075 | 0.0075 | mg/L | | 11/10/15 16:30 | 11/11/15 18:15 | 1 |
| Manganese | 0.036 | | 0.025 | 0.010 | mg/L | | 11/10/15 16:30 | 11/11/15 18:15 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|---------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Arsenic | 0.038 | J | 0.050 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 21:25 | 1 |
| Barium | 0.68 | | 0.50 | 0.050 | mg/L | | 11/05/15 16:00 | 11/06/15 21:25 | 1 |
| Beryllium | 0.0043 | | 0.0040 | 0.0040 | mg/L | | 11/05/15 16:00 | 11/06/15 21:25 | 1 |
| Boron | 1.5 | | 0.10 | 0.050 | mg/L | | 11/05/15 16:00 | 11/06/15 21:25 | 1 |
| Cadmium | <0.0050 | | 0.0050 | 0.0020 | mg/L | | 11/05/15 16:00 | 11/06/15 21:25 | 1 |

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B07

Lab Sample ID: 500-103200-27

Date Collected: 10/28/15 13:30

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 80.8

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Chromium | 0.11 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 21:25 | 1 |
| Cobalt | 0.021 | J | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 21:25 | 1 |
| Iron | 110 | | 0.20 | 0.20 | mg/L | | 11/05/15 16:00 | 11/06/15 21:25 | 1 |
| Lead | 0.035 | | 0.0075 | 0.0075 | mg/L | | 11/05/15 16:00 | 11/06/15 21:25 | 1 |
| Manganese | 0.48 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 21:25 | 1 |
| Nickel | 0.082 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 21:25 | 1 |
| Selenium | <0.050 | | 0.050 | 0.020 | mg/L | | 11/05/15 16:00 | 11/06/15 21:25 | 1 |
| Silver | <0.025 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 21:25 | 1 |
| Zinc | 0.42 | | 0.10 | 0.020 | mg/L | | 11/05/15 16:00 | 11/06/15 21:25 | 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 | | 11/10/15 16:30 | 11/12/15 11:11 | 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 | | 11/05/15 16:00 | 11/06/15 14:19 | 1 |
| Thallium | 0.0023 | | 0.0020 | 0.0020 | mg/L | | 11/05/15 16:00 | 11/06/15 14:19 | 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 | | 11/05/15 17:30 | 11/06/15 12:01 | 1 |

Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Mercury | 0.037 | | 0.020 | 0.0069 | mg/Kg | ☼ | 11/03/15 16:00 | 11/04/15 12:01 | 1 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|-------|------|---|----------|----------------|---------|
| pH | 8.26 | | 0.200 | 0.200 | SU | | | 11/04/15 18:13 | 1 |

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B09

Lab Sample ID: 500-103200-30

Date Collected: 10/28/15 13:50

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 79.7

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------------|-----------|--------|---------|-------|---|----------------|----------------|---------|
| Acetone | 0.041 | | 0.022 | 0.0042 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Benzene | <0.0054 | | 0.0054 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Bromodichloromethane | <0.0054 | | 0.0054 | 0.00092 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Bromoform | <0.0054 | | 0.0054 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Bromomethane | <0.0054 | | 0.0054 | 0.0020 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| 2-Butanone (MEK) | 0.0048 J | | 0.0054 | 0.0019 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Carbon disulfide | <0.0054 | | 0.0054 | 0.0020 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Carbon tetrachloride | <0.0054 | | 0.0054 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Chlorobenzene | <0.0054 | | 0.0054 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Chloroethane | <0.0054 | | 0.0054 | 0.0023 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Chloroform | <0.0054 | | 0.0054 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Chloromethane | <0.0054 | | 0.0054 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| cis-1,2-Dichloroethene | <0.0054 | | 0.0054 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| cis-1,3-Dichloropropene | <0.0054 | | 0.0054 | 0.0012 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Dibromochloromethane | <0.0054 | | 0.0054 | 0.00062 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| 1,1-Dichloroethane | <0.0054 | | 0.0054 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| 1,2-Dichloroethane | <0.0054 | | 0.0054 | 0.00080 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| 1,1-Dichloroethene | <0.0054 | | 0.0054 | 0.0020 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| 1,2-Dichloropropane | <0.0054 | | 0.0054 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| 1,3-Dichloropropane, Total | <0.0054 | | 0.0054 | 0.0015 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Ethylbenzene | <0.0054 | | 0.0054 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| 2-Hexanone | <0.0054 | | 0.0054 | 0.0017 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Methylene Chloride | <0.0054 | | 0.0054 | 0.0041 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| 4-Methyl-2-pentanone (MIBK) | <0.0054 | | 0.0054 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Methyl tert-butyl ether | <0.0054 | | 0.0054 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Styrene | <0.0054 | | 0.0054 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| 1,1,2,2-Tetrachloroethane | <0.0054 | | 0.0054 | 0.00086 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Tetrachloroethene | <0.0054 | | 0.0054 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Toluene | <0.0054 | | 0.0054 | 0.0019 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| trans-1,2-Dichloroethene | <0.0054 | | 0.0054 | 0.0014 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| trans-1,3-Dichloropropene | <0.0054 | | 0.0054 | 0.0015 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| 1,1,1-Trichloroethane | <0.0054 | | 0.0054 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| 1,1,2-Trichloroethane | <0.0054 | | 0.0054 | 0.0011 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Trichloroethene | <0.0054 | | 0.0054 | 0.0015 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Vinyl acetate | <0.0054 | | 0.0054 | 0.0015 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Vinyl chloride | <0.0054 | | 0.0054 | 0.0013 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Xylenes, Total | <0.011 | | 0.011 | 0.0020 | mg/Kg | ☼ | 10/29/15 07:20 | 11/04/15 14:35 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 97 | | 70 - 122 | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Dibromofluoromethane | 107 | | 75 - 120 | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 110 | | 70 - 134 | 10/29/15 07:20 | 11/04/15 14:35 | 1 |
| Toluene-d8 (Surr) | 98 | | 75 - 122 | 10/29/15 07:20 | 11/04/15 14:35 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Acenaphthene | <0.041 | | 0.041 | 0.0074 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Acenaphthylene | <0.041 | | 0.041 | 0.0055 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Anthracene | <0.041 | | 0.041 | 0.0069 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Benzo[a]anthracene | <0.041 | | 0.041 | 0.0056 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B09

Lab Sample ID: 500-103200-30

Date Collected: 10/28/15 13:50

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 79.7

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Benzo[a]pyrene | <0.041 | | 0.041 | 0.0080 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Benzo[b]fluoranthene | <0.041 | | 0.041 | 0.0089 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Benzo[g,h,i]perylene | <0.041 | | 0.041 | 0.013 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Benzo[k]fluoranthene | <0.041 | | 0.041 | 0.012 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Bis(2-chloroethyl)ether | <0.21 | | 0.21 | 0.062 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Bis(2-ethylhexyl) phthalate | <0.21 | | 0.21 | 0.076 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Butyl benzyl phthalate | <0.21 | | 0.21 | 0.079 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Carbazole | <0.21 | | 0.21 | 0.10 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 4-Chloroaniline | <0.83 | | 0.83 | 0.19 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 2-Chloronaphthalene | <0.21 | | 0.21 | 0.046 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 2-Chlorophenol | <0.21 | | 0.21 | 0.071 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Chrysene | <0.041 | | 0.041 | 0.011 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Dibenz(a,h)anthracene | <0.041 | | 0.041 | 0.0080 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Dibenzofuran | <0.21 | | 0.21 | 0.048 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 1,2-Dichlorobenzene | <0.21 | | 0.21 | 0.049 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 1,4-Dichlorobenzene | <0.21 | | 0.21 | 0.053 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 3,3'-Dichlorobenzidine | <0.21 | | 0.21 | 0.058 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 2,4-Dichlorophenol | <0.41 | | 0.41 | 0.098 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Diethyl phthalate | <0.21 | | 0.21 | 0.070 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 2,4-Dimethylphenol | <0.41 | | 0.41 | 0.16 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Dimethyl phthalate | <0.21 | | 0.21 | 0.054 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Di-n-butyl phthalate | <0.21 | | 0.21 | 0.063 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 4,6-Dinitro-2-methylphenol | <0.83 | | 0.83 | 0.33 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 2,4-Dinitrophenol | <0.83 | | 0.83 | 0.73 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 2,4-Dinitrotoluene | <0.21 | | 0.21 | 0.066 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 2,6-Dinitrotoluene | <0.21 | | 0.21 | 0.081 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Di-n-octyl phthalate | <0.21 | | 0.21 | 0.067 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Fluoranthene | <0.041 | | 0.041 | 0.0077 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Fluorene | <0.041 | | 0.041 | 0.0058 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Hexachlorobenzene | <0.083 | | 0.083 | 0.0096 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Hexachlorobutadiene | <0.21 | | 0.21 | 0.065 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Hexachlorocyclopentadiene | <0.83 | | 0.83 | 0.24 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Hexachloroethane | <0.21 | | 0.21 | 0.063 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.041 | | 0.041 | 0.011 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Isophorone | <0.21 | | 0.21 | 0.046 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 2-Methylnaphthalene | <0.041 | | 0.041 | 0.0076 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 2-Methylphenol | <0.21 | | 0.21 | 0.066 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 3 & 4 Methylphenol | <0.21 | | 0.21 | 0.069 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Naphthalene | <0.041 | | 0.041 | 0.0064 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 2-Nitroaniline | <0.21 | | 0.21 | 0.056 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 4-Nitroaniline | <0.41 | | 0.41 | 0.17 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Nitrobenzene | <0.041 | | 0.041 | 0.010 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 4-Nitrophenol | <0.83 | | 0.83 | 0.39 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| N-Nitrosodi-n-propylamine | <0.21 | | 0.21 | 0.051 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| N-Nitrosodiphenylamine | <0.21 | | 0.21 | 0.049 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 2,2'-oxybis[1-chloropropane] | <0.21 | | 0.21 | 0.048 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Pentachlorophenol | <0.83 | | 0.83 | 0.66 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Phenanthrene | <0.041 | | 0.041 | 0.0058 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Phenol | <0.21 | | 0.21 | 0.092 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B09

Lab Sample ID: 500-103200-30

Date Collected: 10/28/15 13:50

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 79.7

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|-----------|-----------|----------|--------|-------|---|----------------|----------------|---------|
| Pyrene | <0.041 | | 0.041 | 0.0082 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 1,2,4-Trichlorobenzene | <0.21 | | 0.21 | 0.045 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 2,4,5-Trichlorophenol | <0.41 | | 0.41 | 0.094 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 2,4,6-Trichlorophenol | <0.41 | | 0.41 | 0.14 | mg/Kg | ☼ | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 2-Fluorobiphenyl | 79 | | 25 - 119 | | | | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 2-Fluorophenol | 92 | | 25 - 110 | | | | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Nitrobenzene-d5 | 81 | | 25 - 115 | | | | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Phenol-d5 | 98 | | 31 - 110 | | | | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| Terphenyl-d14 | 85 | | 36 - 134 | | | | 11/04/15 15:26 | 11/07/15 00:43 | 1 |
| 2,4,6-Tribromophenol | 79 | | 35 - 137 | | | | 11/04/15 15:26 | 11/07/15 00:43 | 1 |

Method: 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|--------------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Antimony | <1.1 | | 1.1 | 0.24 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 21:10 | 1 |
| Arsenic | 5.9 | | 0.57 | 0.27 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 21:10 | 1 |
| Barium | 72 | | 0.57 | 0.11 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 21:10 | 1 |
| Beryllium | 0.67 | | 0.23 | 0.050 | mg/Kg | ☼ | 11/05/15 11:45 | 11/06/15 13:13 | 1 |
| Boron | 2.3 | J | 2.9 | 0.40 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 21:10 | 1 |
| Cadmium | 0.15 | | 0.11 | 0.033 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 21:10 | 1 |
| Chromium | 13 | B | 0.57 | 0.099 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 21:10 | 1 |
| Cobalt | 5.2 | | 0.29 | 0.065 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 21:10 | 1 |
| Copper | 15 | | 0.57 | 0.12 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 21:10 | 1 |
| Iron | 17000 | | 11 | 4.4 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 21:10 | 1 |
| Lead | 14 | | 0.29 | 0.14 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 21:10 | 1 |
| Magnesium | 3000 | | 5.7 | 2.3 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 21:10 | 1 |
| Manganese | 160 | | 0.57 | 0.11 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 21:10 | 1 |
| Nickel | 15 | | 0.57 | 0.16 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 21:10 | 1 |
| Selenium | 0.79 | | 0.57 | 0.28 | mg/Kg | ☼ | 11/05/15 11:45 | 11/06/15 13:13 | 1 |
| Silver | <0.29 | | 0.29 | 0.067 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 21:10 | 1 |
| Thallium | <0.57 | | 0.57 | 0.28 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 21:10 | 1 |
| Vanadium | 23 | | 0.29 | 0.084 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 21:10 | 1 |
| Zinc | 50 | | 1.1 | 0.36 | mg/Kg | ☼ | 11/05/15 11:45 | 11/05/15 21:10 | 1 |

Method: 6010B - Metals (ICP) - TCLP

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|-------------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Beryllium | <0.0040 | | 0.0040 | 0.0040 | mg/L | | 11/10/15 16:30 | 11/11/15 18:30 | 1 |
| Chromium | <0.025 | | 0.025 | 0.010 | mg/L | | 11/10/15 16:30 | 11/11/15 18:30 | 1 |
| Iron | 0.20 | | 0.20 | 0.20 | mg/L | | 11/10/15 16:30 | 11/11/15 18:30 | 1 |
| Lead | <0.0075 | | 0.0075 | 0.0075 | mg/L | | 11/10/15 16:30 | 11/11/15 18:30 | 1 |
| Manganese | 0.66 | | 0.025 | 0.010 | mg/L | | 11/10/15 16:30 | 11/11/15 18:30 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|---------------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Arsenic | 0.039 | J | 0.050 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 21:45 | 1 |
| Barium | 0.72 | | 0.50 | 0.050 | mg/L | | 11/05/15 16:00 | 11/06/15 21:45 | 1 |
| Beryllium | 0.0052 | | 0.0040 | 0.0040 | mg/L | | 11/05/15 16:00 | 11/06/15 21:45 | 1 |
| Boron | 1.3 | | 0.10 | 0.050 | mg/L | | 11/05/15 16:00 | 11/06/15 21:45 | 1 |
| Cadmium | <0.0050 | | 0.0050 | 0.0020 | mg/L | | 11/05/15 16:00 | 11/06/15 21:45 | 1 |

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

Client Sample ID: 2965-76-B09

Lab Sample ID: 500-103200-30

Date Collected: 10/28/15 13:50

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 79.7

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Chromium | 0.13 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 21:45 | 1 |
| Cobalt | 0.020 | J | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 21:45 | 1 |
| Iron | 140 | | 0.20 | 0.20 | mg/L | | 11/05/15 16:00 | 11/06/15 21:45 | 1 |
| Lead | 0.043 | | 0.0075 | 0.0075 | mg/L | | 11/05/15 16:00 | 11/06/15 21:45 | 1 |
| Manganese | 0.41 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 21:45 | 1 |
| Nickel | 0.093 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 21:45 | 1 |
| Selenium | <0.050 | | 0.050 | 0.020 | mg/L | | 11/05/15 16:00 | 11/06/15 21:45 | 1 |
| Silver | <0.025 | | 0.025 | 0.010 | mg/L | | 11/05/15 16:00 | 11/06/15 21:45 | 1 |
| Zinc | 0.47 | | 0.10 | 0.020 | mg/L | | 11/05/15 16:00 | 11/06/15 21:45 | 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 | | 11/10/15 16:30 | 11/12/15 11:15 | 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 | | 11/05/15 16:00 | 11/06/15 14:24 | 1 |
| Thallium | 0.0022 | | 0.0020 | 0.0020 | mg/L | | 11/05/15 16:00 | 11/06/15 14:24 | 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 | | 11/05/15 17:30 | 11/06/15 12:14 | 1 |

Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Mercury | 0.035 | | 0.021 | 0.0073 | mg/Kg | ☼ | 11/03/15 16:00 | 11/04/15 12:12 | 1 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|-------|------|---|----------|----------------|---------|
| pH | 7.44 | | 0.200 | 0.200 | SU | | | 11/04/15 18:36 | 1 |

Definitions/Glossary

Client: Andrews Engineering Inc.
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-7

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. |
| * | LCS or LCSD is outside acceptance limits. |

GC/MS Semi VOA

| Qualifier | Qualifier Description |
|-----------|--|
| F1 | MS and/or MSD Recovery is outside acceptance 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. |
| E | Result exceeded calibration range. |
| X | Surrogate is outside control limits |

Metals

| Qualifier | Qualifier Description |
|-----------|---|
| 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. |
| 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. |

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, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision level concentration |
| MDA | Minimum detectable activity |
| EDL | Estimated Detection Limit |
| MDC | Minimum detectable concentration |
| 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 |
| 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) |

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60464
 Phone: 708.534.5200 Fax: 708.534.5211

Report To _____ (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To _____ (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-103200
 Chain of Custody Number: _____
 Page 1 of 1
 Temperature °C of Cooler: _____

| Client | | Client Project # | | Preservative | | Parameter | | VOC | | SVOC | | TOTAL METAL | | SPLP/ICLP | | PH/CORROSIVITY | | % SOLIDS | | Preservative Key | |
|--------------|--------|------------------------|----------|---------------|--|-----------------|--------|-----|--|------|--|-------------|--|-----------|--|----------------|--|----------|--|---|--|
| AEI | | | | | | | | | | | | | | | | | | | | 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other | |
| Project Name | | Project Location/State | | Lab Project # | | Lab PM | | | | | | | | | | | | | | Comments | |
| AEG-021 | | WILMINGTON, IL | | | | J. HEY/WILL U. | | | | | | | | | | | | | | | |
| Lab ID | MS/MSD | Sample ID | | Sampling | | # of Containers | Matrix | | | | | | | | | | | | | | |
| | | Date | Time | | | | | | | | | | | | | | | | | | |
| 21 | | 2965-76-801 | 10/28/15 | 1245 | | | | | | | | | | | | | | | | 0-2' | |
| 22 | | 2965-76-802 | | 1300 | | | | | | | | | | | | | | | | | |
| 23 | | 2965-76-803 | | 1305 | | | | | | | | | | | | | | | | | |
| 24 | | 2965-76-804 | | 1315 | | | | | | | | | | | | | | | | | |
| 25 | | 2965-76-805 | | 1325 | | | | | | | | | | | | | | | | | |
| 26 | | 2965-76-806 | | 1320 | | | | | | | | | | | | | | | | | |
| 27 | | 2965-76-807 | | 1330 | | | | | | | | | | | | | | | | | |
| 28 | | 2965-76-808 | | 1335 | | | | | | | | | | | | | | | | | |
| 29 | | 2965-76-808 DUP | | 1340 | | | | | | | | | | | | | | | | | |
| 30 | | 2965-76-809 | | 1350 | | | | | | | | | | | | | | | | | |

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days 15 Days ___ Other

Requested Due Date _____

Sample Disposal

Return to Client

Disposal by Lab

Archive for _____ Months

(A fee may be assessed if samples are retained longer than 1 month)

| | | | | | | | |
|-------------------------------------|---------------------|-----------------------|-------------------|-----------------------------------|------------------------|-----------------------|-------------------|
| Relinquished By: <u>Jessica Hey</u> | Company: <u>AEI</u> | Date: <u>10/28/15</u> | Time: <u>1655</u> | Received By: <u>Theresa Scott</u> | Company: <u>TA-CHS</u> | Date: <u>10/28/15</u> | Time: <u>1655</u> |
| Relinquished By: _____ | Company: _____ | Date: _____ | Time: _____ | Received By: _____ | Company: _____ | Date: _____ | Time: _____ |
| Relinquished By: _____ | Company: _____ | Date: _____ | Time: _____ | Received By: _____ | Company: _____ | Date: _____ | Time: _____ |

Lab Courier: _____
 Shipped: _____
 Hand Delivered:

Matrix Key

WW - Wastewater SE - Sediment
 W - Water SO - Soil
 S - Soil L - Leachate
 SL - Sludge WI - Wipe
 MS - Miscellaneous DW - Drinking Water
 OL - Oil O - Other
 A - Air

Client Comments

Lab Comments:

END OF ATTACHMENT