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

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

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

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

I. Source Location Information

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

Project Name: FAP 347 (IL Route 38) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
50W 380 to 50W 780 blocks of IL 38 ISGS #3011-3 (Agricultural land)

City: Maple Park State: IL Zip Code: 60151

County: Kane Township: Virgil

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

Latitude: 41.897307 Longitude: -88.597361
(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: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: 60196-1096 Phone: 847-705-4159

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

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 an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 347 (IL Route 38)

Latitude: 41.897307 Longitude: -88.597361

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 appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations (See Attachment A) were sampled within the construction zone adjacent to ISGS #3011-3 (Agricultural land). Refer to PSI Report for ISGS #3011-3 (Agricultural land) including Table 4-4, and Figures 4-1A&B.

- 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]:

See attached data summary table and associated laboratory data package J107703-1, J107703-2, and J107703-3.

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

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

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

Company Name: Ecology and Environment, Inc.
 Street Address: 33 West Monroe Street
 City: Chicago State: IL Zip Code: 60603
 Phone: 312-578-9243
 Neil J. Brown

Printed Name:

Neil J. Brown

3/17/16

Date:

Licensed Professional Engineer or
Licensed Professional Geologist Signature:



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

Attachment A

ISGS# 3011-03 (Agricultural Land)

Analytical results from sample points collected at adjacent properties ISGS# 3011-05 and ISGS# 3011-06 were used to delineate areas of impact.

III (a)

Soil sample points:

- 3011-03-B01
- 3011-03-B02
- 3011-03-B03
- 3011-03-B05
- 3011-03-B06
- 3011-06-B01
- 3011-05-B01

III (b)

Lab packages with associated sample locations

J107703-1

- 3011-03-B01
- 3011-03-B02
- 3011-03-B03
- 3011-03-B05
- 3011-03-B06

J107703-2

- 3011-05-B01

J107703-3

- 3011-06-B01




Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A

Key to Data Tables

- MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

Criteria Qualifiers and Shading

- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-3 (Agricultural land)			Comparison Criteria			
	3011-03-B01	3011-03-B02	3011-03-B03	MACs			TACO
SAMPLE	3011-03-B01 (0-1)	3011-03-B02 (0-1)	3011-03-B03 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil	Soil				
DEPTH (feet)	0-1	0-1	0-1				
pH	8.88	8.74	8.41				
VOCs (mg/kg)							
Acetone	0.62	ND U	ND U	25	--	--	--
SVOCs (mg/kg)							
2-Methylnaphthalene	0.018 J	ND U	ND U	--	--	--	--
Acenaphthylene	ND U	0.015 J	ND U	--	--	--	--
Anthracene	0.01 J	0.015 J	0.0084 J	12,000	--	--	--
Benzo[a]anthracene	0.072	0.098	0.039	0.9	1.8	1.1	--
Benzo[a]pyrene	0.088	0.14 †	0.047	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.17	0.25	0.087	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.069	0.099	0.036 J	--	--	--	--
Benzo[k]fluoranthene	0.043	0.089	0.039	9	--	--	--
Chrysene	0.09	0.14	0.056	88	--	--	--
Fluoranthene	0.14	0.22	0.09	3,100	--	--	--
Indeno[1,2,3-cd]pyrene	0.052	0.088	ND U	0.9	1.6	0.9	--
Naphthalene	0.017 J	ND U	ND U	1.8	--	--	--
Phenanthrene	0.067	0.097	0.046	--	--	--	--
Pyrene	0.2	0.28	0.13	2,300	--	--	--
Inorganics (mg/kg)							
Antimony	ND U	ND U	ND U	5	--	--	--
Arsenic	2.8	3.7	1.5	11.3	13	--	--
Barium	28	54	40	1,500	--	--	--
Beryllium	0.24	0.26	0.16 J	22	--	--	--
Boron	7.1	8.3	6.6	40	--	--	--
Cadmium	0.18	0.11 J	0.046 J	5.2	--	--	--
Calcium	150,000	110,000	64,000	--	--	--	--
Chromium	9.2	10	6.6	21	--	--	--
Cobalt	3.3	4.6	2.9	20	--	--	--
Copper	11	20	9.2	2,900	--	--	--
Iron	6,500	8,200	5,300	15,000	15,900	--	--
Lead	130 †	55	9.6	107	--	--	--
Magnesium	90,000	50,000	28,000	325,000	--	--	--
Manganese	300	340	180	630	636	--	--
Mercury	0.011 J	0.015 J	0.019 J	0.89	--	--	--
Nickel	7.9	11	7.7	100	--	--	--
Potassium	560	700	450	--	--	--	--
Selenium	0.26 J	0.45 J	0.3 J	1.3	--	--	--
Sodium	1,700	2,400	1,500	--	--	--	--
Thallium	ND U	ND U	ND U	2.6	--	--	--
Vanadium	11	16	11	550	--	--	--
Zinc	57	60	23	5,100	--	--	--
TCLP Metals (mg/L)							
Barium	0.32 J	0.51	0.58	--	--	--	2
Boron	0.43 J	0.089 J	0.66	--	--	--	2
Lead	ND U	ND U	ND U	--	--	--	0.0075
Manganese	1 L	0.88 L	2.1 L	--	--	--	0.15
Nickel	ND U	ND U	0.011 J	--	--	--	0.1
Zinc	0.45 J	0.18 J	0.71	--	--	--	5
SPLP Metals (mg/L)							
Lead	NA	NA	NA	--	--	--	0.0075
Manganese	0.13	0.98 L	0.36 L	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-3 (Agricultural land)		Comparison Criteria			
	3011-03-B05	3011-03-B06	MACs			TACO
SAMPLE	3011-03-B05 (0-1)	3011-03-B06 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil				
DEPTH (feet)	0-1	0-1				
pH	8.54	8.4				
VOCs (mg/kg)						
Acetone	ND U	ND U	25	--	--	--
SVOCs (mg/kg)						
2-Methylnaphthalene	ND U	ND U	--	--	--	--
Acenaphthylene	ND U	ND U	--	--	--	--
Anthracene	0.0097 J	0.012 J	12,000	--	--	--
Benzo[a]anthracene	0.059	0.059	0.9	1.8	1.1	--
Benzo[a]pyrene	0.079	0.069	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.15	0.12	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.06	0.04	--	--	--	--
Benzo[k]fluoranthene	0.051	0.047	9	--	--	--
Chrysene	0.088	0.072	88	--	--	--
Fluoranthene	0.12	0.13	3,100	--	--	--
Indeno[1,2,3-cd]pyrene	0.052	0.037 J	0.9	1.6	0.9	--
Naphthalene	ND U	ND U	1.8	--	--	--
Phenanthrene	0.056	0.064	--	--	--	--
Pyrene	0.19	0.12 J	2,300	--	--	--
Inorganics (mg/kg)						
Antimony	ND U	ND UJ	5	--	--	--
Arsenic	3.6	5.7	11.3	13	--	--
Barium	56	60	1,500	--	--	--
Beryllium	0.23	0.35 J	22	--	--	--
Boron	6	8.3 J	40	--	--	--
Cadmium	0.12	0.11	5.2	--	--	--
Calcium	160,000	100,000	--	--	--	--
Chromium	8	12 J	21	--	--	--
Cobalt	4	6.2	20	--	--	--
Copper	8.9	15	2,900	--	--	--
Iron	8,800	14,000	15,000	15,900	--	--
Lead	19	89 J	107	--	--	--
Magnesium	88,000	36,000	325,000	--	--	--
Manganese	430	400	630	636	--	--
Mercury	0.02	0.019 J	0.89	--	--	--
Nickel	8.7	14	100	--	--	--
Potassium	600	760 J	--	--	--	--
Selenium	0.27 J	0.75 J	1.3	--	--	--
Sodium	1,400	2,000	--	--	--	--
Thallium	ND U	0.35 J	2.6	--	--	--
Vanadium	14	18 J	550	--	--	--
Zinc	43	62	5,100	--	--	--
TCLP Metals (mg/L)						
Barium	0.6	0.61	--	--	--	2
Boron	0.74	0.11 J	--	--	--	2
Lead	ND U	0.014 L	--	--	--	0.0075
Manganese	0.36 L	0.83 L	--	--	--	0.15
Nickel	ND U	ND U	--	--	--	0.1
Zinc	0.14 J	0.21 J	--	--	--	5
SPLP Metals (mg/L)						
Lead	NA	0.63 J L	--	--	--	0.0075
Manganese	0.58 L	1.4 J L	--	--	--	0.15

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A
CONTAMINANTS OF CONCERN

SITE	ISGS #3011-5 (Wiltse Family Farm)	Comparison Criteria			
		MACs			TACO
BORING	3011-05-B01				
SAMPLE	3011-05-B01 (0-1)				
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.88	Most Stringent	Within an MSA	Within Chicago	SCGIER
VOCs (mg/kg)					
Methyl tert-butyl ether	ND U	0.32	--	--	--
SVOCs (mg/kg)					
2-Methylnaphthalene	0.082	--	--	--	--
Acenaphthene	0.098	570	--	--	--
Acenaphthylene	0.066	--	--	--	--
Anthracene	0.12	12,000	--	--	--
Benzo[a]anthracene	0.49	0.9	1.8	1.1	--
Benzo[a]pyrene	0.58 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	1.1 †	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.34	--	--	--	--
Benzo[k]fluoranthene	0.37	9	--	--	--
Carbazole	0.26	0.6	--	--	--
Chrysene	0.85	88	--	--	--
Dibenzo(a,h)anthracene	0.093 †	0.09	0.42	0.2	--
Dibenzofuran	0.21	--	--	--	--
Fluoranthene	1.9	3,100	--	--	--
Fluorene	0.11	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.35	0.9	1.6	0.9	--
Naphthalene	0.39	1.8	--	--	--
Phenanthrene	2.4	--	--	--	--
Pyrene	2.4	2,300	--	--	--
Inorganics (mg/kg)					
Antimony	1.4	5	--	--	--
Arsenic	3.6	11.3	13	--	--
Barium	50	1,500	--	--	--
Beryllium	0.24	22	--	--	--
Boron	6.1	40	--	--	--
Cadmium	0.16	5.2	--	--	--
Calcium	91,000	--	--	--	--
Chromium	9	21	--	--	--
Cobalt	4.8	20	--	--	--
Copper	12	2,900	--	--	--
Iron	8,000	15,000	15,900	--	--
Lead	54	107	--	--	--
Magnesium	42,000	325,000	--	--	--
Manganese	380	630	636	--	--
Mercury	ND U	0.89	--	--	--
Nickel	9.8	100	--	--	--
Potassium	690	--	--	--	--
Selenium	0.29 J	1.3	--	--	--
Sodium	2,000	--	--	--	--
Vanadium	14	550	--	--	--
Zinc	61	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.42 J	--	--	--	2
Boron	0.62	--	--	--	2
Manganese	1.6 L	--	--	--	0.15
Nickel	ND U	--	--	--	0.1
Zinc	0.16 J	--	--	--	5
SPLP Metals (mg/L)					
Manganese	0.83 L	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-6 (Agricultural Land)		Comparison Criteria			
	3011-06-B01		MACs			TACO
BORING	3011-06-B01		Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE	3011-06-B01 (0-1)	3011-06-B01 (0-1)D				
MATRIX	Soil	Soil				
DEPTH (feet)	0-1	0-1				
pH	8.55	8.61				
VOCs (mg/kg)						
Acetone	ND U	ND U	25	--	--	--
Methyl tert-butyl ether	ND U	ND U	0.32	--	--	--
SVOCs (mg/kg)						
2-Methylnaphthalene	ND U	ND U	--	--	--	--
Acenaphthene	0.0069 J	ND U	570	--	--	--
Acenaphthylene	0.012 J	0.018 J	--	--	--	--
Anthracene	0.028 J	0.024 J	12,000	--	--	--
Benzo[a]anthracene	0.16	0.15	0.9	1.8	1.1	--
Benzo[a]pyrene	0.18 †	0.17 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.28	0.29	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.2	0.2	--	--	--	--
Benzo[k]fluoranthene	0.11	0.082	9	--	--	--
Bis(2-ethylhexyl) phthalate	ND U	ND U	46	--	--	--
Chrysene	0.18	0.18	88	--	--	--
Dibenzo(a,h)anthracene	ND U	0.052	0.09	0.42	0.2	--
Fluoranthene	0.25	0.24	3,100	--	--	--
Fluorene	0.0084 J	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.16	0.17	0.9	1.6	0.9	--
Naphthalene	ND U	0.01 J	1.8	--	--	--
Phenanthrene	0.17	0.18	--	--	--	--
Pyrene	0.53	0.53	2,300	--	--	--
Inorganics (mg/kg)						
Arsenic	5.6	4.9	11.3	13	--	--
Barium	61	74	1,500	--	--	--
Beryllium	0.35	0.35	22	--	--	--
Boron	5.2	7.1	40	--	--	--
Cadmium	0.082 J	0.13	5.2	--	--	--
Calcium	50,000	89,000	--	--	--	--
Chromium	11	12	21	--	--	--
Cobalt	6.6	5.9	20	--	--	--
Copper	13	16	2,900	--	--	--
Iron	11,000	10,000	15,000	15,900	--	--
Lead	36	44	107	--	--	--
Magnesium	22,000	32,000	325,000	--	--	--
Manganese	390	360	630	636	--	--
Mercury	0.017	0.026	0.89	--	--	--
Nickel	15	13	100	--	--	--
Potassium	910	810	--	--	--	--
Selenium	0.28 J	ND U	1.3	--	--	--
Silver	ND U	ND U	4.4	--	--	--
Sodium	1,500	1,300	--	--	--	--
Vanadium	19	18	550	--	--	--
Zinc	59	66	5,100	--	--	--
TCLP Metals (mg/L)						
Barium	0.49 J	0.53	--	--	--	2
Boron	0.58	0.63	--	--	--	2
Cobalt	ND U	ND U	--	--	--	1
Lead	ND U	ND U	--	--	--	0.0075
Manganese	1.1 L	0.81 L	--	--	--	0.15
Nickel	ND U	ND U	--	--	--	0.1
Zinc	ND U	0.15 J	--	--	--	5
SPLP Metals (mg/L)						
Lead	NA	NA	--	--	--	0.0075
Manganese	0.99 L	1.3 L	--	--	--	0.15

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: 500-107703-1
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 12:40:04 PM
Jodie Bracken, Project Management Assistant II
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Designee for
Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Job ID: 500-107703-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107703-1

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-324219: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: The laboratory control sample duplicate (LCSD) for batch 500-324350 recovered outside control limits for the following analyte: 1,2-Dichloropropane. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260B: Due to internal standard (ISTD) area failures, a dilution was required for the following samples: 3011-03-B01 (0-1) (500-107703-4). The samples were initially analyzed without dilution. All internal standards were outside the QC limits. The sample were re-analyzed with similar results. No usable data was obtained from the un-diluted runs. The samples were re-analyzed at a dilution using the methanol extraction method. All internal standard areas were within limits in the diluted run. Elevated reporting limits have been provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one base/neutral surrogate outside acceptance limits: 3011-03-B02 (0-1) (500-107703-3), 3011-03-B01 (0-1) (500-107703-4), 3011-03-B03 (0-1) (500-107703-5), 3011-03-B05 (0-1) (500-107703-6), (500-107703-E-1-B MS) and (500-107703-E-1-C MSD). The laboratory's SOP allows one acid and/or one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-324037 and analytical batch 500-324749 had 1 analyte outside control limits: Bis(2-chloroethyl)ether; therefore, corrective action was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B06 (0-1)

Lab Sample ID: 500-107703-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.064		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.012	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.13		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.12	F1	0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.059		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.072		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.12		0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.047		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.069		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.037	J	0.038	0.0099	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.040		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.7		0.57	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	60		0.57	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.35	F1	0.23	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	8.3	F2 F1	2.8	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11		0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	100000	B	110	37	mg/Kg	10	☼	6010B	Total/NA
Chromium	12	F2 B F1	0.57	0.098	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.2		0.28	0.064	mg/Kg	1	☼	6010B	Total/NA
Copper	15		0.57	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	14000		11	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	89	F2	0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	36000		5.7	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	400	B	0.57	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	14		0.57	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	760	F2 F1	28	4.6	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.75	F2 F1	0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Sodium	2000		57	7.5	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.35	J	0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18	F2 F1	0.28	0.083	mg/Kg	1	☼	6010B	Total/NA
Zinc	62		1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.61		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J	0.50	0.050	mg/L	1		6010B	TCLP
Lead	0.014		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	0.83		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.21	J B	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.63		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	1.4	F1	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.019	J	0.020	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.40		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-03-B04 (0-1)

Lab Sample ID: 500-107703-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.045		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0077	J	0.037	0.0062	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.10		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.11		0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.041		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.061		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B04 (0-1) (Continued)

Lab Sample ID: 500-107703-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.094		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.044		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.056		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.030	J	0.037	0.0097	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.035	J	0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.19	J	0.87	0.18	mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.1		0.44	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	39		0.44	0.080	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.16	J	0.17	0.038	mg/Kg	1	☼	6010B	Total/NA
Boron	9.1		2.2	0.30	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.085	J	0.087	0.025	mg/Kg	1	☼	6010B	Total/NA
Calcium	170000	B	87	28	mg/Kg	10	☼	6010B	Total/NA
Chromium	6.4	B	0.44	0.075	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.9		0.22	0.049	mg/Kg	1	☼	6010B	Total/NA
Copper	8.8		0.44	0.094	mg/Kg	1	☼	6010B	Total/NA
Iron	5900		8.7	3.4	mg/Kg	1	☼	6010B	Total/NA
Lead	28		0.22	0.11	mg/Kg	1	☼	6010B	Total/NA
Magnesium	96000		44	18	mg/Kg	10	☼	6010B	Total/NA
Manganese	320	B	0.44	0.086	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.2		0.44	0.12	mg/Kg	1	☼	6010B	Total/NA
Potassium	500		22	3.6	mg/Kg	1	☼	6010B	Total/NA
Sodium	1300		44	5.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	10		0.22	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	36		0.87	0.28	mg/Kg	1	☼	6010B	Total/NA
Barium	0.38	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.79		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.074	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.19		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.014	J	0.018	0.0096	mg/Kg	1	☼	7471B	Total/NA
pH	9.01		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-03-B02 (0-1)

Lab Sample ID: 500-107703-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.015	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.097		0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.015	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.22		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.28		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.098		0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.14		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.25		0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.089		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.14		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.088		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.099		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.7		0.59	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	54		0.59	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.26		0.24	0.051	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B02 (0-1) (Continued)

Lab Sample ID: 500-107703-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	8.3		3.0	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11	J	0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	110000	B	120	38	mg/Kg	10	☼	6010B	Total/NA
Chromium	10	B	0.59	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.6		0.30	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.59	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	8200		12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	55		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	50000		5.9	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	340	B	0.59	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	11		0.59	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	700		30	4.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.45	J	0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	2400		59	7.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.30	0.086	mg/Kg	1	☼	6010B	Total/NA
Zinc	60		1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.51		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.089	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.88		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.18	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.98		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.015	J	0.017	0.0089	mg/Kg	1	☼	7471B	Total/NA
pH	8.74		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1



Client Sample ID: 3011-03-B03 (0-1)

Lab Sample ID: 500-107703-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Phenanthrene	0.046		0.037	0.0052	mg/Kg	1	*	*	8270D	Total/NA
Anthracene	0.0084	J	0.037	0.0062	mg/Kg	1	*	*	8270D	Total/NA
Fluoranthene	0.090		0.037	0.0069	mg/Kg	1	*	*	8270D	Total/NA
Pyrene	0.13		0.037	0.0074	mg/Kg	1	*	*	8270D	Total/NA
Benzo[a]anthracene	0.039		0.037	0.0050	mg/Kg	1	*	*	8270D	Total/NA
Chrysene	0.056		0.037	0.010	mg/Kg	1	*	*	8270D	Total/NA
Benzo[b]fluoranthene	0.087		0.037	0.0080	mg/Kg	1	*	*	8270D	Total/NA
Benzo[k]fluoranthene	0.039		0.037	0.011	mg/Kg	1	*	*	8270D	Total/NA
Benzo[a]pyrene	0.047		0.037	0.0072	mg/Kg	1	*	*	8270D	Total/NA
Benzo[g,h,i]perylene	0.036	J	0.037	0.012	mg/Kg	1	*	*	8270D	Total/NA
Arsenic	1.5		0.55	0.25	mg/Kg	1	*	*	6010B	Total/NA
Barium	40		0.55	0.10	mg/Kg	1	*	*	6010B	Total/NA
Beryllium	0.16	J	0.22	0.047	mg/Kg	1	*	*	6010B	Total/NA
Boron	6.6		2.7	0.38	mg/Kg	1	*	*	6010B	Total/NA
Cadmium	0.046	J	0.11	0.032	mg/Kg	1	*	*	6010B	Total/NA
Calcium	64000	B	110	35	mg/Kg	10	*	*	6010B	Total/NA
Chromium	6.6	B	0.55	0.094	mg/Kg	1	*	*	6010B	Total/NA
Cobalt	2.9		0.27	0.062	mg/Kg	1	*	*	6010B	Total/NA
Copper	9.2		0.55	0.12	mg/Kg	1	*	*	6010B	Total/NA
Iron	5300		11	4.2	mg/Kg	1	*	*	6010B	Total/NA
Lead	9.6		0.27	0.14	mg/Kg	1	*	*	6010B	Total/NA
Magnesium	28000		5.5	2.2	mg/Kg	1	*	*	6010B	Total/NA
Manganese	180	B	0.55	0.11	mg/Kg	1	*	*	6010B	Total/NA
Nickel	7.7		0.55	0.15	mg/Kg	1	*	*	6010B	Total/NA
Potassium	450		27	4.5	mg/Kg	1	*	*	6010B	Total/NA
Selenium	0.30	J	0.55	0.27	mg/Kg	1	*	*	6010B	Total/NA
Sodium	1500		55	7.2	mg/Kg	1	*	*	6010B	Total/NA
Vanadium	11		0.27	0.080	mg/Kg	1	*	*	6010B	Total/NA
Zinc	23		1.1	0.35	mg/Kg	1	*	*	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B03 (0-1) (Continued)

Lab Sample ID: 500-107703-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.58		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.66		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	2.1		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.71	B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.36		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.019	J	0.020	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.41		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-03-B05 (0-1)

Lab Sample ID: 500-107703-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.056		0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0097	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.12		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.19		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.059		0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.088		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.15		0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.051		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.079		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.052		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.060		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.6		0.50	0.23	mg/Kg	1	☼	6010B	Total/NA
Barium	56		0.50	0.092	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.23		0.20	0.043	mg/Kg	1	☼	6010B	Total/NA
Boron	6.0		2.5	0.35	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12		0.10	0.029	mg/Kg	1	☼	6010B	Total/NA
Calcium	160000	B	100	32	mg/Kg	10	☼	6010B	Total/NA
Chromium	8.0	B	0.50	0.086	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.0		0.25	0.057	mg/Kg	1	☼	6010B	Total/NA
Copper	8.9		0.50	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	8800		10	3.9	mg/Kg	1	☼	6010B	Total/NA
Lead	19		0.25	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	88000		50	20	mg/Kg	10	☼	6010B	Total/NA
Manganese	430	B	0.50	0.099	mg/Kg	1	☼	6010B	Total/NA
Nickel	8.7		0.50	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	600		25	4.1	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.27	J	0.50	0.25	mg/Kg	1	☼	6010B	Total/NA
Sodium	1400		50	6.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.25	0.073	mg/Kg	1	☼	6010B	Total/NA
Zinc	43		1.0	0.32	mg/Kg	1	☼	6010B	Total/NA
Barium	0.60		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.74		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.36		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.14	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.58		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.020		0.018	0.0096	mg/Kg	1	☼	7471B	Total/NA
pH	8.54		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107703-1	3011-03-B06 (0-1)	Solid	02/17/16 10:45	02/18/16 07:30
500-107703-2	3011-03-B04 (0-1)	Solid	02/17/16 10:50	02/18/16 07:30
500-107703-3	3011-03-B02 (0-1)	Solid	02/17/16 11:00	02/18/16 07:30
500-107703-5	3011-03-B03 (0-1)	Solid	02/17/16 11:15	02/18/16 07:30
500-107703-6	3011-03-B05 (0-1)	Solid	02/17/16 12:55	02/18/16 07:30

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B06 (0-1)

Lab Sample ID: 500-107703-1

Date Collected: 02/17/16 10:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0033	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Benzene	<0.0042		0.0042	0.00094	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Bromodichloromethane	<0.0042		0.0042	0.00072	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Bromoform	<0.0042		0.0042	0.00087	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Bromomethane	<0.0042	*	0.0042	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
2-Butanone (MEK)	<0.0042		0.0042	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Carbon disulfide	<0.0042		0.0042	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Carbon tetrachloride	<0.0042		0.0042	0.00091	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Chlorobenzene	<0.0042		0.0042	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Chloroethane	<0.0042		0.0042	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Chloroform	<0.0042		0.0042	0.00083	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Chloromethane	<0.0042		0.0042	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
cis-1,2-Dichloroethene	<0.0042		0.0042	0.00087	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
cis-1,3-Dichloropropene	<0.0042		0.0042	0.00097	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Dibromochloromethane	<0.0042		0.0042	0.00049	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
1,1-Dichloroethane	<0.0042		0.0042	0.00088	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
1,2-Dichloroethane	<0.0042		0.0042	0.00063	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
1,1-Dichloroethene	<0.0042		0.0042	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
1,2-Dichloropropane	<0.0042		0.0042	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
1,3-Dichloropropane, Total	<0.0042		0.0042	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Ethylbenzene	<0.0042		0.0042	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Methylene Chloride	<0.0042		0.0042	0.0032	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.00088	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Methyl tert-butyl ether	<0.0042		0.0042	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Styrene	<0.0042		0.0042	0.00099	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
1,1,1,2-Tetrachloroethane	<0.0042		0.0042	0.00067	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Tetrachloroethene	<0.0042		0.0042	0.00088	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Toluene	<0.0042		0.0042	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
trans-1,2-Dichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
trans-1,3-Dichloropropene	<0.0042		0.0042	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
1,1,1-Trichloroethane	<0.0042		0.0042	0.00099	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
1,1,2-Trichloroethane	<0.0042		0.0042	0.00082	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Trichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Vinyl acetate	<0.0042		0.0042	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Vinyl chloride	<0.0042		0.0042	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Xylenes, Total	<0.0085		0.0085	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 122	02/18/16 08:10	02/24/16 18:26	1
Dibromofluoromethane	94		75 - 120	02/18/16 08:10	02/24/16 18:26	1
1,2-Dichloroethane-d4 (Surr)	86		70 - 134	02/18/16 08:10	02/24/16 18:26	1
Toluene-d8 (Surr)	104		75 - 122	02/18/16 08:10	02/24/16 18:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Bis(2-chloroethyl)ether	<0.19	F1 F2 *	0.19	0.057	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B06 (0-1)

Lab Sample ID: 500-107703-1

Date Collected: 02/17/16 10:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Hexachlorocyclopentadiene	<0.77	F1	0.77	0.22	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2-Methylnaphthalene	<0.038	F1	0.038	0.0070	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2,4-Dinitrophenol	<0.77	F1	0.77	0.67	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
4-Bromophenyl phenyl ether	<0.19	F1	0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
N-Nitrosodiphenylamine	<0.19	F1	0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
4,6-Dinitro-2-methylphenol	<0.77	F2	0.77	0.31	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Phenanthrene	0.064		0.038	0.0053	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Anthracene	0.012	J	0.038	0.0064	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Fluoranthene	0.13		0.038	0.0071	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Pyrene	0.12	F1	0.038	0.0076	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Butyl benzyl phthalate	<0.19	F1	0.19	0.073	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Benzo[a]anthracene	0.059		0.038	0.0051	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B06 (0-1)

Lab Sample ID: 500-107703-1

Date Collected: 02/17/16 10:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.072		0.038	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Bis(2-ethylhexyl) phthalate	<0.19	F1	0.19	0.070	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Di-n-octyl phthalate	<0.19	F1	0.19	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Benzo[b]fluoranthene	0.12		0.038	0.0083	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Benzo[k]fluoranthene	0.047		0.038	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Benzo[a]pyrene	0.069		0.038	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Indeno[1,2,3-cd]pyrene	0.037	J	0.038	0.0099	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Benzo[g,h,i]perylene	0.040		0.038	0.012	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	84		25 - 110	02/23/16 07:13	02/28/16 15:27	1
Phenol-d5	79		31 - 110	02/23/16 07:13	02/28/16 15:27	1
Nitrobenzene-d5	82		25 - 115	02/23/16 07:13	02/28/16 15:27	1
2-Fluorobiphenyl	75		25 - 119	02/23/16 07:13	02/28/16 15:27	1
2,4,6-Tribromophenol	95		35 - 137	02/23/16 07:13	02/28/16 15:27	1
Terphenyl-d14	102		36 - 134	02/23/16 07:13	02/28/16 15:27	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1	F2 F1	1.1	0.24	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Arsenic	5.7		0.57	0.26	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Barium	60		0.57	0.10	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Beryllium	0.35	F1	0.23	0.049	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Boron	8.3	F2 F1	2.8	0.40	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Cadmium	0.11		0.11	0.033	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Calcium	100000	B	110	37	mg/Kg	☼	02/25/16 09:30	02/27/16 22:10	10
Chromium	12	F2 B F1	0.57	0.098	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Cobalt	6.2		0.28	0.064	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Copper	15		0.57	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Iron	14000		11	4.4	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Lead	89	F2	0.28	0.14	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Magnesium	36000		5.7	2.3	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Manganese	400	B	0.57	0.11	mg/Kg	☼	02/25/16 09:30	02/27/16 23:24	1
Nickel	14		0.57	0.15	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Potassium	760	F2 F1	28	4.6	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Selenium	0.75	F2 F1	0.57	0.28	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Silver	<0.28		0.28	0.066	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Sodium	2000		57	7.5	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Thallium	0.35	J	0.57	0.28	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Vanadium	18	F2 F1	0.28	0.083	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Zinc	62		1.1	0.36	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.61		0.50	0.050	mg/L		02/23/16 16:01	02/26/16 22:28	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/26/16 22:28	1
Boron	0.11	J	0.50	0.050	mg/L		02/23/16 16:01	02/26/16 22:28	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B06 (0-1)

Lab Sample ID: 500-107703-1

Date Collected: 02/17/16 10:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/26/16 22:28	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:28	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:28	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/26/16 22:28	1
Lead	0.014		0.0075	0.0075	mg/L		02/23/16 16:01	02/26/16 22:28	1
Manganese	0.83		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:28	1
Nickel	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:28	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/26/16 22:28	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:28	1
Zinc	0.21	J B	0.50	0.020	mg/L		02/23/16 16:01	02/26/16 22:28	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.63		0.0075	0.0075	mg/L		02/23/16 16:10	02/27/16 19:53	1
Manganese	1.4	F1	0.025	0.010	mg/L		02/23/16 16:10	02/27/16 19:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 16:58	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 16:58	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:01	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019	J	0.020	0.010	mg/Kg	☼	02/23/16 15:15	02/24/16 14:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.40		0.200	0.200	SU			02/23/16 11:05	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B04 (0-1)

Lab Sample ID: 500-107703-2

Date Collected: 02/17/16 10:50

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0034	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Benzene	<0.0045		0.0045	0.00099	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Bromodichloromethane	<0.0045		0.0045	0.00075	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Bromoform	<0.0045		0.0045	0.00091	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Bromomethane	<0.0045	*	0.0045	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Carbon disulfide	<0.0045		0.0045	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Carbon tetrachloride	<0.0045		0.0045	0.00095	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Chloroethane	<0.0045		0.0045	0.0019	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Chloroform	<0.0045		0.0045	0.00087	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00091	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Dibromochloromethane	<0.0045		0.0045	0.00051	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
1,1-Dichloroethane	<0.0045		0.0045	0.00092	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
1,2-Dichloroethane	<0.0045		0.0045	0.00066	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
1,1-Dichloroethene	<0.0045		0.0045	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Methylene Chloride	<0.0045		0.0045	0.0034	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00092	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Styrene	<0.0045		0.0045	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
1,1,2,2-Tetrachloroethane	<0.0045		0.0045	0.00071	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Tetrachloroethene	<0.0045		0.0045	0.00093	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Toluene	<0.0045		0.0045	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00086	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Vinyl acetate	<0.0045		0.0045	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1
Xylenes, Total	<0.0089		0.0089	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 18:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 122	02/18/16 08:10	02/24/16 18:51	1
Dibromofluoromethane	94		75 - 120	02/18/16 08:10	02/24/16 18:51	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 134	02/18/16 08:10	02/24/16 18:51	1
Toluene-d8 (Surr)	105		75 - 122	02/18/16 08:10	02/24/16 18:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.083	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.056	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B04 (0-1)

Lab Sample ID: 500-107703-2

Date Collected: 02/17/16 10:50

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
4-Chloroaniline	<0.75		0.75	0.18	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Hexachlorocyclopentadiene	<0.75		0.75	0.22	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
2-Methylnaphthalene	<0.037		0.037	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
2,4-Dinitrophenol	<0.75		0.75	0.66	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
4-Nitrophenol	<0.75		0.75	0.36	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Hexachlorobenzene	<0.075		0.075	0.0087	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Phenanthrene	0.045		0.037	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Anthracene	0.0077 J		0.037	0.0062	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Carbazole	<0.19		0.19	0.093	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Fluoranthene	0.10		0.037	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Pyrene	0.11		0.037	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Benzo[a]anthracene	0.041		0.037	0.0050	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B04 (0-1)

Lab Sample ID: 500-107703-2

Date Collected: 02/17/16 10:50

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.061		0.037	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Benzo[b]fluoranthene	0.094		0.037	0.0081	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Benzo[k]fluoranthene	0.044		0.037	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Benzo[a]pyrene	0.056		0.037	0.0072	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Indeno[1,2,3-cd]pyrene	0.030	J	0.037	0.0097	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
Benzo[g,h,i]perylene	0.035	J	0.037	0.012	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 15:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	88		25 - 110	02/23/16 07:13	02/28/16 15:55	1
Phenol-d5	88		31 - 110	02/23/16 07:13	02/28/16 15:55	1
Nitrobenzene-d5	90		25 - 115	02/23/16 07:13	02/28/16 15:55	1
2-Fluorobiphenyl	80		25 - 119	02/23/16 07:13	02/28/16 15:55	1
2,4,6-Tribromophenol	102		35 - 137	02/23/16 07:13	02/28/16 15:55	1
Terphenyl-d14	122		36 - 134	02/23/16 07:13	02/28/16 15:55	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.19	J	0.87	0.18	mg/Kg	☼	02/25/16 09:30	02/26/16 16:20	1
Arsenic	2.1		0.44	0.20	mg/Kg	☼	02/25/16 09:30	02/26/16 16:20	1
Barium	39		0.44	0.080	mg/Kg	☼	02/25/16 09:30	02/26/16 16:20	1
Beryllium	0.16	J	0.17	0.038	mg/Kg	☼	02/25/16 09:30	02/26/16 16:20	1
Boron	9.1		2.2	0.30	mg/Kg	☼	02/25/16 09:30	02/26/16 16:20	1
Cadmium	0.085	J	0.087	0.025	mg/Kg	☼	02/25/16 09:30	02/26/16 16:20	1
Calcium	170000	B	87	28	mg/Kg	☼	02/25/16 09:30	02/27/16 22:30	10
Chromium	6.4	B	0.44	0.075	mg/Kg	☼	02/25/16 09:30	02/26/16 16:20	1
Cobalt	2.9		0.22	0.049	mg/Kg	☼	02/25/16 09:30	02/26/16 16:20	1
Copper	8.8		0.44	0.094	mg/Kg	☼	02/25/16 09:30	02/26/16 16:20	1
Iron	5900		8.7	3.4	mg/Kg	☼	02/25/16 09:30	02/26/16 16:20	1
Lead	28		0.22	0.11	mg/Kg	☼	02/25/16 09:30	02/26/16 16:20	1
Magnesium	96000		44	18	mg/Kg	☼	02/25/16 09:30	02/27/16 22:30	10
Manganese	320	B	0.44	0.086	mg/Kg	☼	02/25/16 09:30	02/27/16 23:56	1
Nickel	7.2		0.44	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 16:20	1
Potassium	500		22	3.6	mg/Kg	☼	02/25/16 09:30	02/26/16 16:20	1
Selenium	<0.44		0.44	0.22	mg/Kg	☼	02/25/16 09:30	02/26/16 16:20	1
Silver	<0.22		0.22	0.051	mg/Kg	☼	02/25/16 09:30	02/26/16 16:20	1
Sodium	1300		44	5.7	mg/Kg	☼	02/25/16 09:30	02/26/16 16:20	1
Thallium	<0.44		0.44	0.21	mg/Kg	☼	02/25/16 09:30	02/26/16 16:20	1
Vanadium	10		0.22	0.064	mg/Kg	☼	02/25/16 09:30	02/26/16 16:20	1
Zinc	36		0.87	0.28	mg/Kg	☼	02/25/16 09:30	02/26/16 16:20	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.38	J	0.50	0.050	mg/L		02/23/16 16:01	02/26/16 22:35	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/26/16 22:35	1
Boron	0.11	J	0.50	0.050	mg/L		02/23/16 16:01	02/26/16 22:35	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B04 (0-1)

Lab Sample ID: 500-107703-2

Date Collected: 02/17/16 10:50

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/26/16 22:35	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:35	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:35	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/26/16 22:35	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/23/16 16:01	02/26/16 22:35	1
Manganese	0.79		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:35	1
Nickel	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:35	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/26/16 22:35	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:35	1
Zinc	0.074	J B	0.50	0.020	mg/L		02/23/16 16:01	02/26/16 22:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.19		0.025	0.010	mg/L		02/23/16 16:10	02/27/16 20:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 17:02	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 17:02	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:02	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.018	0.0096	mg/Kg	☼	02/23/16 15:15	02/24/16 14:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.01		0.200	0.200	SU			02/23/16 11:15	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B02 (0-1)

Lab Sample ID: 500-107703-3

Date Collected: 02/17/16 11:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0034	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Benzene	<0.0044		0.0044	0.00098	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Bromodichloromethane	<0.0044		0.0044	0.00074	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Bromoform	<0.0044		0.0044	0.00090	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Bromomethane	<0.0044		0.0044	0.0016	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
2-Butanone (MEK)	<0.0044		0.0044	0.0016	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Carbon disulfide	<0.0044		0.0044	0.0016	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Carbon tetrachloride	<0.0044		0.0044	0.00094	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Chlorobenzene	<0.0044		0.0044	0.0010	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Chloroethane	<0.0044		0.0044	0.0018	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Chloroform	<0.0044		0.0044	0.00086	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Chloromethane	<0.0044		0.0044	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
cis-1,2-Dichloroethene	<0.0044		0.0044	0.00090	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
cis-1,3-Dichloropropene	<0.0044		0.0044	0.0010	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Dibromochloromethane	<0.0044		0.0044	0.00051	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
1,1-Dichloroethane	<0.0044		0.0044	0.00090	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
1,2-Dichloroethane	<0.0044		0.0044	0.00065	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
1,1-Dichloroethene	<0.0044		0.0044	0.0016	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
1,2-Dichloropropane	<0.0044	*	0.0044	0.0012	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
1,3-Dichloropropene, Total	<0.0044		0.0044	0.0012	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Ethylbenzene	<0.0044		0.0044	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Methylene Chloride	<0.0044		0.0044	0.0033	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.00090	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Methyl tert-butyl ether	<0.0044		0.0044	0.0010	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Styrene	<0.0044		0.0044	0.0010	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
1,1,2,2-Tetrachloroethane	<0.0044		0.0044	0.00070	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Tetrachloroethene	<0.0044		0.0044	0.00091	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Toluene	<0.0044		0.0044	0.0015	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
trans-1,2-Dichloroethene	<0.0044		0.0044	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
trans-1,3-Dichloropropene	<0.0044		0.0044	0.0012	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
1,1,1-Trichloroethane	<0.0044		0.0044	0.0010	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
1,1,2-Trichloroethane	<0.0044		0.0044	0.00085	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Trichloroethene	<0.0044		0.0044	0.0012	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Vinyl acetate	<0.0044		0.0044	0.0012	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Vinyl chloride	<0.0044		0.0044	0.0010	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1
Xylenes, Total	<0.0088		0.0088	0.0016	mg/Kg	☼	02/18/16 08:10	02/25/16 18:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 122	02/18/16 08:10	02/25/16 18:11	1
Dibromofluoromethane	94		75 - 120	02/18/16 08:10	02/25/16 18:11	1
1,2-Dichloroethane-d4 (Surr)	83		70 - 134	02/18/16 08:10	02/25/16 18:11	1
Toluene-d8 (Surr)	105		75 - 122	02/18/16 08:10	02/25/16 18:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B02 (0-1)

Lab Sample ID: 500-107703-3

Date Collected: 02/17/16 11:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
2-Methylnaphthalene	<0.038		0.038	0.0071	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
2,4-Dinitrophenol	<0.77		0.77	0.68	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Acenaphthylene	0.015	J	0.038	0.0051	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
4-Nitrophenol	<0.77		0.77	0.37	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Pentachlorophenol	<0.77		0.77	0.62	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Phenanthrene	0.097		0.038	0.0054	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Anthracene	0.015	J	0.038	0.0064	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Fluoranthene	0.22		0.038	0.0071	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Pyrene	0.28		0.038	0.0076	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Benzo[a]anthracene	0.098		0.038	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B02 (0-1)

Lab Sample ID: 500-107703-3

Date Collected: 02/17/16 11:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.14		0.038	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Benzo[b]fluoranthene	0.25		0.038	0.0083	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Benzo[k]fluoranthene	0.089		0.038	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Benzo[a]pyrene	0.14		0.038	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Indeno[1,2,3-cd]pyrene	0.088		0.038	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
Benzo[g,h,i]perylene	0.099		0.038	0.012	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:13	02/28/16 16:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	89		25 - 110	02/23/16 07:13	02/28/16 16:24	1
Phenol-d5	86		31 - 110	02/23/16 07:13	02/28/16 16:24	1
Nitrobenzene-d5	83		25 - 115	02/23/16 07:13	02/28/16 16:24	1
2-Fluorobiphenyl	78		25 - 119	02/23/16 07:13	02/28/16 16:24	1
2,4,6-Tribromophenol	100		35 - 137	02/23/16 07:13	02/28/16 16:24	1
Terphenyl-d14	148	X	36 - 134	02/23/16 07:13	02/28/16 16:24	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	☼	02/25/16 09:30	02/26/16 16:25	1
Arsenic	3.7		0.59	0.27	mg/Kg	☼	02/25/16 09:30	02/26/16 16:25	1
Barium	54		0.59	0.11	mg/Kg	☼	02/25/16 09:30	02/26/16 16:25	1
Beryllium	0.26		0.24	0.051	mg/Kg	☼	02/25/16 09:30	02/26/16 16:25	1
Boron	8.3		3.0	0.41	mg/Kg	☼	02/25/16 09:30	02/26/16 16:25	1
Cadmium	0.11	J	0.12	0.034	mg/Kg	☼	02/25/16 09:30	02/26/16 16:25	1
Calcium	110000	B	120	38	mg/Kg	☼	02/25/16 09:30	02/27/16 22:35	10
Chromium	10	B	0.59	0.10	mg/Kg	☼	02/25/16 09:30	02/26/16 16:25	1
Cobalt	4.6		0.30	0.067	mg/Kg	☼	02/25/16 09:30	02/26/16 16:25	1
Copper	20		0.59	0.13	mg/Kg	☼	02/25/16 09:30	02/26/16 16:25	1
Iron	8200		12	4.6	mg/Kg	☼	02/25/16 09:30	02/26/16 16:25	1
Lead	55		0.30	0.15	mg/Kg	☼	02/25/16 09:30	02/26/16 16:25	1
Magnesium	50000		5.9	2.4	mg/Kg	☼	02/25/16 09:30	02/26/16 16:25	1
Manganese	340	B	0.59	0.12	mg/Kg	☼	02/25/16 09:30	02/28/16 00:01	1
Nickel	11		0.59	0.16	mg/Kg	☼	02/25/16 09:30	02/26/16 16:25	1
Potassium	700		30	4.8	mg/Kg	☼	02/25/16 09:30	02/26/16 16:25	1
Selenium	0.45	J	0.59	0.29	mg/Kg	☼	02/25/16 09:30	02/26/16 16:25	1
Silver	<0.30		0.30	0.069	mg/Kg	☼	02/25/16 09:30	02/26/16 16:25	1
Sodium	2400		59	7.8	mg/Kg	☼	02/25/16 09:30	02/26/16 16:25	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	02/25/16 09:30	02/26/16 16:25	1
Vanadium	16		0.30	0.086	mg/Kg	☼	02/25/16 09:30	02/26/16 16:25	1
Zinc	60		1.2	0.37	mg/Kg	☼	02/25/16 09:30	02/26/16 16:25	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.51		0.50	0.050	mg/L		02/23/16 16:01	02/26/16 22:42	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/26/16 22:42	1
Boron	0.089	J	0.50	0.050	mg/L		02/23/16 16:01	02/26/16 22:42	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B02 (0-1)

Lab Sample ID: 500-107703-3

Date Collected: 02/17/16 11:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/26/16 22:42	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:42	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:42	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/26/16 22:42	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/23/16 16:01	02/26/16 22:42	1
Manganese	0.88		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:42	1
Nickel	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:42	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/26/16 22:42	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:42	1
Zinc	0.18	J B	0.50	0.020	mg/L		02/23/16 16:01	02/26/16 22:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.98		0.025	0.010	mg/L		02/23/16 16:10	02/27/16 20:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 17:06	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 17:06	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:08	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	J	0.017	0.0089	mg/Kg	☼	02/23/16 15:15	02/24/16 14:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.74		0.200	0.200	SU			02/23/16 11:20	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B03 (0-1)

Lab Sample ID: 500-107703-5

Date Collected: 02/17/16 11:15

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0035	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Benzene	<0.0046		0.0046	0.0010	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Bromodichloromethane	<0.0046		0.0046	0.00077	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Bromoform	<0.0046		0.0046	0.00093	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
2-Butanone (MEK)	<0.0046		0.0046	0.0016	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Carbon disulfide	<0.0046		0.0046	0.0017	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Carbon tetrachloride	<0.0046		0.0046	0.00098	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Chlorobenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Chloroethane	<0.0046		0.0046	0.0019	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Chloroform	<0.0046		0.0046	0.00089	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Chloromethane	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
cis-1,2-Dichloroethene	<0.0046		0.0046	0.00093	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
cis-1,3-Dichloropropene	<0.0046		0.0046	0.0010	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Dibromochloromethane	<0.0046		0.0046	0.00053	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
1,1-Dichloroethane	<0.0046		0.0046	0.00094	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
1,2-Dichloroethane	<0.0046		0.0046	0.00068	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
1,1-Dichloroethene	<0.0046		0.0046	0.0017	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
1,2-Dichloropropane	<0.0046	*	0.0046	0.0012	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
1,3-Dichloropropene, Total	<0.0046		0.0046	0.0013	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Ethylbenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Methylene Chloride	<0.0046		0.0046	0.0035	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.00094	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Methyl tert-butyl ether	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Styrene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
1,1,2,2-Tetrachloroethane	<0.0046		0.0046	0.00073	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Tetrachloroethene	<0.0046		0.0046	0.00095	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Toluene	<0.0046		0.0046	0.0016	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
trans-1,2-Dichloroethene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
trans-1,3-Dichloropropene	<0.0046		0.0046	0.0013	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
1,1,1-Trichloroethane	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
1,1,2-Trichloroethane	<0.0046		0.0046	0.00088	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Trichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Vinyl acetate	<0.0046		0.0046	0.0012	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Vinyl chloride	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1
Xylenes, Total	<0.0091		0.0091	0.0017	mg/Kg	☼	02/18/16 08:10	02/25/16 19:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 122	02/18/16 08:10	02/25/16 19:01	1
Dibromofluoromethane	96		75 - 120	02/18/16 08:10	02/25/16 19:01	1
1,2-Dichloroethane-d4 (Surr)	87		70 - 134	02/18/16 08:10	02/25/16 19:01	1
Toluene-d8 (Surr)	104		75 - 122	02/18/16 08:10	02/25/16 19:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.083	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.056	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B03 (0-1)

Lab Sample ID: 500-107703-5

Date Collected: 02/17/16 11:15

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
4-Chloroaniline	<0.75		0.75	0.18	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
2-Methylnaphthalene	<0.037		0.037	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
2,4-Dinitrophenol	<0.75		0.75	0.66	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Phenanthrene	0.046		0.037	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Anthracene	0.0084 J		0.037	0.0062	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Carbazole	<0.19		0.19	0.093	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Fluoranthene	0.090		0.037	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Pyrene	0.13		0.037	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Benzo[a]anthracene	0.039		0.037	0.0050	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B03 (0-1)

Lab Sample ID: 500-107703-5

Date Collected: 02/17/16 11:15

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.056		0.037	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Benzo[b]fluoranthene	0.087		0.037	0.0080	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Benzo[k]fluoranthene	0.039		0.037	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Benzo[a]pyrene	0.047		0.037	0.0072	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0097	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
Benzo[g,h,i]perylene	0.036	J	0.037	0.012	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 17:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	96		25 - 110	02/23/16 07:13	02/28/16 17:21	1
Phenol-d5	88		31 - 110	02/23/16 07:13	02/28/16 17:21	1
Nitrobenzene-d5	91		25 - 115	02/23/16 07:13	02/28/16 17:21	1
2-Fluorobiphenyl	83		25 - 119	02/23/16 07:13	02/28/16 17:21	1
2,4,6-Tribromophenol	99		35 - 137	02/23/16 07:13	02/28/16 17:21	1
Terphenyl-d14	163	X	36 - 134	02/23/16 07:13	02/28/16 17:21	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	☼	02/25/16 09:30	02/26/16 16:36	1
Arsenic	1.5		0.55	0.25	mg/Kg	☼	02/25/16 09:30	02/26/16 16:36	1
Barium	40		0.55	0.10	mg/Kg	☼	02/25/16 09:30	02/26/16 16:36	1
Beryllium	0.16	J	0.22	0.047	mg/Kg	☼	02/25/16 09:30	02/26/16 16:36	1
Boron	6.6		2.7	0.38	mg/Kg	☼	02/25/16 09:30	02/26/16 16:36	1
Cadmium	0.046	J	0.11	0.032	mg/Kg	☼	02/25/16 09:30	02/26/16 16:36	1
Calcium	64000	B	110	35	mg/Kg	☼	02/25/16 09:30	02/27/16 22:44	10
Chromium	6.6	B	0.55	0.094	mg/Kg	☼	02/25/16 09:30	02/26/16 16:36	1
Cobalt	2.9		0.27	0.062	mg/Kg	☼	02/25/16 09:30	02/26/16 16:36	1
Copper	9.2		0.55	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 16:36	1
Iron	5300		11	4.2	mg/Kg	☼	02/25/16 09:30	02/26/16 16:36	1
Lead	9.6		0.27	0.14	mg/Kg	☼	02/25/16 09:30	02/26/16 16:36	1
Magnesium	28000		5.5	2.2	mg/Kg	☼	02/25/16 09:30	02/26/16 16:36	1
Manganese	180	B	0.55	0.11	mg/Kg	☼	02/25/16 09:30	02/28/16 00:12	1
Nickel	7.7		0.55	0.15	mg/Kg	☼	02/25/16 09:30	02/26/16 16:36	1
Potassium	450		27	4.5	mg/Kg	☼	02/25/16 09:30	02/26/16 16:36	1
Selenium	0.30	J	0.55	0.27	mg/Kg	☼	02/25/16 09:30	02/26/16 16:36	1
Silver	<0.27		0.27	0.064	mg/Kg	☼	02/25/16 09:30	02/26/16 16:36	1
Sodium	1500		55	7.2	mg/Kg	☼	02/25/16 09:30	02/26/16 16:36	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	02/25/16 09:30	02/26/16 16:36	1
Vanadium	11		0.27	0.080	mg/Kg	☼	02/25/16 09:30	02/26/16 16:36	1
Zinc	23		1.1	0.35	mg/Kg	☼	02/25/16 09:30	02/26/16 16:36	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.58		0.50	0.050	mg/L		02/23/16 16:01	02/26/16 22:55	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/26/16 22:55	1
Boron	0.66		0.50	0.050	mg/L		02/23/16 16:01	02/26/16 22:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B03 (0-1)

Lab Sample ID: 500-107703-5

Date Collected: 02/17/16 11:15

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/26/16 22:55	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:55	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:55	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/26/16 22:55	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/23/16 16:01	02/26/16 22:55	1
Manganese	2.1		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:55	1
Nickel	0.011	J	0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:55	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/26/16 22:55	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:55	1
Zinc	0.71	B	0.50	0.020	mg/L		02/23/16 16:01	02/26/16 22:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.36		0.025	0.010	mg/L		02/23/16 16:10	02/27/16 20:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 17:15	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 17:15	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:11	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019	J	0.020	0.010	mg/Kg	☼	02/23/16 15:15	02/24/16 14:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.41		0.200	0.200	SU			02/23/16 11:30	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B05 (0-1)

Lab Sample ID: 500-107703-6

Date Collected: 02/17/16 12:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0030	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Benzene	<0.0039		0.0039	0.00086	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Bromodichloromethane	<0.0039		0.0039	0.00065	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Bromoform	<0.0039		0.0039	0.00079	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Bromomethane	<0.0039		0.0039	0.0014	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
2-Butanone (MEK)	<0.0039		0.0039	0.0014	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Carbon disulfide	<0.0039		0.0039	0.0014	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Carbon tetrachloride	<0.0039		0.0039	0.00083	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Chlorobenzene	<0.0039		0.0039	0.00092	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Chloroethane	<0.0039		0.0039	0.0016	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Chloroform	<0.0039		0.0039	0.00076	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Chloromethane	<0.0039		0.0039	0.00093	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
cis-1,2-Dichloroethene	<0.0039		0.0039	0.00079	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
cis-1,3-Dichloropropene	<0.0039		0.0039	0.00088	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Dibromochloromethane	<0.0039		0.0039	0.00045	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
1,1-Dichloroethane	<0.0039		0.0039	0.00080	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
1,2-Dichloroethane	<0.0039		0.0039	0.00057	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
1,1-Dichloroethene	<0.0039		0.0039	0.0014	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
1,2-Dichloropropane	<0.0039	*	0.0039	0.0010	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
1,3-Dichloropropene, Total	<0.0039		0.0039	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Ethylbenzene	<0.0039		0.0039	0.00096	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Methylene Chloride	<0.0039		0.0039	0.0029	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.00080	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Methyl tert-butyl ether	<0.0039		0.0039	0.00092	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Styrene	<0.0039		0.0039	0.00091	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
1,1,2,2-Tetrachloroethane	<0.0039		0.0039	0.00062	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Tetrachloroethene	<0.0039		0.0039	0.00081	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Toluene	<0.0039		0.0039	0.0013	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
trans-1,2-Dichloroethene	<0.0039		0.0039	0.00097	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
trans-1,3-Dichloropropene	<0.0039		0.0039	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
1,1,1-Trichloroethane	<0.0039		0.0039	0.00090	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
1,1,2-Trichloroethane	<0.0039		0.0039	0.00075	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Trichloroethene	<0.0039		0.0039	0.0010	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Vinyl acetate	<0.0039		0.0039	0.0010	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Vinyl chloride	<0.0039		0.0039	0.00092	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1
Xylenes, Total	<0.0078		0.0078	0.0014	mg/Kg	☼	02/18/16 08:10	02/25/16 19:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 122	02/18/16 08:10	02/25/16 19:27	1
Dibromofluoromethane	92		75 - 120	02/18/16 08:10	02/25/16 19:27	1
1,2-Dichloroethane-d4 (Surr)	81		70 - 134	02/18/16 08:10	02/25/16 19:27	1
Toluene-d8 (Surr)	104		75 - 122	02/18/16 08:10	02/25/16 19:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B05 (0-1)

Lab Sample ID: 500-107703-6

Date Collected: 02/17/16 12:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
2-Methylnaphthalene	<0.038		0.038	0.0071	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
2,4-Dinitrophenol	<0.77		0.77	0.68	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
4-Nitrophenol	<0.77		0.77	0.37	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Pentachlorophenol	<0.77		0.77	0.62	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Phenanthrene	0.056		0.038	0.0054	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Anthracene	0.0097 J		0.038	0.0064	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Fluoranthene	0.12		0.038	0.0071	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Pyrene	0.19		0.038	0.0076	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Benzo[a]anthracene	0.059		0.038	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B05 (0-1)

Lab Sample ID: 500-107703-6

Date Collected: 02/17/16 12:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.088		0.038	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Benzo[b]fluoranthene	0.15		0.038	0.0083	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Benzo[k]fluoranthene	0.051		0.038	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Benzo[a]pyrene	0.079		0.038	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Indeno[1,2,3-cd]pyrene	0.052		0.038	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
Benzo[g,h,i]perylene	0.060		0.038	0.012	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:13	02/28/16 17:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	95		25 - 110	02/23/16 07:13	02/28/16 17:50	1
Phenol-d5	81		31 - 110	02/23/16 07:13	02/28/16 17:50	1
Nitrobenzene-d5	91		25 - 115	02/23/16 07:13	02/28/16 17:50	1
2-Fluorobiphenyl	82		25 - 119	02/23/16 07:13	02/28/16 17:50	1
2,4,6-Tribromophenol	107		35 - 137	02/23/16 07:13	02/28/16 17:50	1
Terphenyl-d14	174 X		36 - 134	02/23/16 07:13	02/28/16 17:50	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.21	mg/Kg	☼	02/25/16 09:30	02/26/16 16:41	1
Arsenic	3.6		0.50	0.23	mg/Kg	☼	02/25/16 09:30	02/26/16 16:41	1
Barium	56		0.50	0.092	mg/Kg	☼	02/25/16 09:30	02/26/16 16:41	1
Beryllium	0.23		0.20	0.043	mg/Kg	☼	02/25/16 09:30	02/26/16 16:41	1
Boron	6.0		2.5	0.35	mg/Kg	☼	02/25/16 09:30	02/26/16 16:41	1
Cadmium	0.12		0.10	0.029	mg/Kg	☼	02/25/16 09:30	02/26/16 16:41	1
Calcium	160000	B	100	32	mg/Kg	☼	02/25/16 09:30	02/27/16 22:48	10
Chromium	8.0	B	0.50	0.086	mg/Kg	☼	02/25/16 09:30	02/26/16 16:41	1
Cobalt	4.0		0.25	0.057	mg/Kg	☼	02/25/16 09:30	02/26/16 16:41	1
Copper	8.9		0.50	0.11	mg/Kg	☼	02/25/16 09:30	02/26/16 16:41	1
Iron	8800		10	3.9	mg/Kg	☼	02/25/16 09:30	02/26/16 16:41	1
Lead	19		0.25	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 16:41	1
Magnesium	88000		50	20	mg/Kg	☼	02/25/16 09:30	02/27/16 22:48	10
Manganese	430	B	0.50	0.099	mg/Kg	☼	02/25/16 09:30	02/28/16 00:17	1
Nickel	8.7		0.50	0.14	mg/Kg	☼	02/25/16 09:30	02/26/16 16:41	1
Potassium	600		25	4.1	mg/Kg	☼	02/25/16 09:30	02/26/16 16:41	1
Selenium	0.27	J	0.50	0.25	mg/Kg	☼	02/25/16 09:30	02/26/16 16:41	1
Silver	<0.25		0.25	0.059	mg/Kg	☼	02/25/16 09:30	02/26/16 16:41	1
Sodium	1400		50	6.6	mg/Kg	☼	02/25/16 09:30	02/26/16 16:41	1
Thallium	<0.50		0.50	0.25	mg/Kg	☼	02/25/16 09:30	02/26/16 16:41	1
Vanadium	14		0.25	0.073	mg/Kg	☼	02/25/16 09:30	02/26/16 16:41	1
Zinc	43		1.0	0.32	mg/Kg	☼	02/25/16 09:30	02/26/16 16:41	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.60		0.50	0.050	mg/L		02/23/16 16:01	02/26/16 23:02	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/26/16 23:02	1
Boron	0.74		0.50	0.050	mg/L		02/23/16 16:01	02/26/16 23:02	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B05 (0-1)

Lab Sample ID: 500-107703-6

Date Collected: 02/17/16 12:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/26/16 23:02	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:02	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:02	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/26/16 23:02	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/23/16 16:01	02/26/16 23:02	1
Manganese	0.36		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:02	1
Nickel	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:02	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/26/16 23:02	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:02	1
Zinc	0.14	J B	0.50	0.020	mg/L		02/23/16 16:01	02/26/16 23:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.58		0.025	0.010	mg/L		02/23/16 16:10	02/27/16 21:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 17:19	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 17:19	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:17	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020		0.018	0.0096	mg/Kg	☼	02/23/16 15:15	02/24/16 14:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.54		0.200	0.200	SU			02/23/16 11:36	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	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.
*	LCS or LCSD is outside acceptance limits.
E	Result exceeded calibration range.
X	Surrogate is outside control limits

Metals

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.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
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.

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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

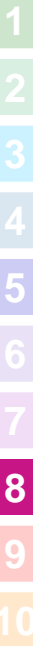
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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



TestAmerica

THE LEADER IN ENVIRONMENT

2417 Bond Street, University Park, IL
Phone: 708.534.5200 Fax: 708.!



500-107703 COC

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 #: 500-107703

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: 31.2, 9.2, 4.3, 3

Client		Client Project #		Preservative							Preservative Key 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		Lab Project #		Parameter								
Project Location/State		Lab Project #		Parameter								
Sampler		Lab PM		Parameter								
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Voc	Svoc	Total HAP	Total HAP	P-HAP	Comments
			Date	Time								
1		3011-03-B06 (01)	2/17/16	1045	2 S		X	X	X	X	X	
2		3011-03-B04 (01)	2/17/16	1050	2 S		X	X	X	X	X	
3		3011-03-B02 (01)	2/17/16	1100	2 S		X	X	X	X	X	
4		3011-03-B01 (01)	2/17/16	1110	2 S		X	X	X	X	X	
5		3011-03-B03 (01)	2/17/16	1115	2 S		X	X	X	X	X	
6		3011-03-B05 (01)	2/17/16	1255	2 S		X	X	X	X	X	
2-17-16												

Turnaround Time Required (Business Days)

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

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>[Signature]</u>	Company: <u>[Signature]</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>
Relinquished By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1645</u>	Received By: <u>[Signature]</u>	Company: <u>TA-CHT</u>	Date: <u>2/18/16</u>	Time: <u>0730</u>

Lab Courier: TA
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:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107703-1

Login Number: 107703

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

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ANALYTICAL REPORT

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

TestAmerica Job ID: 500-107703-2
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 12:41:29 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

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-2

Job ID: 500-107703-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107703-2

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: Due to internal standard (ISTD) area failures, a dilution was required for the following samples: 3011-05-B02 (0-1) (500-107703-8). The samples were initially analyzed without dilution. All internal standards were outside the QC limits. The sample were re-analyzed with similar results. No usable data was obtained from the un-diluted runs. The samples were re-analyzed at a dilution using the methanol extraction method. All internal standard areas were within limits in the diluted run. Elevated reporting limits have been provided.

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with batches 324522 and 324843: Vinyl Acetate. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one base/neutral surrogate outside acceptance limits: 3011-05-B01 (0-1) (500-107703-7), 3011-05-B02 (0-1) (500-107703-8), (500-107703-E-1-B MS) and (500-107703-E-1-C MSD). The laboratory's SOP allows one acid and/or one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-324037 and analytical batch 500-324749 had 1 analyte outside control limits: Bis(2-chloroethyl)ether; therefore, corrective action was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-2

Client Sample ID: 3011-05-B01 (0-1)

Lab Sample ID: 500-107703-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.39		0.038	0.0059	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.082		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.066		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.098		0.038	0.0069	mg/Kg	1	☼	8270D	Total/NA
Dibenzofuran	0.21		0.19	0.045	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.11		0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	2.4		0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.12		0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Carbazole	0.26		0.19	0.096	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	1.9		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.49		0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.85		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1.1		0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.37		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.58		0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.35		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.093		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.34		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Pyrene - DL	2.4		0.077	0.015	mg/Kg	2	☼	8270D	Total/NA
Antimony	1.4		1.0	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	3.6		0.50	0.23	mg/Kg	1	☼	6010B	Total/NA
Barium	50		0.50	0.092	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.24		0.20	0.043	mg/Kg	1	☼	6010B	Total/NA
Boron	6.1		2.5	0.35	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16		0.10	0.029	mg/Kg	1	☼	6010B	Total/NA
Calcium	91000	B	100	32	mg/Kg	10	☼	6010B	Total/NA
Chromium	9.0	B	0.50	0.086	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.8		0.25	0.057	mg/Kg	1	☼	6010B	Total/NA
Copper	12		0.50	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	8000		10	3.9	mg/Kg	1	☼	6010B	Total/NA
Lead	54		0.25	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	42000		5.0	2.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	380	B	0.50	0.099	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.8		0.50	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	690		25	4.1	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.29	J	0.50	0.25	mg/Kg	1	☼	6010B	Total/NA
Sodium	2000		50	6.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.25	0.073	mg/Kg	1	☼	6010B	Total/NA
Zinc	61		1.0	0.32	mg/Kg	1	☼	6010B	Total/NA
Barium	0.42	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.62		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.6		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.16	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.83		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.88		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107703-7	3011-05-B01 (0-1)	Solid	02/17/16 11:25	02/18/16 07:30

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-2

Client Sample ID: 3011-05-B01 (0-1)

Lab Sample ID: 500-107703-7

Date Collected: 02/17/16 11:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0031	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Benzene	<0.0040		0.0040	0.00090	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Bromodichloromethane	<0.0040		0.0040	0.00068	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Bromoform	<0.0040		0.0040	0.00082	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
2-Butanone (MEK)	<0.0040		0.0040	0.0014	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Carbon disulfide	<0.0040		0.0040	0.0015	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Carbon tetrachloride	<0.0040		0.0040	0.00086	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Chlorobenzene	<0.0040		0.0040	0.00095	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Chloroethane	<0.0040		0.0040	0.0017	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Chloroform	<0.0040		0.0040	0.00079	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Chloromethane	<0.0040		0.0040	0.00097	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
cis-1,2-Dichloroethene	<0.0040		0.0040	0.00082	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
cis-1,3-Dichloropropene	<0.0040		0.0040	0.00092	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Dibromochloromethane	<0.0040		0.0040	0.00046	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
1,1-Dichloroethane	<0.0040		0.0040	0.00083	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
1,2-Dichloroethane	<0.0040		0.0040	0.00060	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
1,1-Dichloroethene	<0.0040		0.0040	0.0015	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
1,2-Dichloropropane	<0.0040		0.0040	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
1,3-Dichloropropane, Total	<0.0040		0.0040	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Ethylbenzene	<0.0040		0.0040	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
2-Hexanone	<0.0040		0.0040	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Methylene Chloride	<0.0040		0.0040	0.0031	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.00083	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Methyl tert-butyl ether	<0.0040		0.0040	0.00095	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Styrene	<0.0040		0.0040	0.00094	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
1,1,2,2-Tetrachloroethane	<0.0040		0.0040	0.00064	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Tetrachloroethene	<0.0040		0.0040	0.00084	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Toluene	<0.0040		0.0040	0.0014	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
trans-1,2-Dichloroethene	<0.0040		0.0040	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
trans-1,3-Dichloropropene	<0.0040		0.0040	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
1,1,1-Trichloroethane	<0.0040		0.0040	0.00094	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
1,1,2-Trichloroethane	<0.0040		0.0040	0.00078	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Trichloroethene	<0.0040		0.0040	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Vinyl acetate	<0.0040	*	0.0040	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Vinyl chloride	<0.0040		0.0040	0.00096	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Xylenes, Total	<0.0081		0.0081	0.0015	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 122	02/18/16 08:10	02/26/16 14:17	1
Dibromofluoromethane	95		75 - 120	02/18/16 08:10	02/26/16 14:17	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 134	02/18/16 08:10	02/26/16 14:17	1
Toluene-d8 (Surr)	108		75 - 122	02/18/16 08:10	02/26/16 14:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.086	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-2

Client Sample ID: 3011-05-B01 (0-1)

Lab Sample ID: 500-107703-7

Date Collected: 02/17/16 11:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Naphthalene	0.39		0.038	0.0059	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2-Methylnaphthalene	0.082		0.038	0.0071	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Acenaphthylene	0.066		0.038	0.0051	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Acenaphthene	0.098		0.038	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Dibenzofuran	0.21		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Fluorene	0.11		0.038	0.0054	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Phenanthrene	2.4		0.038	0.0054	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Anthracene	0.12		0.038	0.0064	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Carbazole	0.26		0.19	0.096	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Fluoranthene	1.9		0.038	0.0071	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Benzo[a]anthracene	0.49		0.038	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Chrysene	0.85		0.038	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-2

Client Sample ID: 3011-05-B01 (0-1)

Lab Sample ID: 500-107703-7

Date Collected: 02/17/16 11:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Benzo[b]fluoranthene	1.1		0.038	0.0083	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Benzo[k]fluoranthene	0.37		0.038	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Benzo[a]pyrene	0.58		0.038	0.0075	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Indeno[1,2,3-cd]pyrene	0.35		0.038	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Dibenz(a,h)anthracene	0.093		0.038	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Benzo[g,h,i]perylene	0.34		0.038	0.012	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	95		25 - 110	02/23/16 07:13	02/28/16 18:19	1
Phenol-d5	76		31 - 110	02/23/16 07:13	02/28/16 18:19	1
Nitrobenzene-d5	91		25 - 115	02/23/16 07:13	02/28/16 18:19	1
2-Fluorobiphenyl	83		25 - 119	02/23/16 07:13	02/28/16 18:19	1
2,4,6-Tribromophenol	107		35 - 137	02/23/16 07:13	02/28/16 18:19	1
Terphenyl-d14	192	X	36 - 134	02/23/16 07:13	02/28/16 18:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	2.4		0.077	0.015	mg/Kg	☼	02/23/16 07:13	03/01/16 00:13	2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.4		1.0	0.21	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Arsenic	3.6		0.50	0.23	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Barium	50		0.50	0.092	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Beryllium	0.24		0.20	0.043	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Boron	6.1		2.5	0.35	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Cadmium	0.16		0.10	0.029	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Calcium	91000	B	100	32	mg/Kg	☼	02/25/16 09:30	02/27/16 23:00	10
Chromium	9.0	B	0.50	0.086	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Cobalt	4.8		0.25	0.057	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Copper	12		0.50	0.11	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Iron	8000		10	3.9	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Lead	54		0.25	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Magnesium	42000		5.0	2.0	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Manganese	380	B	0.50	0.099	mg/Kg	☼	02/25/16 09:30	02/28/16 00:22	1
Nickel	9.8		0.50	0.14	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Potassium	690		25	4.1	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Selenium	0.29	J	0.50	0.25	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Silver	<0.25		0.25	0.059	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Sodium	2000		50	6.6	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Thallium	<0.50		0.50	0.25	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Vanadium	14		0.25	0.073	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Zinc	61		1.0	0.32	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-2

Client Sample ID: 3011-05-B01 (0-1)

Lab Sample ID: 500-107703-7

Date Collected: 02/17/16 11:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.42	J	0.50	0.050	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Boron	0.62		0.50	0.050	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Chromium	<0.025		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Cobalt	<0.025		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Iron	<0.40		0.40	0.20	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Manganese	1.6		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Nickel	<0.025		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Selenium	<0.050		0.050	0.020	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Silver	<0.025		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Zinc	0.16	J B	0.50	0.020	mg/L	-	02/23/16 16:01	02/26/16 23:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.83		0.025	0.010	mg/L	-	02/23/16 16:10	02/27/16 21:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	02/23/16 16:01	02/25/16 17:23	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	02/23/16 16:01	02/25/16 17:23	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	02/23/16 16:45	02/24/16 12:19	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.019		0.019	0.010	mg/Kg	☼	02/23/16 15:15	02/24/16 14:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.88		0.200	0.200	SU	-		02/23/16 11:41	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-2

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

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

Metals

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

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-2

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 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 #: 500-107703
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter														Preservative Key	
Project Name		Lab Project #		Parameter		Parameter														1. HCL, Cool to 4°	
Project Location/State		Lab Project #		Parameter		Parameter														2. H2SO4, Cool to 4°	
Sampler		Lab PM		Parameter		Parameter														3. HNO3, Cool to 4°	
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix															4. NaOH, Cool to 4°
7		3011-05-B01(01)	2/17/16	1125	2	S	X	X	X	X	X										5. NaOH/Zn, Cool to 4°
8		3011-05-B02(01)	2/17/16	1135	2	S	X	X	X	X	X										6. NaHSO4
2/17/16																					

- 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

Turnaround Time Required (Business Days) _____
 Requested Due Date _____
 Sample Disposal: 1 Day 2 Days 5 Days 7 Days 10 Days 15 Days Other _____
 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>[Signature]</u> Company: <u>EA</u> Date: <u>2/17/16</u> Time: <u>1515</u>	Received By: <u>[Signature]</u> Company: <u>EA</u> Date: <u>2/17/16</u> Time: <u>1575</u>
Relinquished By: <u>[Signature]</u> Company: <u>EA</u> Date: <u>2/17/16</u> Time: <u>1645</u>	Received By: <u>[Signature]</u> Company: <u>EA - CAPT</u> Date: <u>2/18/16</u> Time: <u>0730</u>

Lab Courier: [Signature]
 Shipped: _____
 Hand Delivered: _____

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

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107703-2

Login Number: 107703

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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: 500-107703-3
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 12:42:03 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

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Job ID: 500-107703-3

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107703-3

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: Due to internal standard (ISTD) area failures, a dilution was required for the following samples: 3011-06-B14 (0-1) (500-107703-9), 3011-06-B07 (0-1) (500-107703-12), 3011-06-B04 (0-1) (500-107703-18), 3011-06-B06 (0-1) (500-107703-19) and 3011-06-B12 (0-1) (500-107703-22). The samples were initially analyzed without dilution. All internal standards were outside the QC limits. The sample were re-analyzed with similar results. No usable data was obtained from the un-diluted runs. The samples were re-analyzed at a dilution using the methanol extraction method. All internal standard areas were within limits in the diluted run. Elevated reporting limits have been provided.

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with batches 324522 and 324843: Vinyl Acetate. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one base/neutral surrogate outside acceptance limits: 3011-06-B14 (0-1) (500-107703-9), 3011-06-B11 (0-1) (500-107703-10), 3011-06-B09 (0-1) (500-107703-11), 3011-06-B07 (0-1) (500-107703-12), 3011-06-B05 (0-1) (500-107703-13), 3011-06-B02 (0-1) (500-107703-14), 3011-06-B01 (0-1) (500-107703-15), 3011-06-B01 (0-1)D (500-107703-16), 3011-06-B03 (0-1) (500-107703-17), 3011-06-B04 (0-1) (500-107703-18), 3011-06-B06 (0-1) (500-107703-19), 3011-06-B08 (0-1) (500-107703-20), 3011-06-B10 (0-1) (500-107703-21), (500-107703-E-1-B MS), (500-107703-E-1-C MSD), (500-107703-E-21-B MS) and (500-107703-E-21-C MS). The laboratory's SOP allows one acid and/or one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-324037 and analytical batch 500-324749 had 1 analyte outside control limits: Bis(2-chloroethyl)ether; therefore, corrective action was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324371 and analytical batch 500-324528 contained Calcium, Iron, and Magnesium above the reporting limit (RL). Associated samples 3011-06-B10 (0-1) (500-107703-21), 3011-06-B12 (0-1) (500-107703-22) and 3011-06-B13 (0-1) (500-107703-23) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 7471B: The matrix spike (MS) recoveries for 500-107703-1 were outside control limits for Hg. The sample appears to have been double spiked. The MSD was within control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Job ID: 500-107703-3 (Continued)

Laboratory: TestAmerica Chicago (Continued)

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)

Lab Sample ID: 500-107703-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.012	J	0.037	0.0049	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.0069	J	0.037	0.0066	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0084	J	0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.17		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.028	J	0.037	0.0062	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.25		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.53		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.16		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.18		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.28		0.037	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.11		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.18		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.16		0.037	0.0096	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.20		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.6		0.47	0.22	mg/Kg	1	☼	6010B	Total/NA
Barium	61		0.47	0.087	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.35		0.19	0.041	mg/Kg	1	☼	6010B	Total/NA
Boron	5.2		2.4	0.33	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.082	J	0.095	0.027	mg/Kg	1	☼	6010B	Total/NA
Calcium	50000	B	95	31	mg/Kg	10	☼	6010B	Total/NA
Chromium	11	B	0.47	0.081	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.6		0.24	0.054	mg/Kg	1	☼	6010B	Total/NA
Copper	13		0.47	0.10	mg/Kg	1	☼	6010B	Total/NA
Iron	11000		9.5	3.7	mg/Kg	1	☼	6010B	Total/NA
Lead	36		0.24	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	22000		4.7	1.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	390	B	0.47	0.094	mg/Kg	1	☼	6010B	Total/NA
Nickel	15		0.47	0.13	mg/Kg	1	☼	6010B	Total/NA
Potassium	910		24	3.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.28	J	0.47	0.23	mg/Kg	1	☼	6010B	Total/NA
Sodium	1500		47	6.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	19		0.24	0.069	mg/Kg	1	☼	6010B	Total/NA
Zinc	59		0.95	0.30	mg/Kg	1	☼	6010B	Total/NA
Barium	0.49	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.58		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.1		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.090	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.99		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.017		0.016	0.0085	mg/Kg	1	☼	7471B	Total/NA
pH	8.55		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-06-B01 (0-1)D

Lab Sample ID: 500-107703-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.010	J	0.038	0.0058	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.018	J	0.038	0.0050	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.18		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.024	J	0.038	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.24		0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.53		0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)D (Continued)

Lab Sample ID: 500-107703-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.15		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.18		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.29		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.082		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.17		0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.17		0.038	0.0098	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.052		0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.20		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.9		0.50	0.23	mg/Kg	1	☼	6010B	Total/NA
Barium	74		0.50	0.091	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.35		0.20	0.043	mg/Kg	1	☼	6010B	Total/NA
Boron	7.1		2.5	0.35	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.13		0.10	0.029	mg/Kg	1	☼	6010B	Total/NA
Calcium	89000	B	100	32	mg/Kg	10	☼	6010B	Total/NA
Chromium	12	B	0.50	0.086	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.9		0.25	0.056	mg/Kg	1	☼	6010B	Total/NA
Copper	16		0.50	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	10000		10	3.8	mg/Kg	1	☼	6010B	Total/NA
Lead	44		0.25	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	32000		5.0	2.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	360	B	0.50	0.099	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.50	0.13	mg/Kg	1	☼	6010B	Total/NA
Potassium	810		25	4.1	mg/Kg	1	☼	6010B	Total/NA
Sodium	1300		50	6.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.25	0.073	mg/Kg	1	☼	6010B	Total/NA
Zinc	66		1.0	0.32	mg/Kg	1	☼	6010B	Total/NA
Barium	0.53		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.63		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.81		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.15	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.3		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.026		0.020	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.61		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107703-15	3011-06-B01 (0-1)	Solid	02/17/16 13:05	02/18/16 07:30
500-107703-16	3011-06-B01 (0-1)D	Solid	02/17/16 13:05	02/18/16 07:30

- 1
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- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)

Lab Sample ID: 500-107703-15

Date Collected: 02/17/16 13:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0038	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Benzene	<0.0050		0.0050	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Bromodichloromethane	<0.0050		0.0050	0.00084	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Bromoform	<0.0050		0.0050	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Bromomethane	<0.0050		0.0050	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
2-Butanone (MEK)	<0.0050		0.0050	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Carbon disulfide	<0.0050		0.0050	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Carbon tetrachloride	<0.0050		0.0050	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Chlorobenzene	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Chloroethane	<0.0050		0.0050	0.0021	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Chloroform	<0.0050		0.0050	0.00097	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Chloromethane	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
cis-1,2-Dichloroethene	<0.0050		0.0050	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
cis-1,3-Dichloropropene	<0.0050		0.0050	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Dibromochloromethane	<0.0050		0.0050	0.00057	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
1,1-Dichloroethane	<0.0050		0.0050	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
1,2-Dichloroethane	<0.0050		0.0050	0.00074	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
1,1-Dichloroethene	<0.0050		0.0050	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
1,2-Dichloropropane	<0.0050		0.0050	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
1,3-Dichloropropane, Total	<0.0050		0.0050	0.0014	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Ethylbenzene	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
2-Hexanone	<0.0050		0.0050	0.0015	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Methylene Chloride	<0.0050		0.0050	0.0038	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Methyl tert-butyl ether	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Styrene	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
1,1,2,2-Tetrachloroethane	<0.0050		0.0050	0.00079	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Tetrachloroethene	<0.0050		0.0050	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Toluene	<0.0050		0.0050	0.0017	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
trans-1,2-Dichloroethene	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
trans-1,3-Dichloropropene	<0.0050		0.0050	0.0014	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
1,1,1-Trichloroethane	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
1,1,2-Trichloroethane	<0.0050		0.0050	0.00096	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Trichloroethene	<0.0050		0.0050	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Vinyl acetate	<0.0050	*	0.0050	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Vinyl chloride	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Xylenes, Total	<0.0099		0.0099	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 122	02/18/16 08:10	02/26/16 17:41	1
Dibromofluoromethane	100		75 - 120	02/18/16 08:10	02/26/16 17:41	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 134	02/18/16 08:10	02/26/16 17:41	1
Toluene-d8 (Surr)	106		75 - 122	02/18/16 08:10	02/26/16 17:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.055	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)

Lab Sample ID: 500-107703-15

Date Collected: 02/17/16 13:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2-Methylnaphthalene	<0.037		0.037	0.0068	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Acenaphthylene	0.012	J	0.037	0.0049	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Acenaphthene	0.0069	J	0.037	0.0066	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Fluorene	0.0084	J	0.037	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Pentachlorophenol	<0.75		0.75	0.59	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Phenanthrene	0.17		0.037	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Anthracene	0.028	J	0.037	0.0062	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Carbazole	<0.19		0.19	0.092	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Fluoranthene	0.25		0.037	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Pyrene	0.53		0.037	0.0073	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Benzo[a]anthracene	0.16		0.037	0.0050	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)

Lab Sample ID: 500-107703-15

Date Collected: 02/17/16 13:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.18		0.037	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Benzo[b]fluoranthene	0.28		0.037	0.0080	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Benzo[k]fluoranthene	0.11		0.037	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Benzo[a]pyrene	0.18		0.037	0.0072	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Indeno[1,2,3-cd]pyrene	0.16		0.037	0.0096	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0071	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Benzo[g,h,i]perylene	0.20		0.037	0.012	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	91		25 - 110	02/23/16 07:13	02/28/16 22:09	1
Phenol-d5	98		31 - 110	02/23/16 07:13	02/28/16 22:09	1
Nitrobenzene-d5	92		25 - 115	02/23/16 07:13	02/28/16 22:09	1
2-Fluorobiphenyl	84		25 - 119	02/23/16 07:13	02/28/16 22:09	1
2,4,6-Tribromophenol	88		35 - 137	02/23/16 07:13	02/28/16 22:09	1
Terphenyl-d14	204	X	36 - 134	02/23/16 07:13	02/28/16 22:09	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.95		0.95	0.20	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Arsenic	5.6		0.47	0.22	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Barium	61		0.47	0.087	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Beryllium	0.35		0.19	0.041	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Boron	5.2		2.4	0.33	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Cadmium	0.082	J	0.095	0.027	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Calcium	50000	B	95	31	mg/Kg	☼	02/25/16 09:30	02/27/16 23:35	10
Chromium	11	B	0.47	0.081	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Cobalt	6.6		0.24	0.054	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Copper	13		0.47	0.10	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Iron	11000		9.5	3.7	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Lead	36		0.24	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Magnesium	22000		4.7	1.9	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Manganese	390	B	0.47	0.094	mg/Kg	☼	02/25/16 09:30	02/28/16 01:12	1
Nickel	15		0.47	0.13	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Potassium	910		24	3.9	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Selenium	0.28	J	0.47	0.23	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Silver	<0.24		0.24	0.055	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Sodium	1500		47	6.3	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Thallium	<0.47		0.47	0.23	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Vanadium	19		0.24	0.069	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Zinc	59		0.95	0.30	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.49	J	0.50	0.050	mg/L		02/23/16 16:01	02/27/16 00:19	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/27/16 00:19	1
Boron	0.58		0.50	0.050	mg/L		02/23/16 16:01	02/27/16 00:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)

Lab Sample ID: 500-107703-15

Date Collected: 02/17/16 13:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/27/16 00:19	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:19	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:19	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/27/16 00:19	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/23/16 16:01	02/27/16 00:19	1
Manganese	1.1		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:19	1
Nickel	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:19	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/27/16 00:19	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:19	1
Zinc	0.090	J B	0.50	0.020	mg/L		02/23/16 16:01	02/27/16 00:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.99		0.025	0.010	mg/L		02/23/16 16:10	02/27/16 22:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 18:03	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 18:03	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:34	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017		0.016	0.0085	mg/Kg	☼	02/23/16 15:15	02/24/16 14:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.55		0.200	0.200	SU			02/23/16 12:22	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)D

Lab Sample ID: 500-107703-16

Date Collected: 02/17/16 13:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0037	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Benzene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Bromodichloromethane	<0.0048		0.0048	0.00081	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Bromoform	<0.0048		0.0048	0.00097	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
2-Butanone (MEK)	<0.0048		0.0048	0.0017	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Carbon disulfide	<0.0048		0.0048	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Carbon tetrachloride	<0.0048		0.0048	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Chlorobenzene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Chloroethane	<0.0048		0.0048	0.0020	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Chloroform	<0.0048		0.0048	0.00093	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Chloromethane	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
cis-1,2-Dichloroethene	<0.0048		0.0048	0.00097	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
cis-1,3-Dichloropropene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Dibromochloromethane	<0.0048		0.0048	0.00055	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
1,1-Dichloroethane	<0.0048		0.0048	0.00098	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
1,2-Dichloroethane	<0.0048		0.0048	0.00071	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
1,1-Dichloroethene	<0.0048		0.0048	0.0017	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
1,2-Dichloropropane	<0.0048		0.0048	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
1,3-Dichloropropane, Total	<0.0048		0.0048	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Ethylbenzene	<0.0048		0.0048	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Methylene Chloride	<0.0048		0.0048	0.0036	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.00098	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Methyl tert-butyl ether	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Styrene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
1,1,1,2-Tetrachloroethane	<0.0048		0.0048	0.00076	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Tetrachloroethene	<0.0048		0.0048	0.00099	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Toluene	<0.0048		0.0048	0.0017	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
trans-1,2-Dichloroethene	<0.0048		0.0048	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
trans-1,3-Dichloropropene	<0.0048		0.0048	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
1,1,1-Trichloroethane	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
1,1,2-Trichloroethane	<0.0048		0.0048	0.00093	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Trichloroethene	<0.0048		0.0048	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Vinyl acetate	<0.0048 *		0.0048	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Vinyl chloride	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Xylenes, Total	<0.0096		0.0096	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 122	02/18/16 08:10	02/26/16 18:07	1
Dibromofluoromethane	95		75 - 120	02/18/16 08:10	02/26/16 18:07	1
1,2-Dichloroethane-d4 (Surr)	87		70 - 134	02/18/16 08:10	02/26/16 18:07	1
Toluene-d8 (Surr)	108		75 - 122	02/18/16 08:10	02/26/16 18:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Bis(2-chloroethyl)ether	<0.19 *		0.19	0.057	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)D

Lab Sample ID: 500-107703-16

Date Collected: 02/17/16 13:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Naphthalene	0.010	J	0.038	0.0058	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2,4,5-Trichlorophenol	<0.38		0.38	0.086	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2-Methylnaphthalene	<0.038		0.038	0.0070	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2-Nitrophenol	<0.38		0.38	0.089	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2,4-Dinitrophenol	<0.76		0.76	0.67	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Acenaphthylene	0.018	J	0.038	0.0050	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Phenanthrene	0.18		0.038	0.0053	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Anthracene	0.024	J	0.038	0.0063	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Fluoranthene	0.24		0.038	0.0070	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Pyrene	0.53		0.038	0.0075	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Benzo[a]anthracene	0.15		0.038	0.0051	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)D

Lab Sample ID: 500-107703-16

Date Collected: 02/17/16 13:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.18		0.038	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Benzo[b]fluoranthene	0.29		0.038	0.0082	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Benzo[k]fluoranthene	0.082		0.038	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Benzo[a]pyrene	0.17		0.038	0.0073	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Indeno[1,2,3-cd]pyrene	0.17		0.038	0.0098	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Dibenz(a,h)anthracene	0.052		0.038	0.0073	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Benzo[g,h,i]perylene	0.20		0.038	0.012	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	101		25 - 110	02/23/16 07:13	02/28/16 22:38	1
Phenol-d5	88		31 - 110	02/23/16 07:13	02/28/16 22:38	1
Nitrobenzene-d5	96		25 - 115	02/23/16 07:13	02/28/16 22:38	1
2-Fluorobiphenyl	90		25 - 119	02/23/16 07:13	02/28/16 22:38	1
2,4,6-Tribromophenol	97		35 - 137	02/23/16 07:13	02/28/16 22:38	1
Terphenyl-d14	220	X	36 - 134	02/23/16 07:13	02/28/16 22:38	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.21	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Arsenic	4.9		0.50	0.23	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Barium	74		0.50	0.091	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Beryllium	0.35		0.20	0.043	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Boron	7.1		2.5	0.35	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Cadmium	0.13		0.10	0.029	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Calcium	89000	B	100	32	mg/Kg	☼	02/25/16 09:30	02/27/16 23:39	10
Chromium	12	B	0.50	0.086	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Cobalt	5.9		0.25	0.056	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Copper	16		0.50	0.11	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Iron	10000		10	3.8	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Lead	44		0.25	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Magnesium	32000		5.0	2.0	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Manganese	360	B	0.50	0.099	mg/Kg	☼	02/25/16 09:30	02/28/16 01:17	1
Nickel	13		0.50	0.13	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Potassium	810		25	4.1	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Selenium	<0.50		0.50	0.25	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Silver	<0.25		0.25	0.058	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Sodium	1300		50	6.6	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Thallium	<0.50		0.50	0.25	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Vanadium	18		0.25	0.073	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Zinc	66		1.0	0.32	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.53		0.50	0.050	mg/L		02/23/16 16:01	02/27/16 00:25	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/27/16 00:25	1
Boron	0.63		0.50	0.050	mg/L		02/23/16 16:01	02/27/16 00:25	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)D

Lab Sample ID: 500-107703-16

Date Collected: 02/17/16 13:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/27/16 00:25	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:25	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:25	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/27/16 00:25	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/23/16 16:01	02/27/16 00:25	1
Manganese	0.81		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:25	1
Nickel	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:25	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/27/16 00:25	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:25	1
Zinc	0.15	J B	0.50	0.020	mg/L		02/23/16 16:01	02/27/16 00:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.3		0.025	0.010	mg/L		02/23/16 16:10	02/27/16 22:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 18:08	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 18:08	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:40	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.020	0.010	mg/Kg	☼	02/23/16 15:15	02/24/16 14:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.61		0.200	0.200	SU			02/23/16 12:27	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

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

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
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.

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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
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 #: 500-107703

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
E+E		1009341-0008-01									
Project Name		Lab Project #		# of Containers		Matrix		Matrix		Comments	
IL 38		50011804.0008.01									
Project Location/State		Lab PM		Date		Time		Matrix		Comments	
Kane County IL		D. Wright									
Sampler		Sample ID		Date		Time		Matrix		Comments	
S. Cooper											
9	MS/MSD	3011-06-B14 (01)	2/17/16	0945	2	S	X	X	X	X	
10		3011-06-B11 (01)	2/17/16	1000	2	S	X	X	X	X	
11		3011-06-B09 (01)	2/17/16	1005	2	S	X	X	X	X	
12		3011-06-B07 (01)	2/17/16	1015	2	S	X	X	X	X	
13		3011-06-B05 (01)	2/17/16	1025	2	S	X	X	X	X	
14		3011-06-B02 (01)	2/17/16	1040	2	S	X	X	X	X	
15		3011-06-B01 (01)	2/17/16	1305	2	S	X	X	X	X	
16		3011-06-B01 (01) D	2/17/16	1305	2	S	X	X	X	X	
17		3011-06-B03 (01)	2/17/16	1310	2	S	X	X	X	X	
18		3011-06-B04 (01)	2/17/16	1315	2	S	X	X	X	X	

- Preservative Key
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

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>[Signature]</u>	Company: <u>E+E</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>
Relinquished By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1645</u>	Received By: <u>[Signature]</u>	Company: <u>TA-CHI</u>	Date: <u>2/18/16</u>	Time: <u>0730</u>
Relinquished By: _____	Company: _____	Date: _____	Time: _____	Received By: _____	Company: _____	Date: _____	Time: _____

Lab Courier: [Signature]

Shipped: _____

Hand Delivered: _____

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

Client Comments:

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 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 #: 500-107703

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments		
EE		1009341-020801								Preservative Key 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		Lab Project #		# of Containers		Matrix		Matrix		Comments		
FL 38		50011864										
Project Location/State		Lab PM		Date		Time		Matrix		Comments		
Kane County, IL		P. Wright										
Sampler		Sample ID		Date		Time		Matrix		Comments		
S-Cooper												
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	VOC	SVOC	Total TAC	TEMP/STP	TAC Method	pH/°C Solids
19		3011-06-B06 (01)	2/17/16	1745	2	S	X	X	X	X	X	X
20		3011-06-B08 (01)	2/17/16	1750	2	S	X	X	X	X	X	X
21		3011-06-B10 (01)	2/17/16	1755	2	S	X	X	X	X	X	X
22		3011-06-B12 (01)	2/17/16	1800	2	S	X	X	X	X	X	X
23		3011-06-B13 (01)	2/17/16	1805	2	S	X	X	X	X	X	X

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>[Signature]</u> Company: <u>LC</u> Date: <u>2-17-16</u> Time: <u>1515</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/18/16</u> Time: <u>1515</u>	Lab Courier: <u>TA</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/17/16</u> Time: <u>1645</u>	Received By: <u>[Signature]</u> Company: <u>TA-CERT</u> Date: <u>2/18/16</u> Time: <u>0930</u>	Shipped: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: _____

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

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107703-3

Login Number: 107703

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 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: FAP 347 (IL Route 38) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
50W 379 IL 38 ISGS #3011-5 (Wiltse Family Farm)

City: Maple Park State: IL Zip Code: 60151

County: Kane Township: Virgil

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

Latitude: 41.895093 Longitude: -88.592711
(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: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: 60196-1096 Phone: 847-705-4159

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

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 an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 347 (IL Route 38)

Latitude: 41.895093 Longitude: -88.592711

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 appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations 3011-05-B01 was sampled within the construction zone adjacent to ISGS #3011-5 (Wiltse Family Farm). Refer to PSI Report for ISGS #3011-5 (Wiltse Family Farm) including Table 4-4, and Figures 4-1A&B.

- 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]:

See attached data summary table and associated laboratory data package J107703-2.

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

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

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

Company Name: Ecology and Environment, Inc.

Street Address: 33 West Monroe Street

City: Chicago State: IL Zip Code: 60603

Phone: 312-578-9243

Neil J. Brown

Printed Name:

Neil J. Brown

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

3/17/16

Date:



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

Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A

Key to Data Tables

MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed.

J = Estimated value.

U = Analyte was analyzed for but not detected.


Criteria Qualifiers and Shading

† = Concentration exceeds the most stringent MAC.


m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.

L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.

 = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.

 = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.

 = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-5 (Wiltse Family Farm)	Comparison Criteria			
		MACs			TACO
BORING	3011-05-B01				
SAMPLE	3011-05-B01 (0-1)				
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.88	Most Stringent	Within an MSA	Within Chicago	SCGIER
VOCs (mg/kg)					
Methyl tert-butyl ether	ND U	0.32	--	--	--
SVOCs (mg/kg)					
2-Methylnaphthalene	0.082	--	--	--	--
Acenaphthene	0.098	570	--	--	--
Acenaphthylene	0.066	--	--	--	--
Anthracene	0.12	12,000	--	--	--
Benzo[a]anthracene	0.49	0.9	1.8	1.1	--
Benzo[a]pyrene	0.58 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	1.1 †	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.34	--	--	--	--
Benzo[k]fluoranthene	0.37	9	--	--	--
Carbazole	0.26	0.6	--	--	--
Chrysene	0.85	88	--	--	--
Dibenzo(a,h)anthracene	0.093 †	0.09	0.42	0.2	--
Dibenzofuran	0.21	--	--	--	--
Fluoranthene	1.9	3,100	--	--	--
Fluorene	0.11	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.35	0.9	1.6	0.9	--
Naphthalene	0.39	1.8	--	--	--
Phenanthrene	2.4	--	--	--	--
Pyrene	2.4	2,300	--	--	--
Inorganics (mg/kg)					
Antimony	1.4	5	--	--	--
Arsenic	3.6	11.3	13	--	--
Barium	50	1,500	--	--	--
Beryllium	0.24	22	--	--	--
Boron	6.1	40	--	--	--
Cadmium	0.16	5.2	--	--	--
Calcium	91,000	--	--	--	--
Chromium	9	21	--	--	--
Cobalt	4.8	20	--	--	--
Copper	12	2,900	--	--	--
Iron	8,000	15,000	15,900	--	--
Lead	54	107	--	--	--
Magnesium	42,000	325,000	--	--	--
Manganese	380	630	636	--	--
Mercury	ND U	0.89	--	--	--
Nickel	9.8	100	--	--	--
Potassium	690	--	--	--	--
Selenium	0.29 J	1.3	--	--	--
Sodium	2,000	--	--	--	--
Vanadium	14	550	--	--	--
Zinc	61	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.42 J	--	--	--	2
Boron	0.62	--	--	--	2
Manganese	1.6 L	--	--	--	0.15
Nickel	ND U	--	--	--	0.1
Zinc	0.16 J	--	--	--	5
SPLP Metals (mg/L)					
Manganese	0.83 L	--	--	--	0.15

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: 500-107703-2
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 12:41:29 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

Review your project
results through
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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.

1

2

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Table of Contents

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Detection Summary	4
Sample Summary	6
Client Sample Results	7
Definitions	15
Certification Summary	16
Chain of Custody	17
Receipt Checklists	18

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-2

Job ID: 500-107703-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107703-2

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: Due to internal standard (ISTD) area failures, a dilution was required for the following samples: 3011-05-B02 (0-1) (500-107703-8). The samples were initially analyzed without dilution. All internal standards were outside the QC limits. The sample were re-analyzed with similar results. No usable data was obtained from the un-diluted runs. The samples were re-analyzed at a dilution using the methanol extraction method. All internal standard areas were within limits in the diluted run. Elevated reporting limits have been provided.

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with batches 324522 and 324843: Vinyl Acetate. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one base/neutral surrogate outside acceptance limits: 3011-05-B01 (0-1) (500-107703-7), 3011-05-B02 (0-1) (500-107703-8), (500-107703-E-1-B MS) and (500-107703-E-1-C MSD). The laboratory's SOP allows one acid and/or one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-324037 and analytical batch 500-324749 had 1 analyte outside control limits: Bis(2-chloroethyl)ether; therefore, corrective action was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-2

Client Sample ID: 3011-05-B01 (0-1)

Lab Sample ID: 500-107703-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.39		0.038	0.0059	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.082		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.066		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.098		0.038	0.0069	mg/Kg	1	☼	8270D	Total/NA
Dibenzofuran	0.21		0.19	0.045	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.11		0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	2.4		0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.12		0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Carbazole	0.26		0.19	0.096	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	1.9		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.49		0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.85		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1.1		0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.37		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.58		0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.35		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.093		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.34		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Pyrene - DL	2.4		0.077	0.015	mg/Kg	2	☼	8270D	Total/NA
Antimony	1.4		1.0	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	3.6		0.50	0.23	mg/Kg	1	☼	6010B	Total/NA
Barium	50		0.50	0.092	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.24		0.20	0.043	mg/Kg	1	☼	6010B	Total/NA
Boron	6.1		2.5	0.35	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16		0.10	0.029	mg/Kg	1	☼	6010B	Total/NA
Calcium	91000	B	100	32	mg/Kg	10	☼	6010B	Total/NA
Chromium	9.0	B	0.50	0.086	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.8		0.25	0.057	mg/Kg	1	☼	6010B	Total/NA
Copper	12		0.50	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	8000		10	3.9	mg/Kg	1	☼	6010B	Total/NA
Lead	54		0.25	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	42000		5.0	2.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	380	B	0.50	0.099	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.8		0.50	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	690		25	4.1	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.29	J	0.50	0.25	mg/Kg	1	☼	6010B	Total/NA
Sodium	2000		50	6.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.25	0.073	mg/Kg	1	☼	6010B	Total/NA
Zinc	61		1.0	0.32	mg/Kg	1	☼	6010B	Total/NA
Barium	0.42	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.62		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.6		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.16	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.83		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.88		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107703-7	3011-05-B01 (0-1)	Solid	02/17/16 11:25	02/18/16 07:30

1

2

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-2

Client Sample ID: 3011-05-B01 (0-1)

Lab Sample ID: 500-107703-7

Date Collected: 02/17/16 11:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0031	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Benzene	<0.0040		0.0040	0.00090	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Bromodichloromethane	<0.0040		0.0040	0.00068	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Bromoform	<0.0040		0.0040	0.00082	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
2-Butanone (MEK)	<0.0040		0.0040	0.0014	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Carbon disulfide	<0.0040		0.0040	0.0015	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Carbon tetrachloride	<0.0040		0.0040	0.00086	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Chlorobenzene	<0.0040		0.0040	0.00095	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Chloroethane	<0.0040		0.0040	0.0017	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Chloroform	<0.0040		0.0040	0.00079	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Chloromethane	<0.0040		0.0040	0.00097	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
cis-1,2-Dichloroethene	<0.0040		0.0040	0.00082	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
cis-1,3-Dichloropropene	<0.0040		0.0040	0.00092	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Dibromochloromethane	<0.0040		0.0040	0.00046	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
1,1-Dichloroethane	<0.0040		0.0040	0.00083	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
1,2-Dichloroethane	<0.0040		0.0040	0.00060	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
1,1-Dichloroethene	<0.0040		0.0040	0.0015	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
1,2-Dichloropropane	<0.0040		0.0040	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
1,3-Dichloropropane, Total	<0.0040		0.0040	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Ethylbenzene	<0.0040		0.0040	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
2-Hexanone	<0.0040		0.0040	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Methylene Chloride	<0.0040		0.0040	0.0031	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.00083	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Methyl tert-butyl ether	<0.0040		0.0040	0.00095	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Styrene	<0.0040		0.0040	0.00094	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
1,1,2,2-Tetrachloroethane	<0.0040		0.0040	0.00064	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Tetrachloroethene	<0.0040		0.0040	0.00084	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Toluene	<0.0040		0.0040	0.0014	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
trans-1,2-Dichloroethene	<0.0040		0.0040	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
trans-1,3-Dichloropropene	<0.0040		0.0040	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
1,1,1-Trichloroethane	<0.0040		0.0040	0.00094	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
1,1,2-Trichloroethane	<0.0040		0.0040	0.00078	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Trichloroethene	<0.0040		0.0040	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Vinyl acetate	<0.0040	*	0.0040	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Vinyl chloride	<0.0040		0.0040	0.00096	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1
Xylenes, Total	<0.0081		0.0081	0.0015	mg/Kg	☼	02/18/16 08:10	02/26/16 14:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 122	02/18/16 08:10	02/26/16 14:17	1
Dibromofluoromethane	95		75 - 120	02/18/16 08:10	02/26/16 14:17	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 134	02/18/16 08:10	02/26/16 14:17	1
Toluene-d8 (Surr)	108		75 - 122	02/18/16 08:10	02/26/16 14:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.086	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-2

Client Sample ID: 3011-05-B01 (0-1)

Lab Sample ID: 500-107703-7

Date Collected: 02/17/16 11:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Naphthalene	0.39		0.038	0.0059	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2-Methylnaphthalene	0.082		0.038	0.0071	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Acenaphthylene	0.066		0.038	0.0051	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Acenaphthene	0.098		0.038	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Dibenzofuran	0.21		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Fluorene	0.11		0.038	0.0054	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Phenanthrene	2.4		0.038	0.0054	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Anthracene	0.12		0.038	0.0064	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Carbazole	0.26		0.19	0.096	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Fluoranthene	1.9		0.038	0.0071	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Benzo[a]anthracene	0.49		0.038	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Chrysene	0.85		0.038	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-2

Client Sample ID: 3011-05-B01 (0-1)

Lab Sample ID: 500-107703-7

Date Collected: 02/17/16 11:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Benzo[b]fluoranthene	1.1		0.038	0.0083	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Benzo[k]fluoranthene	0.37		0.038	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Benzo[a]pyrene	0.58		0.038	0.0075	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Indeno[1,2,3-cd]pyrene	0.35		0.038	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Dibenz(a,h)anthracene	0.093		0.038	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
Benzo[g,h,i]perylene	0.34		0.038	0.012	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:13	02/28/16 18:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	95		25 - 110	02/23/16 07:13	02/28/16 18:19	1
Phenol-d5	76		31 - 110	02/23/16 07:13	02/28/16 18:19	1
Nitrobenzene-d5	91		25 - 115	02/23/16 07:13	02/28/16 18:19	1
2-Fluorobiphenyl	83		25 - 119	02/23/16 07:13	02/28/16 18:19	1
2,4,6-Tribromophenol	107		35 - 137	02/23/16 07:13	02/28/16 18:19	1
Terphenyl-d14	192	X	36 - 134	02/23/16 07:13	02/28/16 18:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	2.4		0.077	0.015	mg/Kg	☼	02/23/16 07:13	03/01/16 00:13	2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.4		1.0	0.21	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Arsenic	3.6		0.50	0.23	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Barium	50		0.50	0.092	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Beryllium	0.24		0.20	0.043	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Boron	6.1		2.5	0.35	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Cadmium	0.16		0.10	0.029	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Calcium	91000	B	100	32	mg/Kg	☼	02/25/16 09:30	02/27/16 23:00	10
Chromium	9.0	B	0.50	0.086	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Cobalt	4.8		0.25	0.057	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Copper	12		0.50	0.11	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Iron	8000		10	3.9	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Lead	54		0.25	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Magnesium	42000		5.0	2.0	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Manganese	380	B	0.50	0.099	mg/Kg	☼	02/25/16 09:30	02/28/16 00:22	1
Nickel	9.8		0.50	0.14	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Potassium	690		25	4.1	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Selenium	0.29	J	0.50	0.25	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Silver	<0.25		0.25	0.059	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Sodium	2000		50	6.6	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Thallium	<0.50		0.50	0.25	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Vanadium	14		0.25	0.073	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1
Zinc	61		1.0	0.32	mg/Kg	☼	02/25/16 09:30	02/26/16 16:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-2

Client Sample ID: 3011-05-B01 (0-1)

Lab Sample ID: 500-107703-7

Date Collected: 02/17/16 11:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.42	J	0.50	0.050	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Boron	0.62		0.50	0.050	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Chromium	<0.025		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Cobalt	<0.025		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Iron	<0.40		0.40	0.20	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Manganese	1.6		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Nickel	<0.025		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Selenium	<0.050		0.050	0.020	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Silver	<0.025		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:09	1
Zinc	0.16	J B	0.50	0.020	mg/L	-	02/23/16 16:01	02/26/16 23:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.83		0.025	0.010	mg/L	-	02/23/16 16:10	02/27/16 21:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	02/23/16 16:01	02/25/16 17:23	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	02/23/16 16:01	02/25/16 17:23	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	02/23/16 16:45	02/24/16 12:19	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.019		0.019	0.010	mg/Kg	☼	02/23/16 15:15	02/24/16 14:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.88		0.200	0.200	SU	-		02/23/16 11:41	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-2

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

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

Metals

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

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-2

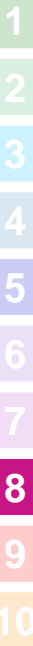
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 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 #: 500-107703
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix					
EE		100 934.0008.01									
Project Name R 38		Lab Project # 50011864									
Project Location/State Kane County, IL		Lab PM P. Wright									
Sampler S. Gupta											
7		3011-05-B01(01)	2/11/16	1125	2	S	X	X	X	X	
8		3011-05-B02(01)	2/17/16	1135	2	S	X	X	X	X	
2/17/16											

- Preservative Key
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

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 <i>[Signature]</i>	Company EE	Date 2/17/16	Time 1515	Received By <i>[Signature]</i>	Company TA	Date 2/17/16	Time 1575
Relinquished By <i>[Signature]</i>	Company TA	Date 2/17/16	Time 1645	Received By <i>[Signature]</i>	Company TA-CAPT	Date 2/18/16	Time 0730
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: *[Signature]*
 Shipped: _____
 Hand Delivered: _____

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

Client Comments: _____
 Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107703-2

Login Number: 107703

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 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: FAP 347 (IL Route 38) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
49W 580 to 50W 066 blocks of IL 38 ISGS #3011-6 (Agricultural Land)

City: Maple Park State: IL Zip Code: 60151

County: Kane Township: Virgil and Kaneville

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

Latitude: 41.894263 Longitude: -88.582791
(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: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: 60196-1096 Phone: 847-705-4159

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

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 an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 347 (IL Route 38)

Latitude: 41.894263 Longitude: -88.582791

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 appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations (See Attachment A) were sampled within the construction zone adjacent to ISGS #3011-6 (Agricultural Land). Refer to PSI Report for ISGS #3011-6 (Agricultural Land) including Table 4-4, and Figures 4-1A&B and 4-2A&B.

- 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]:

See attached data summary table and associated laboratory data package J107703-3, J107703-1, J107704-1, and J107704-2.

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

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

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

Company Name: Ecology and Environment, Inc.

Street Address: 33 West Monroe Street

City: Chicago State: IL Zip Code: 60603

Phone: 312-578-9243

Neil J. Brown

Printed Name:

Neil J. Brown
 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

3/17/16
 Date:



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

Attachment A

ISGS# 3011-06 (Agricultural Land)

Analytical results from sample points collected at adjacent properties ISGS# 3011-03, ISGS# 3011-07, and ISGS# 3011-08 were used to delineate areas of impact.

III (a)

Soil sample points:

- 3011-06-B01
- 3011-06-B02
- 3011-06-B03
- 3011-06-B05
- 3011-06-B06
- 3011-06-B07
- 3011-06-B08
- 3011-06-B09
- 3011-06-B10
- 3011-06-B11
- 3011-06-B12
- 3011-06-B13
- 3011-06-B14
- 3011-03-B06
- 3011-07-B01
- 3011-08-B01

III (b)

Lab packages with associated sample locations

- J107703-3**
- 3011-06-B01
- 3011-06-B02
- 3011-06-B03
- 3011-06-B05
- 3011-06-B06
- 3011-06-B07
- 3011-06-B08
- 3011-06-B09
- 3011-06-B10
- 3011-06-B11
- 3011-06-B12
- 3011-06-B13
- 3011-06-B14

- J107703-1**
- 3011-03-B06

- J107704-1**
- 3011-07-B01

- J107704-2**
- 3011-08-B01




Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A

Key to Data Tables

- MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

Criteria Qualifiers and Shading

- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-6 (Agricultural Land)			Comparison Criteria			
	3011-06-B01		3011-06-B02	MACs			TACO
BORING	3011-06-B01		3011-06-B02	Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE	3011-06-B01 (0-1)	3011-06-B01 (0-1)D	3011-06-B02 (0-1)				
MATRIX	Soil	Soil	Soil				
DEPTH (feet)	0-1	0-1	0-1				
pH	8.55	8.61	8.68				
VOCs (mg/kg)							
Acetone	ND U	ND U	ND U	25	--	--	--
Methyl tert-butyl ether	ND U	ND U	ND U	0.32	--	--	--
SVOCs (mg/kg)							
2-Methylnaphthalene	ND U	ND U	ND U	--	--	--	--
Acenaphthene	0.0069 J	ND U	ND U	570	--	--	--
Acenaphthylene	0.012 J	0.018 J	0.0072 J	--	--	--	--
Anthracene	0.028 J	0.024 J	0.015 J	12,000	--	--	--
Benzo[a]anthracene	0.16	0.15	0.066	0.9	1.8	1.1	--
Benzo[a]pyrene	0.18 †	0.17 †	0.094 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.28	0.29	0.13	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.2	0.2	0.12	--	--	--	--
Benzo[k]fluoranthene	0.11	0.082	0.053	9	--	--	--
Bis(2-ethylhexyl) phthalate	ND U	ND U	ND U	46	--	--	--
Chrysene	0.18	0.18	0.094	88	--	--	--
Dibenzo(a,h)anthracene	ND U	0.052	ND U	0.09	0.42	0.2	--
Fluoranthene	0.25	0.24	0.11	3,100	--	--	--
Fluorene	0.0084 J	ND U	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.16	0.17	0.088	0.9	1.6	0.9	--
Naphthalene	ND U	0.01 J	ND U	1.8	--	--	--
Phenanthrene	0.17	0.18	0.092	--	--	--	--
Pyrene	0.53	0.53	0.25	2,300	--	--	--
Inorganics (mg/kg)							
Arsenic	5.6	4.9	2.9	11.3	13	--	--
Barium	61	74	33	1,500	--	--	--
Beryllium	0.35	0.35	0.22	22	--	--	--
Boron	5.2	7.1	5.7	40	--	--	--
Cadmium	0.082 J	0.13	0.12	5.2	--	--	--
Calcium	50,000	89,000	110,000	--	--	--	--
Chromium	11	12	15	21	--	--	--
Cobalt	6.6	5.9	3.9	20	--	--	--
Copper	13	16	11	2,900	--	--	--
Iron	11,000	10,000	7,800	15,000	15,900	--	--
Lead	36	44	89	107	--	--	--
Magnesium	22,000	32,000	45,000	325,000	--	--	--
Manganese	390	360	270	630	636	--	--
Mercury	0.017	0.026	0.016 J	0.89	--	--	--
Nickel	15	13	9.7	100	--	--	--
Potassium	910	810	640	--	--	--	--
Selenium	0.28 J	ND U	ND U	1.3	--	--	--
Silver	ND U	ND U	ND U	4.4	--	--	--
Sodium	1,500	1,300	1,000	--	--	--	--
Vanadium	19	18	12	550	--	--	--
Zinc	59	66	39	5,100	--	--	--
TCLP Metals (mg/L)							
Barium	0.49 J	0.53	0.45 J	--	--	--	2
Boron	0.58	0.63	0.74	--	--	--	2
Cobalt	ND U	ND U	ND U	--	--	--	1
Lead	ND U	ND U	ND U	--	--	--	0.0075
Manganese	1.1 L	0.81 L	0.71 L	--	--	--	0.15
Nickel	ND U	ND U	ND U	--	--	--	0.1
Zinc	ND U	0.15 J	0.34 J	--	--	--	5
SPLP Metals (mg/L)							
Lead	NA	NA	NA	--	--	--	0.0075
Manganese	0.99 L	1.3 L	0.63 L	--	--	--	0.15

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A
CONTAMINANTS OF CONCERN

SITE	ISGS #3011-6 (Agricultural Land)		Comparison Criteria			
	3011-06-B03	3011-06-B05	MACs			TACO
BORING						
SAMPLE	3011-06-B03 (0-1)	3011-06-B05 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil				
DEPTH (feet)	0-1	0-1				
pH	8.35	8.61				
VOCs (mg/kg)						
Acetone	ND U	ND U	25	--	--	--
Methyl tert-butyl ether	ND U	ND U	0.32	--	--	--
SVOCs (mg/kg)						
2-Methylnaphthalene	ND U	ND U	--	--	--	--
Acenaphthene	ND U	ND U	570	--	--	--
Acenaphthylene	ND U	0.0072 J	--	--	--	--
Anthracene	0.015 J	0.015 J	12,000	--	--	--
Benzo[a]anthracene	0.065	0.074	0.9	1.8	1.1	--
Benzo[a]pyrene	0.08	0.094 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.11	0.17	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.099	0.12	--	--	--	--
Benzo[k]fluoranthene	0.061	0.058	9	--	--	--
Bis(2-ethylhexyl) phthalate	0.19	ND U	46	--	--	--
Chrysene	0.087	0.11	88	--	--	--
Dibenzo(a,h)anthracene	ND U	ND U	0.09	0.42	0.2	--
Fluoranthene	0.12	0.13	3,100	--	--	--
Fluorene	ND U	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.081	0.1	0.9	1.6	0.9	--
Naphthalene	ND U	ND U	1.8	--	--	--
Phenanthrene	0.11	0.095	--	--	--	--
Pyrene	0.25	0.28	2,300	--	--	--
Inorganics (mg/kg)						
Arsenic	2.2	3	11.3	13	--	--
Barium	25	20	1,500	--	--	--
Beryllium	0.12 J	0.16 J	22	--	--	--
Boron	8.1	9.3	40	--	--	--
Cadmium	0.15	0.085 J	5.2	--	--	--
Calcium	170,000	150,000	--	--	--	--
Chromium	6.8	13	21	--	--	--
Cobalt	2.7	2.8	20	--	--	--
Copper	11	9.5	2,900	--	--	--
Iron	5,300	7,200	15,000	15,900	--	--
Lead	33	65	107	--	--	--
Magnesium	110,000	89,000	325,000	--	--	--
Manganese	300	250	630	636	--	--
Mercury	ND U	0.033	0.89	--	--	--
Nickel	6.4	7.2	100	--	--	--
Potassium	530	610	--	--	--	--
Selenium	0.32 J	ND U	1.3	--	--	--
Silver	1.4	0.097 J	4.4	--	--	--
Sodium	710	1,100	--	--	--	--
Vanadium	8.4	9.4	550	--	--	--
Zinc	34	41	5,100	--	--	--
TCLP Metals (mg/L)						
Barium	0.33 J	0.26 J	--	--	--	2
Boron	0.61	0.88	--	--	--	2
Cobalt	ND U	ND U	--	--	--	1
Lead	ND U	0.0077 L	--	--	--	0.0075
Manganese	1.2 L	1.2 L	--	--	--	0.15
Nickel	ND U	ND U	--	--	--	0.1
Zinc	0.19 J	0.18 J	--	--	--	5
SPLP Metals (mg/L)						
Lead	NA	0.14 L	--	--	--	0.0075
Manganese	0.077	0.31 L	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-6 (Agricultural Land)			Comparison Criteria			
	3011-06-B06	3011-06-B07	3011-06-B08	MACs			TACO
SAMPLE	3011-06-B06 (0-1)	3011-06-B07 (0-1)	3011-06-B08 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil	Soil				
DEPTH (feet)	0-1	0-1	0-1				
pH	8.75	8.34	8.69				
VOCs (mg/kg)							
Acetone	0.26	ND U	ND U	25	--	--	--
Methyl tert-butyl ether	0.073	0.04 J	ND U	0.32	--	--	--
SVOCs (mg/kg)							
2-Methylnaphthalene	ND U	ND U	ND U	--	--	--	--
Acenaphthene	ND U	ND U	ND U	570	--	--	--
Acenaphthylene	ND U	ND U	ND U	--	--	--	--
Anthracene	0.0097 J	0.016 J	0.012 J	12,000	--	--	--
Benzo[a]anthracene	0.05	0.066	0.06	0.9	1.8	1.1	--
Benzo[a]pyrene	0.059	0.082	0.076	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.08	0.13	0.12	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.084	0.093	0.11	--	--	--	--
Benzo[k]fluoranthene	0.036	0.053	0.12	9	--	--	--
Bis(2-ethylhexyl) phthalate	ND U	ND U	ND U	46	--	--	--
Chrysene	0.065	0.082	0.082	88	--	--	--
Dibenzo(a,h)anthracene	ND U	ND U	ND U	0.09	0.42	0.2	--
Fluoranthene	0.061	0.12	0.078	3,100	--	--	--
Fluorene	ND U	ND U	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.061	0.078	ND U	0.9	1.6	0.9	--
Naphthalene	ND U	ND U	ND U	1.8	--	--	--
Phenanthrene	0.052	0.083	0.059	--	--	--	--
Pyrene	0.15	0.24	0.19	2,300	--	--	--
Inorganics (mg/kg)							
Arsenic	3.2	1.3	4.7	11.3	13	--	--
Barium	35	12	45	1,500	--	--	--
Beryllium	0.27	0.069 J	0.33	22	--	--	--
Boron	5.3	9.9	7.6	40	--	--	--
Cadmium	0.068 J	0.025 J	0.24	5.2	--	--	--
Calcium	70,000	190,000	96,000	--	--	--	--
Chromium	9.1	7.1	14	21	--	--	--
Cobalt	3.9	1.7	5.7	20	--	--	--
Copper	8.9	7	16	2,900	--	--	--
Iron	7,400	3,800	9,900	15,000	15,900	--	--
Lead	31	22	140 †	107	--	--	--
Magnesium	30,000	120,000	40,000	325,000	--	--	--
Manganese	240	190	370	630	636	--	--
Mercury	0.019	ND U	0.017 J	0.89	--	--	--
Nickel	9.9	4.6	12	100	--	--	--
Potassium	670	530	870	--	--	--	--
Selenium	ND U	0.25 J	ND U	1.3	--	--	--
Silver	ND U	ND U	ND U	4.4	--	--	--
Sodium	1,300	550	1,700	--	--	--	--
Vanadium	13	6.1	18	550	--	--	--
Zinc	39	17	67	5,100	--	--	--
TCLP Metals (mg/L)							
Barium	0.39 J	0.23 J	0.23 J	--	--	--	2
Boron	0.075 J	0.55	0.06 J	--	--	--	2
Cobalt	ND U	ND U	ND U	--	--	--	1
Lead	ND U	ND U	ND U	--	--	--	0.0075
Manganese	0.78 L	1.4 L	0.51 L	--	--	--	0.15
Nickel	ND U	0.015 J	ND U	--	--	--	0.1
Zinc	0.24 J	0.11 J	0.16 J	--	--	--	5
SPLP Metals (mg/L)							
Lead	NA	NA	NA	--	--	--	0.0075
Manganese	1.6 L	ND U	0.51 L	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-6 (Agricultural Land)			Comparison Criteria			
	3011-06-B09	3011-06-B10	3011-06-B11	MACs			TACO
SAMPLE	3011-06-B09 (0-1)	3011-06-B10 (0-1)	3011-06-B11 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil	Soil				
DEPTH (feet)	0-1	0-1	0-1				
pH	8.3	8.52	8.3				
VOCs (mg/kg)							
Acetone	ND U	ND U	ND U	25	--	--	--
Methyl tert-butyl ether	ND U	ND U	ND U	0.32	--	--	--
SVOCs (mg/kg)							
2-Methylnaphthalene	ND U	0.012 J	ND U	--	--	--	--
Acenaphthene	ND U	ND U	0.037 J	570	--	--	--
Acenaphthylene	ND U	0.0057 J	0.018 J	--	--	--	--
Anthracene	0.03 J	0.017 J	0.086	12,000	--	--	--
Benzo[a]anthracene	0.14	0.073	0.2	0.9	1.8	1.1	--
Benzo[a]pyrene	0.19 †	0.086	0.2 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.29	0.13	0.29	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.2	0.046	0.13	--	--	--	--
Benzo[k]fluoranthene	0.13	0.07	0.12	9	--	--	--
Bis(2-ethylhexyl) phthalate	0.092 J	ND U	ND U	46	--	--	--
Chrysene	0.19	0.091	0.2	88	--	--	--
Dibenzo(a,h)anthracene	0.047	ND U	ND U	0.09	0.42	0.2	--
Fluoranthene	0.22	0.17 J	0.4	3,100	--	--	--
Fluorene	ND U	0.0054 J	0.04	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.18	0.049	0.13	0.9	1.6	0.9	--
Naphthalene	ND U	0.0067 J	ND U	1.8	--	--	--
Phenanthrene	0.13	0.089	0.41	--	--	--	--
Pyrene	0.5	0.17 J	0.73	2,300	--	--	--
Inorganics (mg/kg)							
Arsenic	2.9	4.1 J	5.3	11.3	13	--	--
Barium	41	32	49	1,500	--	--	--
Beryllium	0.59	0.27	0.33	22	--	--	--
Boron	11	8.2 J	5.3	40	--	--	--
Cadmium	0.084 J	0.18	0.056 J	5.2	--	--	--
Calcium	230,000	130,000 J	100,000	--	--	--	--
Chromium	12	9.9 J	13	21	--	--	--
Cobalt	2.8	3.9	6.1	20	--	--	--
Copper	8.7	12	12	2,900	--	--	--
Iron	6,000	8,300	10,000	15,000	15,900	--	--
Lead	14	91 J	54	107	--	--	--
Magnesium	84,000	75,000 J	36,000	325,000	--	--	--
Manganese	370	270	360	630	636	--	--
Mercury	0.014 J	0.019 J	0.027	0.89	--	--	--
Nickel	8.9	10	22	100	--	--	--
Potassium	420	720 J	740	--	--	--	--
Selenium	ND U	ND U	ND U	1.3	--	--	--
Silver	ND U	ND U	ND U	4.4	--	--	--
Sodium	560	1,300 J	1,400	--	--	--	--
Vanadium	14	13	17	550	--	--	--
Zinc	39	52	53	5,100	--	--	--
TCLP Metals (mg/L)							
Barium	0.39 J	0.36 J	0.54	--	--	--	2
Boron	0.72	0.58	0.7	--	--	--	2
Cobalt	ND U	ND U	ND U	--	--	--	1
Lead	ND U	ND U	ND U	--	--	--	0.0075
Manganese	0.8 L	1.1 L	1 L	--	--	--	0.15
Nickel	ND U	0.012 J	ND U	--	--	--	0.1
Zinc	0.6	0.068 J	0.13 J	--	--	--	5
SPLP Metals (mg/L)							
Lead	NA	NA	NA	--	--	--	0.0075
Manganese	0.15	0.28 L	1.4 L	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-6 (Agricultural Land)			Comparison Criteria			
	3011-06-B12	3011-06-B13	3011-06-B14	MACs			TACO
SAMPLE	3011-06-B12 (0-1)	3011-06-B13 (0-1)	3011-06-B14 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil	Soil				
DEPTH (feet)	0-1	0-1	0-1				
pH	8.84	8.35	8.98				
VOCs (mg/kg)							
Acetone	ND U	ND U	ND U	25	--	--	--
Methyl tert-butyl ether	0.1	ND U	0.057 J	0.32	--	--	--
SVOCs (mg/kg)							
2-Methylnaphthalene	ND U	ND U	ND U	--	--	--	--
Acenaphthene	ND U	ND U	ND U	570	--	--	--
Acenaphthylene	ND U	ND U	ND U	--	--	--	--
Anthracene	0.017 J	0.013 J	0.019 J	12,000	--	--	--
Benzo[a]anthracene	0.052	0.041	0.074	0.9	1.8	1.1	--
Benzo[a]pyrene	0.063	0.052	0.087	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.1	0.087	0.17	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.026 J	0.026 J	0.1	--	--	--	--
Benzo[k]fluoranthene	0.046	0.044	0.049	9	--	--	--
Bis(2-ethylhexyl) phthalate	ND U	ND U	ND U	46	--	--	--
Chrysene	0.064	0.058	0.097	88	--	--	--
Dibenzo(a,h)anthracene	ND U	ND U	ND U	0.09	0.42	0.2	--
Fluoranthene	0.12	0.089	0.13	3,100	--	--	--
Fluorene	ND U	0.0055 J	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.026 J	0.026 J	0.069	0.9	1.6	0.9	--
Naphthalene	ND U	ND U	ND U	1.8	--	--	--
Phenanthrene	0.065	0.059	0.085	--	--	--	--
Pyrene	0.13	0.11	0.26	2,300	--	--	--
Inorganics (mg/kg)							
Arsenic	2.7	4.9	2.9	11.3	13	--	--
Barium	21	26	25	1,500	--	--	--
Beryllium	0.13 J	0.15 J	0.19 J	22	--	--	--
Boron	7.3	8.7	9	40	--	--	--
Cadmium	0.08 J	0.052 J	0.14	5.2	--	--	--
Calcium	170,000	170,000	190,000	--	--	--	--
Chromium	9.2	6.3	14	21	--	--	--
Cobalt	2.4	2.7	3.1	20	--	--	--
Copper	8.4	9.9	10	2,900	--	--	--
Iron	5,600	5,400	6,600	15,000	15,900	--	--
Lead	38	24	100	107	--	--	--
Magnesium	100,000	98,000	110,000	325,000	--	--	--
Manganese	220	290	290	630	636	--	--
Mercury	ND U	0.012 J	0.015 J	0.89	--	--	--
Nickel	6.4	6.3	7.9	100	--	--	--
Potassium	480	500	600	--	--	--	--
Selenium	ND U	ND U	ND U	1.3	--	--	--
Silver	0.11 J	ND U	ND U	4.4	--	--	--
Sodium	930	830	1,000	--	--	--	--
Vanadium	8.2	8.7	11	550	--	--	--
Zinc	29	27	50	5,100	--	--	--
TCLP Metals (mg/L)							
Barium	0.38 J	0.28 J	0.37 J	--	--	--	2
Boron	0.6	0.26 J	0.63	--	--	--	2
Cobalt	ND U	ND U	ND U	--	--	--	1
Lead	ND U	ND U	0.0091 L	--	--	--	0.0075
Manganese	1.7 L	1.2 L	1.2 L	--	--	--	0.15
Nickel	0.021 J	0.013 J	ND U	--	--	--	0.1
Zinc	0.16 J	0.33 J	0.95	--	--	--	5
SPLP Metals (mg/L)							
Lead	NA	NA	0.31 L	--	--	--	0.0075
Manganese	0.085	0.014 J	0.6 L	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-3 (Agricultural land)	Comparison Criteria			
		MACs			TACO
BORING	3011-03-B06				
SAMPLE	3011-03-B06 (0-1)				
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.4	Most Stringent	Within an MSA	Within Chicago	SCGIER
VOCs (mg/kg)					
Acetone	ND U	25	--	--	--
SVOCs (mg/kg)					
2-Methylnaphthalene	ND U	--	--	--	--
Acenaphthylene	ND U	--	--	--	--
Anthracene	0.012 J	12,000	--	--	--
Benzo[a]anthracene	0.059	0.9	1.8	1.1	--
Benzo[a]pyrene	0.069	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.12	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.04	--	--	--	--
Benzo[k]fluoranthene	0.047	9	--	--	--
Chrysene	0.072	88	--	--	--
Fluoranthene	0.13	3,100	--	--	--
Indeno[1,2,3-cd]pyrene	0.037 J	0.9	1.6	0.9	--
Naphthalene	ND U	1.8	--	--	--
Phenanthrene	0.064	--	--	--	--
Pyrene	0.12 J	2,300	--	--	--
Inorganics (mg/kg)					
Antimony	ND UJ	5	--	--	--
Arsenic	5.7	11.3	13	--	--
Barium	60	1,500	--	--	--
Beryllium	0.35 J	22	--	--	--
Boron	8.3 J	40	--	--	--
Cadmium	0.11	5.2	--	--	--
Calcium	100,000	--	--	--	--
Chromium	12 J	21	--	--	--
Cobalt	6.2	20	--	--	--
Copper	15	2,900	--	--	--
Iron	14,000	15,000	15,900	--	--
Lead	89 J	107	--	--	--
Magnesium	36,000	325,000	--	--	--
Manganese	400	630	636	--	--
Mercury	0.019 J	0.89	--	--	--
Nickel	14	100	--	--	--
Potassium	760 J	--	--	--	--
Selenium	0.75 J	1.3	--	--	--
Sodium	2,000	--	--	--	--
Thallium	0.35 J	2.6	--	--	--
Vanadium	18 J	550	--	--	--
Zinc	62	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.61	--	--	--	2
Boron	0.11 J	--	--	--	2
Lead	0.014 L	--	--	--	0.0075
Manganese	0.83 L	--	--	--	0.15
Nickel	ND U	--	--	--	0.1
Zinc	0.21 J	--	--	--	5
SPLP Metals (mg/L)					
Lead	0.63 J L	--	--	--	0.0075
Manganese	1.4 J L	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-7 (Residence)	Comparison Criteria			
BORING	3011-07-B01	MACs			TACO
SAMPLE	3011-07-B01 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.63				
VOCs (None Detected)					
SVOCs (mg/kg)					
2-Methylnaphthalene	0.016 J	--	--	--	--
Acenaphthylene	0.0061 J	--	--	--	--
Anthracene	0.018 J	12,000	--	--	--
Benzo[a]anthracene	0.1	0.9	1.8	1.1	--
Benzo[a]pyrene	0.12 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.21	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.059 J	--	--	--	--
Benzo[k]fluoranthene	0.076	9	--	--	--
Bis(2-ethylhexyl) phthalate	0.086 J	46	--	--	--
Chrysene	0.12	88	--	--	--
Fluoranthene	0.22	3,100	--	--	--
Indeno[1,2,3-cd]pyrene	0.049	0.9	1.6	0.9	--
Naphthalene	0.0086 J	1.8	--	--	--
Phenanthrene	0.095	--	--	--	--
Pyrene	0.21 J	2,300	--	--	--
Inorganics (mg/kg)					
Arsenic	3.6	11.3	13	--	--
Barium	40	1,500	--	--	--
Beryllium	0.35	22	--	--	--
Boron	7.2	40	--	--	--
Cadmium	0.18	5.2	--	--	--
Calcium	120,000	--	--	--	--
Chromium	15 J	21	--	--	--
Cobalt	4.5	20	--	--	--
Copper	13	2,900	--	--	--
Iron	8,900	15,000	15,900	--	--
Lead	100	107	--	--	--
Magnesium	72,000	325,000	--	--	--
Manganese	350	630	636	--	--
Mercury	0.017	0.89	--	--	--
Nickel	11	100	--	--	--
Potassium	640 J	--	--	--	--
Sodium	1,400 J	--	--	--	--
Vanadium	15	550	--	--	--
Zinc	79 J	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.4 J	--	--	--	2
Boron	0.072 J	--	--	--	2
Lead	0.0099 L	--	--	--	0.0075
Manganese	1.4 L	--	--	--	0.15
SPLP Metals (mg/L)					
Lead	0.64 L	--	--	--	0.0075
Manganese	2.2 L	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-8 (Farmstead)	Comparison Criteria			
BORING	3011-08-B01	MACs			TACO
SAMPLE	3011-08-B01 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.77				
VOCs (None Detected)					
SVOCs (mg/kg)					
2-Methylnaphthalene	0.0086 J	--	--	--	--
Acenaphthene	0.01 J	570	--	--	--
Acenaphthylene	0.021 J	--	--	--	--
Anthracene	0.035 J	12,000	--	--	--
Benzo[a]anthracene	0.18	0.9	1.8	1.1	--
Benzo[a]pyrene	0.2 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.32	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.084	--	--	--	--
Benzo[k]fluoranthene	0.14	9	--	--	--
Chrysene	0.2	88	--	--	--
Fluoranthene	0.29	3,100	--	--	--
Fluorene	0.012 J	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.075	0.9	1.6	0.9	--
Naphthalene	0.0079 J	1.8	--	--	--
Phenanthrene	0.15	--	--	--	--
Pyrene	0.46	2,300	--	--	--
Inorganics (mg/kg)					
Arsenic	5	11.3	13	--	--
Barium	59	1,500	--	--	--
Beryllium	0.38	22	--	--	--
Boron	6.5	40	--	--	--
Cadmium	0.12	5.2	--	--	--
Calcium	100,000	--	--	--	--
Chromium	11	21	--	--	--
Cobalt	5.9	20	--	--	--
Copper	12	2,900	--	--	--
Iron	11,000	15,000	15,900	--	--
Lead	49	107	--	--	--
Magnesium	38,000	325,000	--	--	--
Manganese	420	630	636	--	--
Mercury	0.012 J	0.89	--	--	--
Nickel	13	100	--	--	--
Potassium	850	--	--	--	--
Selenium	0.35 J	1.3	--	--	--
Sodium	2,200	--	--	--	--
Vanadium	18	550	--	--	--
Zinc	51	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.48 J	--	--	--	2
Boron	0.086 J	--	--	--	2
Manganese	0.99 L	--	--	--	0.15
Zinc	0.62	--	--	--	5
SPLP Metals (mg/L)					
Manganese	0.94 J L	--	--	--	0.15

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: 500-107703-1
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
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LINKS

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Job ID: 500-107703-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107703-1

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-324219: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: The laboratory control sample duplicate (LCSD) for batch 500-324350 recovered outside control limits for the following analyte: 1,2-Dichloropropane. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260B: Due to internal standard (ISTD) area failures, a dilution was required for the following samples: 3011-03-B01 (0-1) (500-107703-4). The samples were initially analyzed without dilution. All internal standards were outside the QC limits. The sample were re-analyzed with similar results. No usable data was obtained from the un-diluted runs. The samples were re-analyzed at a dilution using the methanol extraction method. All internal standard areas were within limits in the diluted run. Elevated reporting limits have been provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one base/neutral surrogate outside acceptance limits: 3011-03-B02 (0-1) (500-107703-3), 3011-03-B01 (0-1) (500-107703-4), 3011-03-B03 (0-1) (500-107703-5), 3011-03-B05 (0-1) (500-107703-6), (500-107703-E-1-B MS) and (500-107703-E-1-C MSD). The laboratory's SOP allows one acid and/or one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-324037 and analytical batch 500-324749 had 1 analyte outside control limits: Bis(2-chloroethyl)ether; therefore, corrective action was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B06 (0-1)

Lab Sample ID: 500-107703-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.064		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.012	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.13		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.12	F1	0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.059		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.072		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.12		0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.047		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.069		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.037	J	0.038	0.0099	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.040		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.7		0.57	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	60		0.57	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.35	F1	0.23	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	8.3	F2 F1	2.8	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11		0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	100000	B	110	37	mg/Kg	10	☼	6010B	Total/NA
Chromium	12	F2 B F1	0.57	0.098	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.2		0.28	0.064	mg/Kg	1	☼	6010B	Total/NA
Copper	15		0.57	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	14000		11	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	89	F2	0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	36000		5.7	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	400	B	0.57	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	14		0.57	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	760	F2 F1	28	4.6	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.75	F2 F1	0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Sodium	2000		57	7.5	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.35	J	0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18	F2 F1	0.28	0.083	mg/Kg	1	☼	6010B	Total/NA
Zinc	62		1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.61		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J	0.50	0.050	mg/L	1		6010B	TCLP
Lead	0.014		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	0.83		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.21	J B	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.63		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	1.4	F1	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.019	J	0.020	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.40		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107703-1	3011-03-B06 (0-1)	Solid	02/17/16 10:45	02/18/16 07:30

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B06 (0-1)

Lab Sample ID: 500-107703-1

Date Collected: 02/17/16 10:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0033	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Benzene	<0.0042		0.0042	0.00094	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Bromodichloromethane	<0.0042		0.0042	0.00072	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Bromoform	<0.0042		0.0042	0.00087	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Bromomethane	<0.0042	*	0.0042	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
2-Butanone (MEK)	<0.0042		0.0042	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Carbon disulfide	<0.0042		0.0042	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Carbon tetrachloride	<0.0042		0.0042	0.00091	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Chlorobenzene	<0.0042		0.0042	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Chloroethane	<0.0042		0.0042	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Chloroform	<0.0042		0.0042	0.00083	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Chloromethane	<0.0042		0.0042	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
cis-1,2-Dichloroethene	<0.0042		0.0042	0.00087	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
cis-1,3-Dichloropropene	<0.0042		0.0042	0.00097	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Dibromochloromethane	<0.0042		0.0042	0.00049	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
1,1-Dichloroethane	<0.0042		0.0042	0.00088	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
1,2-Dichloroethane	<0.0042		0.0042	0.00063	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
1,1-Dichloroethene	<0.0042		0.0042	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
1,2-Dichloropropane	<0.0042		0.0042	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
1,3-Dichloropropane, Total	<0.0042		0.0042	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Ethylbenzene	<0.0042		0.0042	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Methylene Chloride	<0.0042		0.0042	0.0032	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.00088	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Methyl tert-butyl ether	<0.0042		0.0042	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Styrene	<0.0042		0.0042	0.00099	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
1,1,2,2-Tetrachloroethane	<0.0042		0.0042	0.00067	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Tetrachloroethene	<0.0042		0.0042	0.00088	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Toluene	<0.0042		0.0042	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
trans-1,2-Dichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
trans-1,3-Dichloropropene	<0.0042		0.0042	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
1,1,1-Trichloroethane	<0.0042		0.0042	0.00099	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
1,1,2-Trichloroethane	<0.0042		0.0042	0.00082	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Trichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Vinyl acetate	<0.0042		0.0042	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Vinyl chloride	<0.0042		0.0042	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1
Xylenes, Total	<0.0085		0.0085	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 18:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 122	02/18/16 08:10	02/24/16 18:26	1
Dibromofluoromethane	94		75 - 120	02/18/16 08:10	02/24/16 18:26	1
1,2-Dichloroethane-d4 (Surr)	86		70 - 134	02/18/16 08:10	02/24/16 18:26	1
Toluene-d8 (Surr)	104		75 - 122	02/18/16 08:10	02/24/16 18:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Bis(2-chloroethyl)ether	<0.19	F1 F2 *	0.19	0.057	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B06 (0-1)

Lab Sample ID: 500-107703-1

Date Collected: 02/17/16 10:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Hexachlorocyclopentadiene	<0.77	F1	0.77	0.22	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2-Methylnaphthalene	<0.038	F1	0.038	0.0070	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2,4-Dinitrophenol	<0.77	F1	0.77	0.67	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
4-Bromophenyl phenyl ether	<0.19	F1	0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
N-Nitrosodiphenylamine	<0.19	F1	0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
4,6-Dinitro-2-methylphenol	<0.77	F2	0.77	0.31	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Phenanthrene	0.064		0.038	0.0053	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Anthracene	0.012	J	0.038	0.0064	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Fluoranthene	0.13		0.038	0.0071	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Pyrene	0.12	F1	0.038	0.0076	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Butyl benzyl phthalate	<0.19	F1	0.19	0.073	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Benzo[a]anthracene	0.059		0.038	0.0051	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B06 (0-1)

Lab Sample ID: 500-107703-1

Date Collected: 02/17/16 10:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.072		0.038	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Bis(2-ethylhexyl) phthalate	<0.19	F1	0.19	0.070	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Di-n-octyl phthalate	<0.19	F1	0.19	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Benzo[b]fluoranthene	0.12		0.038	0.0083	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Benzo[k]fluoranthene	0.047		0.038	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Benzo[a]pyrene	0.069		0.038	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Indeno[1,2,3-cd]pyrene	0.037	J	0.038	0.0099	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
Benzo[g,h,i]perylene	0.040		0.038	0.012	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:13	02/28/16 15:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	84		25 - 110	02/23/16 07:13	02/28/16 15:27	1
Phenol-d5	79		31 - 110	02/23/16 07:13	02/28/16 15:27	1
Nitrobenzene-d5	82		25 - 115	02/23/16 07:13	02/28/16 15:27	1
2-Fluorobiphenyl	75		25 - 119	02/23/16 07:13	02/28/16 15:27	1
2,4,6-Tribromophenol	95		35 - 137	02/23/16 07:13	02/28/16 15:27	1
Terphenyl-d14	102		36 - 134	02/23/16 07:13	02/28/16 15:27	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1	F2 F1	1.1	0.24	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Arsenic	5.7		0.57	0.26	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Barium	60		0.57	0.10	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Beryllium	0.35	F1	0.23	0.049	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Boron	8.3	F2 F1	2.8	0.40	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Cadmium	0.11		0.11	0.033	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Calcium	100000	B	110	37	mg/Kg	☼	02/25/16 09:30	02/27/16 22:10	10
Chromium	12	F2 B F1	0.57	0.098	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Cobalt	6.2		0.28	0.064	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Copper	15		0.57	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Iron	14000		11	4.4	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Lead	89	F2	0.28	0.14	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Magnesium	36000		5.7	2.3	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Manganese	400	B	0.57	0.11	mg/Kg	☼	02/25/16 09:30	02/27/16 23:24	1
Nickel	14		0.57	0.15	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Potassium	760	F2 F1	28	4.6	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Selenium	0.75	F2 F1	0.57	0.28	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Silver	<0.28		0.28	0.066	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Sodium	2000		57	7.5	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Thallium	0.35	J	0.57	0.28	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Vanadium	18	F2 F1	0.28	0.083	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1
Zinc	62		1.1	0.36	mg/Kg	☼	02/25/16 09:30	02/26/16 15:48	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.61		0.50	0.050	mg/L		02/23/16 16:01	02/26/16 22:28	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/26/16 22:28	1
Boron	0.11	J	0.50	0.050	mg/L		02/23/16 16:01	02/26/16 22:28	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Client Sample ID: 3011-03-B06 (0-1)

Lab Sample ID: 500-107703-1

Date Collected: 02/17/16 10:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/26/16 22:28	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:28	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:28	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/26/16 22:28	1
Lead	0.014		0.0075	0.0075	mg/L		02/23/16 16:01	02/26/16 22:28	1
Manganese	0.83		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:28	1
Nickel	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:28	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/26/16 22:28	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 22:28	1
Zinc	0.21	J B	0.50	0.020	mg/L		02/23/16 16:01	02/26/16 22:28	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.63		0.0075	0.0075	mg/L		02/23/16 16:10	02/27/16 19:53	1
Manganese	1.4	F1	0.025	0.010	mg/L		02/23/16 16:10	02/27/16 19:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 16:58	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 16:58	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:01	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019	J	0.020	0.010	mg/Kg	☼	02/23/16 15:15	02/24/16 14:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.40		0.200	0.200	SU			02/23/16 11:05	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	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.
*	LCS or LCSD is outside acceptance limits.
E	Result exceeded calibration range.
X	Surrogate is outside control limits

Metals

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.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
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.

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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-1

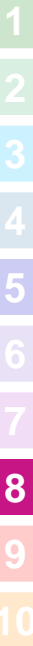
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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



TestAmerica

THE LEADER IN ENVIRONMENT

2417 Bond Street, University Park, IL
Phone: 708.534.5200 Fax: 708.1



500-107703 COC

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 #: 500-107703

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: 31.2, 9.2, 4.3, 3

Client		Client Project #		Preservative							Preservative Key 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		Lab Project #		Parameter								
Project Location/State		Lab Project #		Parameter								
Sampler		Lab PM		Parameter								
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Voc	Svoc	Total PAH	Total PCB	Pb/Cd/Zn	Comments
			Date	Time								
1		3011-03-B06 (01)	2/17/16	1045	2 S		X	X	X	X	X	
2		3011-03-B04 (01)	2/17/16	1050	2 S		X	X	X	X	X	
3		3011-03-B02 (01)	2/17/16	1100	2 S		X	X	X	X	X	
4		3011-03-B01 (01)	2/17/16	1110	2 S		X	X	X	X	X	
5		3011-03-B03 (01)	2/17/16	1115	2 S		X	X	X	X	X	
6		3011-03-B05 (01)	2/17/16	1255	2 S		X	X	X	X	X	
2-17-16												

Turnaround Time Required (Business Days)

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

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>[Signature]</u>	Company: <u>[Signature]</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>
Relinquished By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1645</u>	Received By: <u>[Signature]</u>	Company: <u>TA-CHT</u>	Date: <u>2/18/16</u>	Time: <u>0730</u>

Lab Courier: TA
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: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107703-1

Login Number: 107703

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

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ANALYTICAL REPORT

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

TestAmerica Job ID: 500-107703-3
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 12:42:03 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

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Job ID: 500-107703-3

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107703-3

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: Due to internal standard (ISTD) area failures, a dilution was required for the following samples: 3011-06-B14 (0-1) (500-107703-9), 3011-06-B07 (0-1) (500-107703-12), 3011-06-B04 (0-1) (500-107703-18), 3011-06-B06 (0-1) (500-107703-19) and 3011-06-B12 (0-1) (500-107703-22). The samples were initially analyzed without dilution. All internal standards were outside the QC limits. The samples were re-analyzed with similar results. No usable data was obtained from the un-diluted runs. The samples were re-analyzed at a dilution using the methanol extraction method. All internal standard areas were within limits in the diluted run. Elevated reporting limits have been provided.

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with batches 324522 and 324843: Vinyl Acetate. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one base/neutral surrogate outside acceptance limits: 3011-06-B14 (0-1) (500-107703-9), 3011-06-B11 (0-1) (500-107703-10), 3011-06-B09 (0-1) (500-107703-11), 3011-06-B07 (0-1) (500-107703-12), 3011-06-B05 (0-1) (500-107703-13), 3011-06-B02 (0-1) (500-107703-14), 3011-06-B01 (0-1) (500-107703-15), 3011-06-B01 (0-1)D (500-107703-16), 3011-06-B03 (0-1) (500-107703-17), 3011-06-B04 (0-1) (500-107703-18), 3011-06-B06 (0-1) (500-107703-19), 3011-06-B08 (0-1) (500-107703-20), 3011-06-B10 (0-1) (500-107703-21), (500-107703-E-1-B MS), (500-107703-E-1-C MSD), (500-107703-E-21-B MS) and (500-107703-E-21-C MS). The laboratory's SOP allows one acid and/or one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-324037 and analytical batch 500-324749 had 1 analyte outside control limits: Bis(2-chloroethyl)ether; therefore, corrective action was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324371 and analytical batch 500-324528 contained Calcium, Iron, and Magnesium above the reporting limit (RL). Associated samples 3011-06-B10 (0-1) (500-107703-21), 3011-06-B12 (0-1) (500-107703-22) and 3011-06-B13 (0-1) (500-107703-23) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 7471B: The matrix spike (MS) recoveries for 500-107703-1 were outside control limits for Hg. The sample appears to have been double spiked. The MSD was within control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Job ID: 500-107703-3 (Continued)

Laboratory: TestAmerica Chicago (Continued)

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B14 (0-1)

Lab Sample ID: 500-107703-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.057	J	0.061	0.024	mg/Kg	50	☼	8260B	Total/NA
Phenanthrene	0.085		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.019	J	0.037	0.0062	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.13		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.26		0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.074		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.097		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.17		0.037	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.049		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.087		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.069		0.037	0.0096	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.10		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.9		0.57	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	25		0.57	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.19	J	0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	9.0		2.9	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14		0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	190000	B	110	37	mg/Kg	10	☼	6010B	Total/NA
Chromium	14	B	0.57	0.099	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.1		0.29	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	10		0.57	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	6600		11	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	100		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	110000		57	23	mg/Kg	10	☼	6010B	Total/NA
Manganese	290	B	0.57	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.9		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	600		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Sodium	1000		57	7.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	11		0.29	0.084	mg/Kg	1	☼	6010B	Total/NA
Zinc	50		1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.37	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.63		0.50	0.050	mg/L	1		6010B	TCLP
Lead	0.0091		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.95	B	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.31		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.60		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.015	J	0.017	0.0090	mg/Kg	1	☼	7471B	Total/NA
pH	8.98		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-06-B11 (0-1)

Lab Sample ID: 500-107703-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.018	J	0.039	0.0051	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.037	J	0.039	0.0070	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.040		0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.41		0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.086		0.039	0.0065	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.40		0.039	0.0072	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.73		0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B11 (0-1) (Continued)

Lab Sample ID: 500-107703-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.20		0.039	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.20		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.29		0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.12		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.20		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.13		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.13		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.3		0.47	0.22	mg/Kg	1	☼	6010B	Total/NA
Barium	49		0.47	0.085	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.33		0.19	0.040	mg/Kg	1	☼	6010B	Total/NA
Boron	5.3		2.3	0.33	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.056	J	0.093	0.027	mg/Kg	1	☼	6010B	Total/NA
Calcium	100000	B	93	30	mg/Kg	10	☼	6010B	Total/NA
Chromium	13	B	0.47	0.080	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.1		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Copper	12		0.47	0.10	mg/Kg	1	☼	6010B	Total/NA
Iron	10000		9.3	3.6	mg/Kg	1	☼	6010B	Total/NA
Lead	54		0.23	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	36000		4.7	1.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	360	B	0.47	0.092	mg/Kg	1	☼	6010B	Total/NA
Nickel	22		0.47	0.13	mg/Kg	1	☼	6010B	Total/NA
Potassium	740		23	3.8	mg/Kg	1	☼	6010B	Total/NA
Sodium	1400		47	6.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.23	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	53		0.93	0.29	mg/Kg	1	☼	6010B	Total/NA
Barium	0.54		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.70		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.0		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.13	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.4		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.027		0.019	0.0098	mg/Kg	1	☼	7471B	Total/NA
pH	8.30		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-06-B09 (0-1)

Lab Sample ID: 500-107703-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.13		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.030	J	0.037	0.0062	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.22		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.50		0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.14		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.19		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.092	J	0.19	0.068	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.29		0.037	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.13		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.19		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.18		0.037	0.0096	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.047		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.20		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.9		0.50	0.23	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B09 (0-1) (Continued)

Lab Sample ID: 500-107703-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	41		0.50	0.092	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.59		0.20	0.044	mg/Kg	1	☼	6010B	Total/NA
Boron	11		2.5	0.35	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.084	J	0.10	0.029	mg/Kg	1	☼	6010B	Total/NA
Calcium	230000	B	100	32	mg/Kg	10	☼	6010B	Total/NA
Chromium	12	B	0.50	0.087	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.8		0.25	0.057	mg/Kg	1	☼	6010B	Total/NA
Copper	8.7		0.50	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	6000		10	3.9	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.25	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	84000		50	20	mg/Kg	10	☼	6010B	Total/NA
Manganese	370	B	0.50	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	8.9		0.50	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	420		25	4.1	mg/Kg	1	☼	6010B	Total/NA
Sodium	560		50	6.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.25	0.073	mg/Kg	1	☼	6010B	Total/NA
Zinc	39		1.0	0.32	mg/Kg	1	☼	6010B	Total/NA
Barium	0.39	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.72		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.80		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.60	B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.15		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.014	J	0.018	0.0093	mg/Kg	1	☼	7471B	Total/NA
pH	8.30		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-06-B07 (0-1)

Lab Sample ID: 500-107703-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.040	J	0.056	0.022	mg/Kg	50	☼	8260B	Total/NA
Phenanthrene	0.083		0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.016	J	0.035	0.0058	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.12		0.035	0.0065	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.24		0.035	0.0069	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.066		0.035	0.0047	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.082		0.035	0.0095	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.13		0.035	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.053		0.035	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.082		0.035	0.0068	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.078		0.035	0.0090	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.093		0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Arsenic	1.3		0.40	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	12		0.40	0.074	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.069	J	0.16	0.035	mg/Kg	1	☼	6010B	Total/NA
Boron	9.9		2.0	0.28	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.025	J	0.081	0.023	mg/Kg	1	☼	6010B	Total/NA
Calcium	190000	B	81	26	mg/Kg	10	☼	6010B	Total/NA
Chromium	7.1	B	0.40	0.070	mg/Kg	1	☼	6010B	Total/NA
Cobalt	1.7		0.20	0.046	mg/Kg	1	☼	6010B	Total/NA
Copper	7.0		0.40	0.088	mg/Kg	1	☼	6010B	Total/NA
Iron	3800		8.1	3.1	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B07 (0-1) (Continued)

Lab Sample ID: 500-107703-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	22		0.20	0.10	mg/Kg	1	☼	6010B	Total/NA
Magnesium	120000		40	16	mg/Kg	10	☼	6010B	Total/NA
Manganese	190	B	0.40	0.080	mg/Kg	1	☼	6010B	Total/NA
Nickel	4.6		0.40	0.11	mg/Kg	1	☼	6010B	Total/NA
Potassium	530		20	3.3	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.25	J	0.40	0.20	mg/Kg	1	☼	6010B	Total/NA
Sodium	550		40	5.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	6.1		0.20	0.059	mg/Kg	1	☼	6010B	Total/NA
Zinc	17		0.81	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	0.23	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.55		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.4		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.11	J B	0.50	0.020	mg/L	1		6010B	TCLP
pH	8.34		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-06-B05 (0-1)

Lab Sample ID: 500-107703-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0072	J	0.038	0.0050	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.095		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.015	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.13		0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.28		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.074		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.11		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.17		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.058		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.094		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.10		0.038	0.0099	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.12		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.0		0.49	0.23	mg/Kg	1	☼	6010B	Total/NA
Barium	20		0.49	0.089	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.16	J	0.19	0.042	mg/Kg	1	☼	6010B	Total/NA
Boron	9.3		2.4	0.34	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.085	J	0.097	0.028	mg/Kg	1	☼	6010B	Total/NA
Calcium	150000	B	97	31	mg/Kg	10	☼	6010B	Total/NA
Chromium	13	B	0.49	0.084	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.8		0.24	0.055	mg/Kg	1	☼	6010B	Total/NA
Copper	9.5		0.49	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	7200		9.7	3.8	mg/Kg	1	☼	6010B	Total/NA
Lead	65		0.24	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	89000		49	20	mg/Kg	10	☼	6010B	Total/NA
Manganese	250	B	0.49	0.096	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.2		0.49	0.13	mg/Kg	1	☼	6010B	Total/NA
Potassium	610		24	4.0	mg/Kg	1	☼	6010B	Total/NA
Silver	0.097	J	0.24	0.057	mg/Kg	1	☼	6010B	Total/NA
Sodium	1100		49	6.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	9.4		0.24	0.071	mg/Kg	1	☼	6010B	Total/NA
Zinc	41		0.97	0.31	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B05 (0-1) (Continued)

Lab Sample ID: 500-107703-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.26	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.88		0.50	0.050	mg/L	1		6010B	TCLP
Lead	0.0077		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.18	J B	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.14		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.31		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.033		0.020	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.61		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-06-B02 (0-1)

Lab Sample ID: 500-107703-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0072	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.092		0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.015	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.11		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.25		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.066		0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.094		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.13		0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.053		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.094		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.088		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.12		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.9		0.56	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	33		0.56	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.22		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	5.7		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	110000	B	110	36	mg/Kg	10	☼	6010B	Total/NA
Chromium	15	B	0.56	0.096	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.9		0.28	0.063	mg/Kg	1	☼	6010B	Total/NA
Copper	11		0.56	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	7800		11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	89		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	45000		5.6	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	270	B	0.56	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.7		0.56	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	640		28	4.5	mg/Kg	1	☼	6010B	Total/NA
Sodium	1000		56	7.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.28	0.081	mg/Kg	1	☼	6010B	Total/NA
Zinc	39		1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.45	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.74		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.71		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.34	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.63		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.016	J	0.019	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.68		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)

Lab Sample ID: 500-107703-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.012	J	0.037	0.0049	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.0069	J	0.037	0.0066	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0084	J	0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.17		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.028	J	0.037	0.0062	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.25		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.53		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.16		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.18		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.28		0.037	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.11		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.18		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.16		0.037	0.0096	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.20		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.6		0.47	0.22	mg/Kg	1	☼	6010B	Total/NA
Barium	61		0.47	0.087	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.35		0.19	0.041	mg/Kg	1	☼	6010B	Total/NA
Boron	5.2		2.4	0.33	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.082	J	0.095	0.027	mg/Kg	1	☼	6010B	Total/NA
Calcium	50000	B	95	31	mg/Kg	10	☼	6010B	Total/NA
Chromium	11	B	0.47	0.081	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.6		0.24	0.054	mg/Kg	1	☼	6010B	Total/NA
Copper	13		0.47	0.10	mg/Kg	1	☼	6010B	Total/NA
Iron	11000		9.5	3.7	mg/Kg	1	☼	6010B	Total/NA
Lead	36		0.24	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	22000		4.7	1.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	390	B	0.47	0.094	mg/Kg	1	☼	6010B	Total/NA
Nickel	15		0.47	0.13	mg/Kg	1	☼	6010B	Total/NA
Potassium	910		24	3.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.28	J	0.47	0.23	mg/Kg	1	☼	6010B	Total/NA
Sodium	1500		47	6.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	19		0.24	0.069	mg/Kg	1	☼	6010B	Total/NA
Zinc	59		0.95	0.30	mg/Kg	1	☼	6010B	Total/NA
Barium	0.49	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.58		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.1		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.090	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.99		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.017		0.016	0.0085	mg/Kg	1	☼	7471B	Total/NA
pH	8.55		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-06-B01 (0-1)D

Lab Sample ID: 500-107703-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.010	J	0.038	0.0058	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.018	J	0.038	0.0050	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.18		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.024	J	0.038	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.24		0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.53		0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)D (Continued)

Lab Sample ID: 500-107703-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.15		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.18		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.29		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.082		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.17		0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.17		0.038	0.0098	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.052		0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.20		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.9		0.50	0.23	mg/Kg	1	☼	6010B	Total/NA
Barium	74		0.50	0.091	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.35		0.20	0.043	mg/Kg	1	☼	6010B	Total/NA
Boron	7.1		2.5	0.35	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.13		0.10	0.029	mg/Kg	1	☼	6010B	Total/NA
Calcium	89000	B	100	32	mg/Kg	10	☼	6010B	Total/NA
Chromium	12	B	0.50	0.086	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.9		0.25	0.056	mg/Kg	1	☼	6010B	Total/NA
Copper	16		0.50	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	10000		10	3.8	mg/Kg	1	☼	6010B	Total/NA
Lead	44		0.25	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	32000		5.0	2.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	360	B	0.50	0.099	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.50	0.13	mg/Kg	1	☼	6010B	Total/NA
Potassium	810		25	4.1	mg/Kg	1	☼	6010B	Total/NA
Sodium	1300		50	6.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.25	0.073	mg/Kg	1	☼	6010B	Total/NA
Zinc	66		1.0	0.32	mg/Kg	1	☼	6010B	Total/NA
Barium	0.53		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.63		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.81		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.15	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.3		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.026		0.020	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.61		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-06-B03 (0-1)

Lab Sample ID: 500-107703-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.11		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.015	J	0.037	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.12		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.25		0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.065		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.087		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.19		0.19	0.068	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.11		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.061		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.080		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.081		0.037	0.0097	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.099		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.2		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B03 (0-1) (Continued)

Lab Sample ID: 500-107703-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	25		0.54	0.099	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.12	J	0.22	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	8.1		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.15		0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	170000	B	110	35	mg/Kg	10	☼	6010B	Total/NA
Chromium	6.8	B	0.54	0.093	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.7		0.27	0.061	mg/Kg	1	☼	6010B	Total/NA
Copper	11		0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	5300		11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	33		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	110000		54	22	mg/Kg	10	☼	6010B	Total/NA
Manganese	300	B	0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	6.4		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	530		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.32	J	0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Silver	1.4		0.27	0.063	mg/Kg	1	☼	6010B	Total/NA
Sodium	710		54	7.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	8.4		0.27	0.079	mg/Kg	1	☼	6010B	Total/NA
Zinc	34		1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.33	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.61		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.19	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.077		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.35		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-06-B04 (0-1)

Lab Sample ID: 500-107703-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.051		0.046	0.018	mg/Kg	50	☼	8260B	Total/NA
Phenanthrene	0.020	J	0.034	0.0048	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.042		0.034	0.0064	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.10		0.034	0.0069	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.033	J	0.034	0.0046	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.047		0.034	0.0094	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.079		0.034	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.025	J	0.034	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.049		0.034	0.0067	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.055		0.034	0.0089	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.082		0.034	0.011	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.4		0.50	0.23	mg/Kg	1	☼	6010B	Total/NA
Barium	12		0.50	0.091	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.11	J	0.20	0.043	mg/Kg	1	☼	6010B	Total/NA
Boron	12		2.5	0.35	mg/Kg	1	☼	6010B	Total/NA
Calcium	190000	B	99	32	mg/Kg	10	☼	6010B	Total/NA
Chromium	6.2	B	0.50	0.085	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.0		0.25	0.056	mg/Kg	1	☼	6010B	Total/NA
Copper	5.9		0.50	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	4700		9.9	3.8	mg/Kg	1	☼	6010B	Total/NA
Lead	13		0.25	0.12	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B04 (0-1) (Continued)

Lab Sample ID: 500-107703-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	110000		50	20	mg/Kg	10	☼	6010B	Total/NA
Manganese	220	B	0.50	0.098	mg/Kg	1	☼	6010B	Total/NA
Nickel	5.2		0.50	0.13	mg/Kg	1	☼	6010B	Total/NA
Potassium	600		25	4.0	mg/Kg	1	☼	6010B	Total/NA
Sodium	570		50	6.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	6.5		0.25	0.072	mg/Kg	1	☼	6010B	Total/NA
Zinc	20		0.99	0.31	mg/Kg	1	☼	6010B	Total/NA
Barium	0.21	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.56		0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	1.9		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.018	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.28	J B	0.50	0.020	mg/L	1		6010B	TCLP
pH	9.11		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-06-B06 (0-1)

Lab Sample ID: 500-107703-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.26		0.23	0.080	mg/Kg	50	☼	8260B	Total/NA
Methyl tert-butyl ether	0.073		0.046	0.018	mg/Kg	50	☼	8260B	Total/NA
Phenanthrene	0.052		0.036	0.0050	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0097	J	0.036	0.0060	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.061		0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.15		0.036	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.050		0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.065		0.036	0.0098	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.080		0.036	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.036		0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.059		0.036	0.0070	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.061		0.036	0.0093	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.084		0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.2		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	35		0.54	0.098	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.27		0.21	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	5.3		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.068	J	0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	70000	B	110	35	mg/Kg	10	☼	6010B	Total/NA
Chromium	9.1	B	0.54	0.092	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.9		0.27	0.061	mg/Kg	1	☼	6010B	Total/NA
Copper	8.9		0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	7400		11	4.1	mg/Kg	1	☼	6010B	Total/NA
Lead	31		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	30000		5.4	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	240	B	0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.9		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	670		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Sodium	1300		54	7.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	13		0.27	0.078	mg/Kg	1	☼	6010B	Total/NA
Zinc	39		1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.39	J	0.50	0.050	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B06 (0-1) (Continued)

Lab Sample ID: 500-107703-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.075	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.78		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.24	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.6		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.019		0.017	0.0089	mg/Kg	1	☼	7471B	Total/NA
pH	8.75		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-06-B08 (0-1)

Lab Sample ID: 500-107703-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.059		0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.012	J	0.039	0.0066	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.078		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.19		0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.060		0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.082		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.12		0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.12		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.076		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.11		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.7		0.55	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	45		0.55	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.33		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	7.6		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.24		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	96000	B	110	36	mg/Kg	10	☼	6010B	Total/NA
Chromium	14	B	0.55	0.095	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.7		0.28	0.062	mg/Kg	1	☼	6010B	Total/NA
Copper	16		0.55	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	9900		11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	140		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	40000		5.5	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	370	B	0.55	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	12		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	870		28	4.5	mg/Kg	1	☼	6010B	Total/NA
Sodium	1700		55	7.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.28	0.081	mg/Kg	1	☼	6010B	Total/NA
Zinc	67		1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.23	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.060	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.51		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.16	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.51		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.017	J	0.018	0.0093	mg/Kg	1	☼	7471B	Total/NA
pH	8.69		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-06-B10 (0-1)

Lab Sample ID: 500-107703-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0067	J	0.036	0.0055	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B10 (0-1) (Continued)

Lab Sample ID: 500-107703-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.012	J	0.036	0.0066	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.0057	J	0.036	0.0047	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0054	J	0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.089		0.036	0.0050	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.017	J	0.036	0.0060	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.17	F1	0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.17	F1	0.036	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.073		0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.091		0.036	0.0098	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.13		0.036	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.070		0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.086		0.036	0.0070	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.049		0.036	0.0093	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.046		0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.1		0.56	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	32		0.56	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.27		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	8.2	F1	2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	130000	F2 B	110	36	mg/Kg	10	☼	6010B	Total/NA
Chromium	9.9	F1 B	0.56	0.096	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.9		0.28	0.063	mg/Kg	1	☼	6010B	Total/NA
Copper	12		0.56	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	8300	B	11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	91		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	75000	F2 B	56	23	mg/Kg	10	☼	6010B	Total/NA
Manganese	270		0.56	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	10		0.56	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	720	F1	28	4.6	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.42	J F1 B	0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Sodium	1300	F1	56	7.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	13		0.28	0.082	mg/Kg	1	☼	6010B	Total/NA
Zinc	52		1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.36	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.58		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.1		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.068	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.28		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.019	F1 F2	0.018	0.0095	mg/Kg	1	☼	7471B	Total/NA
pH	8.52		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-06-B12 (0-1)

Lab Sample ID: 500-107703-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.10		0.047	0.019	mg/Kg	50	☼	8260B	Total/NA
Phenanthrene	0.065		0.036	0.0050	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.017	J	0.036	0.0060	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.12		0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.13		0.036	0.0072	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B12 (0-1) (Continued)

Lab Sample ID: 500-107703-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.052		0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.064		0.036	0.0098	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.10		0.036	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.046		0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.063		0.036	0.0070	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.026	J	0.036	0.0093	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.026	J	0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.7		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	21		0.54	0.099	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.13	J	0.22	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	7.3		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.080	J	0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	170000	B	110	35	mg/Kg	10	☼	6010B	Total/NA
Chromium	9.2	B	0.54	0.093	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.4		0.27	0.061	mg/Kg	1	☼	6010B	Total/NA
Copper	8.4		0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	5600	B	11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	38		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	100000	B	54	22	mg/Kg	10	☼	6010B	Total/NA
Manganese	220		0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	6.4		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	480		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Silver	0.11	J	0.27	0.063	mg/Kg	1	☼	6010B	Total/NA
Sodium	930		54	7.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	8.2		0.27	0.079	mg/Kg	1	☼	6010B	Total/NA
Zinc	29		1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.38	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.60		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.7		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.021	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.16	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.085		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.84		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-06-B13 (0-1)

Lab Sample ID: 500-107703-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	0.0055	J	0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.059		0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.013	J	0.035	0.0058	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.089		0.035	0.0065	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.11		0.035	0.0069	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.041		0.035	0.0047	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.058		0.035	0.0095	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.087		0.035	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.044		0.035	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.052		0.035	0.0067	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.026	J	0.035	0.0090	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.026	J	0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.9		0.43	0.20	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B13 (0-1) (Continued)

Lab Sample ID: 500-107703-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	26		0.43	0.079	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.15	J	0.17	0.037	mg/Kg	1	☼	6010B	Total/NA
Boron	8.7		2.1	0.30	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.052	J	0.086	0.025	mg/Kg	1	☼	6010B	Total/NA
Calcium	170000	B	86	28	mg/Kg	10	☼	6010B	Total/NA
Chromium	6.3	B	0.43	0.074	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.7		0.21	0.049	mg/Kg	1	☼	6010B	Total/NA
Copper	9.9		0.43	0.093	mg/Kg	1	☼	6010B	Total/NA
Iron	5400	B	8.6	3.3	mg/Kg	1	☼	6010B	Total/NA
Lead	24		0.21	0.11	mg/Kg	1	☼	6010B	Total/NA
Magnesium	98000	B	43	17	mg/Kg	10	☼	6010B	Total/NA
Manganese	290		0.43	0.085	mg/Kg	1	☼	6010B	Total/NA
Nickel	6.3		0.43	0.12	mg/Kg	1	☼	6010B	Total/NA
Potassium	500		21	3.5	mg/Kg	1	☼	6010B	Total/NA
Sodium	830		43	5.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	8.7		0.21	0.063	mg/Kg	1	☼	6010B	Total/NA
Zinc	27		0.86	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	0.28	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.26	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.33	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.014	J	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.012	J	0.017	0.0091	mg/Kg	1	☼	7471B	Total/NA
pH	8.35		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107703-9	3011-06-B14 (0-1)	Solid	02/17/16 09:45	02/18/16 07:30
500-107703-10	3011-06-B11 (0-1)	Solid	02/17/16 10:00	02/18/16 07:30
500-107703-11	3011-06-B09 (0-1)	Solid	02/17/16 10:05	02/18/16 07:30
500-107703-12	3011-06-B07 (0-1)	Solid	02/17/16 10:15	02/18/16 07:30
500-107703-13	3011-06-B05 (0-1)	Solid	02/17/16 10:25	02/18/16 07:30
500-107703-14	3011-06-B02 (0-1)	Solid	02/17/16 10:40	02/18/16 07:30
500-107703-15	3011-06-B01 (0-1)	Solid	02/17/16 13:05	02/18/16 07:30
500-107703-16	3011-06-B01 (0-1)D	Solid	02/17/16 13:05	02/18/16 07:30
500-107703-17	3011-06-B03 (0-1)	Solid	02/17/16 13:30	02/18/16 07:30
500-107703-18	3011-06-B04 (0-1)	Solid	02/17/16 13:35	02/18/16 07:30
500-107703-19	3011-06-B06 (0-1)	Solid	02/17/16 13:45	02/18/16 07:30
500-107703-20	3011-06-B08 (0-1)	Solid	02/17/16 13:50	02/18/16 07:30
500-107703-21	3011-06-B10 (0-1)	Solid	02/17/16 13:55	02/18/16 07:30
500-107703-22	3011-06-B12 (0-1)	Solid	02/17/16 14:00	02/18/16 07:30
500-107703-23	3011-06-B13 (0-1)	Solid	02/17/16 14:05	02/18/16 07:30

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B14 (0-1)

Lab Sample ID: 500-107703-9

Date Collected: 02/17/16 09:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.30		0.30	0.11	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Benzene	<0.015		0.015	0.0089	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Bromodichloromethane	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Bromoform	<0.061		0.061	0.029	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Bromomethane	<0.12		0.12	0.048	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
2-Butanone (MEK)	<0.30		0.30	0.13	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Carbon disulfide	<0.12		0.12	0.049	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Carbon tetrachloride	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Chlorobenzene	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Chloroethane	<0.061		0.061	0.031	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Chloroform	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Chloromethane	<0.061		0.061	0.019	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
cis-1,2-Dichloroethene	<0.061		0.061	0.025	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
cis-1,3-Dichloropropene	<0.061		0.061	0.025	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Dibromochloromethane	<0.061		0.061	0.030	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,1-Dichloroethane	<0.061		0.061	0.025	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,2-Dichloroethane	<0.061		0.061	0.024	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,1-Dichloroethene	<0.061		0.061	0.024	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,2-Dichloropropane	<0.061		0.061	0.026	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,3-Dichloropropene, Total	<0.061		0.061	0.025	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Ethylbenzene	<0.015		0.015	0.011	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
2-Hexanone	<0.30		0.30	0.095	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Methylene Chloride	<0.30		0.30	0.099	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
4-Methyl-2-pentanone (MIBK)	<0.30		0.30	0.13	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Methyl tert-butyl ether	0.057	J	0.061	0.024	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Styrene	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,1,2,2-Tetrachloroethane	<0.061		0.061	0.024	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Tetrachloroethene	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Toluene	<0.015		0.015	0.0089	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
trans-1,2-Dichloroethene	<0.061		0.061	0.021	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
trans-1,3-Dichloropropene	<0.061		0.061	0.022	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,1,1-Trichloroethane	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,1,2-Trichloroethane	<0.061		0.061	0.021	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Trichloroethene	<0.030		0.030	0.010	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Vinyl acetate	<0.12		0.12	0.055	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Vinyl chloride	<0.030		0.030	0.016	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Xylenes, Total	<0.030		0.030	0.013	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		75 - 120	02/17/16 09:45	03/01/16 12:49	50
Dibromofluoromethane	88		75 - 120	02/17/16 09:45	03/01/16 12:49	50
1,2-Dichloroethane-d4 (Surr)	84		75 - 125	02/17/16 09:45	03/01/16 12:49	50
Toluene-d8 (Surr)	95		75 - 120	02/17/16 09:45	03/01/16 12:49	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.056	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B14 (0-1)

Lab Sample ID: 500-107703-9

Date Collected: 02/17/16 09:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2-Methylnaphthalene	<0.037		0.037	0.0068	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Phenanthrene	0.085		0.037	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Anthracene	0.019 J		0.037	0.0062	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Carbazole	<0.19		0.19	0.093	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Fluoranthene	0.13		0.037	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Pyrene	0.26		0.037	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Benzo[a]anthracene	0.074		0.037	0.0050	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B14 (0-1)

Lab Sample ID: 500-107703-9

Date Collected: 02/17/16 09:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.097		0.037	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Benzo[b]fluoranthene	0.17		0.037	0.0080	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Benzo[k]fluoranthene	0.049		0.037	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Benzo[a]pyrene	0.087		0.037	0.0072	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Indeno[1,2,3-cd]pyrene	0.069		0.037	0.0096	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Benzo[g,h,i]perylene	0.10		0.037	0.012	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	81		25 - 110	02/23/16 07:13	02/28/16 19:16	1
Phenol-d5	54		31 - 110	02/23/16 07:13	02/28/16 19:16	1
Nitrobenzene-d5	80		25 - 115	02/23/16 07:13	02/28/16 19:16	1
2-Fluorobiphenyl	74		25 - 119	02/23/16 07:13	02/28/16 19:16	1
2,4,6-Tribromophenol	102		35 - 137	02/23/16 07:13	02/28/16 19:16	1
Terphenyl-d14	191	X	36 - 134	02/23/16 07:13	02/28/16 19:16	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	☼	02/25/16 09:30	02/26/16 16:58	1
Arsenic	2.9		0.57	0.26	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Barium	25		0.57	0.10	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Beryllium	0.19	J	0.23	0.050	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Boron	9.0		2.9	0.40	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Cadmium	0.14		0.11	0.033	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Calcium	190000	B	110	37	mg/Kg	☼	02/25/16 09:30	02/27/16 23:09	10
Chromium	14	B	0.57	0.099	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Cobalt	3.1		0.29	0.065	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Copper	10		0.57	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Iron	6600		11	4.4	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Lead	100		0.29	0.14	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Magnesium	110000		57	23	mg/Kg	☼	02/25/16 09:30	02/27/16 23:09	10
Manganese	290	B	0.57	0.11	mg/Kg	☼	02/25/16 09:30	02/28/16 00:41	1
Nickel	7.9		0.57	0.16	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Potassium	600		29	4.7	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Selenium	<0.57		0.57	0.28	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Silver	<0.29		0.29	0.067	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Sodium	1000		57	7.6	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Vanadium	11		0.29	0.084	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Zinc	50		1.1	0.36	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.37	J	0.50	0.050	mg/L		02/23/16 16:01	02/26/16 23:38	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/26/16 23:38	1
Boron	0.63		0.50	0.050	mg/L		02/23/16 16:01	02/26/16 23:38	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B14 (0-1)

Lab Sample ID: 500-107703-9

Date Collected: 02/17/16 09:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	02/23/16 16:01	02/26/16 23:38	1
Chromium	<0.025		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:38	1
Cobalt	<0.025		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:38	1
Iron	<0.40		0.40	0.20	mg/L	-	02/23/16 16:01	02/26/16 23:38	1
Lead	0.0091		0.0075	0.0075	mg/L	-	02/23/16 16:01	02/26/16 23:38	1
Manganese	1.2		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:38	1
Nickel	<0.025		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:38	1
Selenium	<0.050		0.050	0.020	mg/L	-	02/23/16 16:01	02/26/16 23:38	1
Silver	<0.025		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:38	1
Zinc	0.95	B	0.50	0.020	mg/L	-	02/23/16 16:01	02/26/16 23:38	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.31		0.0075	0.0075	mg/L	-	02/23/16 16:10	02/27/16 21:32	1
Manganese	0.60		0.025	0.010	mg/L	-	02/23/16 16:10	02/27/16 21:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	02/23/16 16:01	02/25/16 17:39	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	02/23/16 16:01	02/25/16 17:39	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	02/23/16 16:45	02/24/16 12:23	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	J	0.017	0.0090	mg/Kg	☼	02/23/16 15:15	02/24/16 14:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.98		0.200	0.200	SU	-		02/23/16 11:51	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B11 (0-1)

Lab Sample ID: 500-107703-10

Date Collected: 02/17/16 10:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 83.9

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	☼	02/18/16 08:10	02/29/16 21:28	1
Benzene	<0.0052		0.0052	0.0012	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Bromodichloromethane	<0.0052		0.0052	0.00088	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Bromoform	<0.0052		0.0052	0.0011	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Bromomethane	<0.0052		0.0052	0.0019	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
2-Butanone (MEK)	<0.0052		0.0052	0.0019	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Carbon disulfide	<0.0052		0.0052	0.0019	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Carbon tetrachloride	<0.0052		0.0052	0.0011	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Chlorobenzene	<0.0052		0.0052	0.0012	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Chloroethane	<0.0052		0.0052	0.0022	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Chloroform	<0.0052		0.0052	0.0010	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Chloromethane	<0.0052		0.0052	0.0013	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
cis-1,2-Dichloroethene	<0.0052		0.0052	0.0011	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
cis-1,3-Dichloropropene	<0.0052		0.0052	0.0012	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Dibromochloromethane	<0.0052		0.0052	0.00060	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
1,1-Dichloroethane	<0.0052		0.0052	0.0011	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
1,2-Dichloroethane	<0.0052		0.0052	0.00078	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
1,1-Dichloroethene	<0.0052		0.0052	0.0019	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
1,2-Dichloropropane	<0.0052		0.0052	0.0014	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
1,3-Dichloropropane, Total	<0.0052		0.0052	0.0015	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Ethylbenzene	<0.0052		0.0052	0.0013	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
2-Hexanone	<0.0052		0.0052	0.0016	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Methylene Chloride	<0.0052		0.0052	0.0040	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
4-Methyl-2-pentanone (MIBK)	<0.0052		0.0052	0.0011	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Methyl tert-butyl ether	<0.0052		0.0052	0.0012	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Styrene	<0.0052		0.0052	0.0012	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
1,1,2,2-Tetrachloroethane	<0.0052		0.0052	0.00083	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Tetrachloroethene	<0.0052		0.0052	0.0011	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Toluene	<0.0052		0.0052	0.0018	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
trans-1,2-Dichloroethene	<0.0052		0.0052	0.0013	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
trans-1,3-Dichloropropene	<0.0052		0.0052	0.0015	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
1,1,1-Trichloroethane	<0.0052		0.0052	0.0012	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
1,1,2-Trichloroethane	<0.0052		0.0052	0.0010	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Trichloroethene	<0.0052		0.0052	0.0014	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Vinyl acetate	<0.0052 *		0.0052	0.0014	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Vinyl chloride	<0.0052		0.0052	0.0012	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1
Xylenes, Total	<0.010		0.010	0.0019	mg/Kg	☼	02/18/16 08:10	02/29/16 21:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 122	02/18/16 08:10	02/29/16 21:28	1
Dibromofluoromethane	108		75 - 120	02/18/16 08:10	02/29/16 21:28	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 134	02/18/16 08:10	02/29/16 21:28	1
Toluene-d8 (Surr)	113		75 - 122	02/18/16 08:10	02/29/16 21:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.087	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Bis(2-chloroethyl)ether	<0.20 *		0.20	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B11 (0-1)

Lab Sample ID: 500-107703-10

Date Collected: 02/17/16 10:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 83.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Acenaphthylene	0.018	J	0.039	0.0051	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Acenaphthene	0.037	J	0.039	0.0070	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Fluorene	0.040		0.039	0.0055	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Hexachlorobenzene	<0.079		0.079	0.0090	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Phenanthrene	0.41		0.039	0.0054	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Anthracene	0.086		0.039	0.0065	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Fluoranthene	0.40		0.039	0.0072	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Pyrene	0.73		0.039	0.0078	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Benzo[a]anthracene	0.20		0.039	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B11 (0-1)

Lab Sample ID: 500-107703-10

Date Collected: 02/17/16 10:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 83.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.20		0.039	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Benzo[b]fluoranthene	0.29		0.039	0.0084	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Benzo[k]fluoranthene	0.12		0.039	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Benzo[a]pyrene	0.20		0.039	0.0076	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Indeno[1,2,3-cd]pyrene	0.13		0.039	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
Benzo[g,h,i]perylene	0.13		0.039	0.013	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	02/23/16 07:13	02/28/16 19:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	87		25 - 110	02/23/16 07:13	02/28/16 19:45	1
Phenol-d5	70		31 - 110	02/23/16 07:13	02/28/16 19:45	1
Nitrobenzene-d5	87		25 - 115	02/23/16 07:13	02/28/16 19:45	1
2-Fluorobiphenyl	76		25 - 119	02/23/16 07:13	02/28/16 19:45	1
2,4,6-Tribromophenol	89		35 - 137	02/23/16 07:13	02/28/16 19:45	1
Terphenyl-d14	181	X	36 - 134	02/23/16 07:13	02/28/16 19:45	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.93		0.93	0.19	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1
Arsenic	5.3		0.47	0.22	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1
Barium	49		0.47	0.085	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1
Beryllium	0.33		0.19	0.040	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1
Boron	5.3		2.3	0.33	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1
Cadmium	0.056	J	0.093	0.027	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1
Calcium	100000	B	93	30	mg/Kg	☼	02/25/16 09:30	02/27/16 23:13	10
Chromium	13	B	0.47	0.080	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1
Cobalt	6.1		0.23	0.053	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1
Copper	12		0.47	0.10	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1
Iron	10000		9.3	3.6	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1
Lead	54		0.23	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1
Magnesium	36000		4.7	1.9	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1
Manganese	360	B	0.47	0.092	mg/Kg	☼	02/25/16 09:30	02/28/16 00:46	1
Nickel	22		0.47	0.13	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1
Potassium	740		23	3.8	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1
Selenium	<0.47		0.47	0.23	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1
Silver	<0.23		0.23	0.055	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1
Sodium	1400		47	6.1	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1
Thallium	<0.47		0.47	0.23	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1
Vanadium	17		0.23	0.068	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1
Zinc	53		0.93	0.29	mg/Kg	☼	02/25/16 09:30	02/26/16 17:17	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.54		0.50	0.050	mg/L		02/23/16 16:01	02/26/16 23:45	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/26/16 23:45	1
Boron	0.70		0.50	0.050	mg/L		02/23/16 16:01	02/26/16 23:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B11 (0-1)

Lab Sample ID: 500-107703-10

Date Collected: 02/17/16 10:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 83.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/26/16 23:45	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:45	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:45	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/26/16 23:45	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/23/16 16:01	02/26/16 23:45	1
Manganese	1.0		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:45	1
Nickel	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:45	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/26/16 23:45	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:45	1
Zinc	0.13	J B	0.50	0.020	mg/L		02/23/16 16:01	02/26/16 23:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.4		0.025	0.010	mg/L		02/23/16 16:10	02/27/16 21:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 17:43	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 17:43	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:25	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.027		0.019	0.0098	mg/Kg	☼	02/23/16 15:15	02/24/16 14:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.30		0.200	0.200	SU			02/23/16 11:56	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B09 (0-1)

Lab Sample ID: 500-107703-11

Date Collected: 02/17/16 10:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.021		0.021	0.0041	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Benzene	<0.0053		0.0053	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Bromodichloromethane	<0.0053		0.0053	0.00090	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Bromoform	<0.0053		0.0053	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Bromomethane	<0.0053		0.0053	0.0020	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
2-Butanone (MEK)	<0.0053		0.0053	0.0019	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Carbon disulfide	<0.0053		0.0053	0.0020	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Carbon tetrachloride	<0.0053		0.0053	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Chlorobenzene	<0.0053		0.0053	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Chloroethane	<0.0053		0.0053	0.0022	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Chloroform	<0.0053		0.0053	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Chloromethane	<0.0053		0.0053	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
cis-1,2-Dichloroethene	<0.0053		0.0053	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
cis-1,3-Dichloropropene	<0.0053		0.0053	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Dibromochloromethane	<0.0053		0.0053	0.00061	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
1,1-Dichloroethane	<0.0053		0.0053	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
1,2-Dichloroethane	<0.0053		0.0053	0.00079	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
1,1-Dichloroethene	<0.0053		0.0053	0.0019	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
1,2-Dichloropropane	<0.0053		0.0053	0.0014	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
1,3-Dichloropropane, Total	<0.0053		0.0053	0.0015	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Ethylbenzene	<0.0053		0.0053	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
2-Hexanone	<0.0053		0.0053	0.0016	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Methylene Chloride	<0.0053		0.0053	0.0040	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
4-Methyl-2-pentanone (MIBK)	<0.0053		0.0053	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Methyl tert-butyl ether	<0.0053		0.0053	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Styrene	<0.0053		0.0053	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
1,1,2,2-Tetrachloroethane	<0.0053		0.0053	0.00084	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Tetrachloroethene	<0.0053		0.0053	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Toluene	<0.0053		0.0053	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
trans-1,2-Dichloroethene	<0.0053		0.0053	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
trans-1,3-Dichloropropene	<0.0053		0.0053	0.0015	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
1,1,1-Trichloroethane	<0.0053		0.0053	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
1,1,2-Trichloroethane	<0.0053		0.0053	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Trichloroethene	<0.0053		0.0053	0.0014	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Vinyl acetate	<0.0053 *		0.0053	0.0014	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Vinyl chloride	<0.0053		0.0053	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1
Xylenes, Total	<0.011		0.011	0.0020	mg/Kg	☼	02/18/16 08:10	02/26/16 15:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 122	02/18/16 08:10	02/26/16 15:59	1
Dibromofluoromethane	97		75 - 120	02/18/16 08:10	02/26/16 15:59	1
1,2-Dichloroethane-d4 (Surr)	85		70 - 134	02/18/16 08:10	02/26/16 15:59	1
Toluene-d8 (Surr)	108		75 - 122	02/18/16 08:10	02/26/16 15:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Bis(2-chloroethyl)ether	<0.19 *		0.19	0.056	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B09 (0-1)

Lab Sample ID: 500-107703-11

Date Collected: 02/17/16 10:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
2-Methylnaphthalene	<0.037		0.037	0.0068	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Phenanthrene	0.13		0.037	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Anthracene	0.030 J		0.037	0.0062	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Carbazole	<0.19		0.19	0.093	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Fluoranthene	0.22		0.037	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Pyrene	0.50		0.037	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Benzo[a]anthracene	0.14		0.037	0.0050	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B09 (0-1)

Lab Sample ID: 500-107703-11

Date Collected: 02/17/16 10:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.19		0.037	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Bis(2-ethylhexyl) phthalate	0.092	J	0.19	0.068	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Benzo[b]fluoranthene	0.29		0.037	0.0080	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Benzo[k]fluoranthene	0.13		0.037	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Benzo[a]pyrene	0.19		0.037	0.0072	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Indeno[1,2,3-cd]pyrene	0.18		0.037	0.0096	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Dibenz(a,h)anthracene	0.047		0.037	0.0072	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
Benzo[g,h,i]perylene	0.20		0.037	0.012	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 20:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	85		25 - 110	02/23/16 07:13	02/28/16 20:14	1
Phenol-d5	94		31 - 110	02/23/16 07:13	02/28/16 20:14	1
Nitrobenzene-d5	87		25 - 115	02/23/16 07:13	02/28/16 20:14	1
2-Fluorobiphenyl	80		25 - 119	02/23/16 07:13	02/28/16 20:14	1
2,4,6-Tribromophenol	97		35 - 137	02/23/16 07:13	02/28/16 20:14	1
Terphenyl-d14	199	X	36 - 134	02/23/16 07:13	02/28/16 20:14	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.21	mg/Kg	☼	02/25/16 09:30	02/26/16 17:22	1
Arsenic	2.9		0.50	0.23	mg/Kg	☼	02/25/16 09:30	02/26/16 17:22	1
Barium	41		0.50	0.092	mg/Kg	☼	02/25/16 09:30	02/26/16 17:22	1
Beryllium	0.59		0.20	0.044	mg/Kg	☼	02/25/16 09:30	02/26/16 17:22	1
Boron	11		2.5	0.35	mg/Kg	☼	02/25/16 09:30	02/26/16 17:22	1
Cadmium	0.084	J	0.10	0.029	mg/Kg	☼	02/25/16 09:30	02/26/16 17:22	1
Calcium	230000	B	100	32	mg/Kg	☼	02/25/16 09:30	02/27/16 23:17	10
Chromium	12	B	0.50	0.087	mg/Kg	☼	02/25/16 09:30	02/26/16 17:22	1
Cobalt	2.8		0.25	0.057	mg/Kg	☼	02/25/16 09:30	02/26/16 17:22	1
Copper	8.7		0.50	0.11	mg/Kg	☼	02/25/16 09:30	02/26/16 17:22	1
Iron	6000		10	3.9	mg/Kg	☼	02/25/16 09:30	02/26/16 17:22	1
Lead	14		0.25	0.13	mg/Kg	☼	02/25/16 09:30	02/26/16 17:22	1
Magnesium	84000		50	20	mg/Kg	☼	02/25/16 09:30	02/27/16 23:17	10
Manganese	370	B	0.50	0.10	mg/Kg	☼	02/25/16 09:30	02/28/16 00:51	1
Nickel	8.9		0.50	0.14	mg/Kg	☼	02/25/16 09:30	02/26/16 17:22	1
Potassium	420		25	4.1	mg/Kg	☼	02/25/16 09:30	02/26/16 17:22	1
Selenium	<0.50		0.50	0.25	mg/Kg	☼	02/25/16 09:30	02/26/16 17:22	1
Silver	<0.25		0.25	0.059	mg/Kg	☼	02/25/16 09:30	02/26/16 17:22	1
Sodium	560		50	6.6	mg/Kg	☼	02/25/16 09:30	02/26/16 17:22	1
Thallium	<0.50		0.50	0.25	mg/Kg	☼	02/25/16 09:30	02/26/16 17:22	1
Vanadium	14		0.25	0.073	mg/Kg	☼	02/25/16 09:30	02/26/16 17:22	1
Zinc	39		1.0	0.32	mg/Kg	☼	02/25/16 09:30	02/26/16 17:22	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.39	J	0.50	0.050	mg/L		02/23/16 16:01	02/26/16 23:52	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/26/16 23:52	1
Boron	0.72		0.50	0.050	mg/L		02/23/16 16:01	02/26/16 23:52	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B09 (0-1)

Lab Sample ID: 500-107703-11

Date Collected: 02/17/16 10:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/26/16 23:52	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:52	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:52	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/26/16 23:52	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/23/16 16:01	02/26/16 23:52	1
Manganese	0.80		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:52	1
Nickel	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:52	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/26/16 23:52	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:52	1
Zinc	0.60	B	0.50	0.020	mg/L		02/23/16 16:01	02/26/16 23:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.15		0.025	0.010	mg/L		02/23/16 16:10	02/27/16 21:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 17:47	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 17:47	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:27	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.018	0.0093	mg/Kg	☼	02/23/16 15:15	02/24/16 14:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.30		0.200	0.200	SU			02/23/16 12:01	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B07 (0-1)

Lab Sample ID: 500-107703-12

Date Collected: 02/17/16 10:15

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 90.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.28		0.28	0.097	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Benzene	<0.014		0.014	0.0082	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Bromodichloromethane	<0.056		0.056	0.021	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Bromoform	<0.056		0.056	0.027	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Bromomethane	<0.11		0.11	0.045	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
2-Butanone (MEK)	<0.28		0.28	0.12	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Carbon disulfide	<0.11		0.11	0.045	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Carbon tetrachloride	<0.056		0.056	0.021	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Chlorobenzene	<0.056		0.056	0.022	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Chloroethane	<0.056		0.056	0.028	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Chloroform	<0.056		0.056	0.021	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Chloromethane	<0.056		0.056	0.018	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
cis-1,2-Dichloroethene	<0.056		0.056	0.023	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
cis-1,3-Dichloropropene	<0.056		0.056	0.023	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Dibromochloromethane	<0.056		0.056	0.027	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
1,1-Dichloroethane	<0.056		0.056	0.023	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
1,2-Dichloroethane	<0.056		0.056	0.022	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
1,1-Dichloroethene	<0.056		0.056	0.022	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
1,2-Dichloropropane	<0.056		0.056	0.024	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
1,3-Dichloropropane, Total	<0.056		0.056	0.023	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Ethylbenzene	<0.014		0.014	0.010	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
2-Hexanone	<0.28		0.28	0.087	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Methylene Chloride	<0.28		0.28	0.091	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
4-Methyl-2-pentanone (MIBK)	<0.28		0.28	0.12	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Methyl tert-butyl ether	0.040	J	0.056	0.022	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Styrene	<0.056		0.056	0.022	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
1,1,2,2-Tetrachloroethane	<0.056		0.056	0.022	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Tetrachloroethene	<0.056		0.056	0.021	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Toluene	<0.014		0.014	0.0082	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
trans-1,2-Dichloroethene	<0.056		0.056	0.020	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
trans-1,3-Dichloropropene	<0.056		0.056	0.020	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
1,1,1-Trichloroethane	<0.056		0.056	0.021	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
1,1,2-Trichloroethane	<0.056		0.056	0.020	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Trichloroethene	<0.028		0.028	0.0092	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Vinyl acetate	<0.11		0.11	0.051	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Vinyl chloride	<0.028		0.028	0.015	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50
Xylenes, Total	<0.028		0.028	0.012	mg/Kg	☼	02/17/16 10:15	03/01/16 13:16	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		75 - 120	02/17/16 10:15	03/01/16 13:16	50
Dibromofluoromethane	89		75 - 120	02/17/16 10:15	03/01/16 13:16	50
1,2-Dichloroethane-d4 (Surr)	86		75 - 125	02/17/16 10:15	03/01/16 13:16	50
Toluene-d8 (Surr)	95		75 - 120	02/17/16 10:15	03/01/16 13:16	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.077	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Bis(2-chloroethyl)ether	<0.18	*	0.18	0.052	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
1,3-Dichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B07 (0-1)

Lab Sample ID: 500-107703-12

Date Collected: 02/17/16 10:15

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 90.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
2-Methylphenol	<0.18		0.18	0.056	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.040	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
N-Nitrosodi-n-propylamine	<0.070		0.070	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Hexachloroethane	<0.18		0.18	0.053	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Nitrobenzene	<0.035		0.035	0.0087	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Isophorone	<0.18		0.18	0.039	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
2,4-Dichlorophenol	<0.35		0.35	0.083	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
4-Chloroaniline	<0.70		0.70	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
2,4,5-Trichlorophenol	<0.35		0.35	0.080	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Hexachlorocyclopentadiene	<0.70		0.70	0.20	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
2-Methylnaphthalene	<0.035		0.035	0.0064	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
2-Nitrophenol	<0.35		0.35	0.082	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
2,4-Dinitrophenol	<0.70		0.70	0.61	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Acenaphthylene	<0.035		0.035	0.0046	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
2,4-Dinitrotoluene	<0.18		0.18	0.055	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Acenaphthene	<0.035		0.035	0.0063	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
4-Nitrophenol	<0.70		0.70	0.33	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Fluorene	<0.035		0.035	0.0049	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Hexachlorobenzene	<0.070		0.070	0.0081	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Diethyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Pentachlorophenol	<0.70		0.70	0.56	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
N-Nitrosodiphenylamine	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
4,6-Dinitro-2-methylphenol	<0.70		0.70	0.28	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Phenanthrene	0.083		0.035	0.0049	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Anthracene	0.016 J		0.035	0.0058	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Carbazole	<0.18		0.18	0.087	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Di-n-butyl phthalate	<0.18		0.18	0.053	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Fluoranthene	0.12		0.035	0.0065	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Pyrene	0.24		0.035	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Butyl benzyl phthalate	<0.18		0.18	0.066	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Benzo[a]anthracene	0.066		0.035	0.0047	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B07 (0-1)

Lab Sample ID: 500-107703-12

Date Collected: 02/17/16 10:15

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 90.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.082		0.035	0.0095	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.064	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Di-n-octyl phthalate	<0.18		0.18	0.057	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Benzo[b]fluoranthene	0.13		0.035	0.0075	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Benzo[k]fluoranthene	0.053		0.035	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Benzo[a]pyrene	0.082		0.035	0.0068	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Indeno[1,2,3-cd]pyrene	0.078		0.035	0.0090	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0067	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
Benzo[g,h,i]perylene	0.093		0.035	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1
3 & 4 Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 20:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	87		25 - 110	02/23/16 07:13	02/28/16 20:43	1
Phenol-d5	65		31 - 110	02/23/16 07:13	02/28/16 20:43	1
Nitrobenzene-d5	84		25 - 115	02/23/16 07:13	02/28/16 20:43	1
2-Fluorobiphenyl	77		25 - 119	02/23/16 07:13	02/28/16 20:43	1
2,4,6-Tribromophenol	97		35 - 137	02/23/16 07:13	02/28/16 20:43	1
Terphenyl-d14	198 X		36 - 134	02/23/16 07:13	02/28/16 20:43	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.81		0.81	0.17	mg/Kg	☼	02/25/16 09:30	02/26/16 17:28	1
Arsenic	1.3		0.40	0.19	mg/Kg	☼	02/25/16 09:30	02/26/16 17:28	1
Barium	12		0.40	0.074	mg/Kg	☼	02/25/16 09:30	02/26/16 17:28	1
Beryllium	0.069	J	0.16	0.035	mg/Kg	☼	02/25/16 09:30	02/26/16 17:28	1
Boron	9.9		2.0	0.28	mg/Kg	☼	02/25/16 09:30	02/26/16 17:28	1
Cadmium	0.025	J	0.081	0.023	mg/Kg	☼	02/25/16 09:30	02/26/16 17:28	1
Calcium	190000	B	81	26	mg/Kg	☼	02/25/16 09:30	02/27/16 23:22	10
Chromium	7.1	B	0.40	0.070	mg/Kg	☼	02/25/16 09:30	02/26/16 17:28	1
Cobalt	1.7		0.20	0.046	mg/Kg	☼	02/25/16 09:30	02/26/16 17:28	1
Copper	7.0		0.40	0.088	mg/Kg	☼	02/25/16 09:30	02/26/16 17:28	1
Iron	3800		8.1	3.1	mg/Kg	☼	02/25/16 09:30	02/26/16 17:28	1
Lead	22		0.20	0.10	mg/Kg	☼	02/25/16 09:30	02/26/16 17:28	1
Magnesium	120000		40	16	mg/Kg	☼	02/25/16 09:30	02/27/16 23:22	10
Manganese	190	B	0.40	0.080	mg/Kg	☼	02/25/16 09:30	02/28/16 00:56	1
Nickel	4.6		0.40	0.11	mg/Kg	☼	02/25/16 09:30	02/26/16 17:28	1
Potassium	530		20	3.3	mg/Kg	☼	02/25/16 09:30	02/26/16 17:28	1
Selenium	0.25	J	0.40	0.20	mg/Kg	☼	02/25/16 09:30	02/26/16 17:28	1
Silver	<0.20		0.20	0.047	mg/Kg	☼	02/25/16 09:30	02/26/16 17:28	1
Sodium	550		40	5.3	mg/Kg	☼	02/25/16 09:30	02/26/16 17:28	1
Thallium	<0.40		0.40	0.20	mg/Kg	☼	02/25/16 09:30	02/26/16 17:28	1
Vanadium	6.1		0.20	0.059	mg/Kg	☼	02/25/16 09:30	02/26/16 17:28	1
Zinc	17		0.81	0.26	mg/Kg	☼	02/25/16 09:30	02/26/16 17:28	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.23	J	0.50	0.050	mg/L		02/23/16 16:01	02/26/16 23:58	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/26/16 23:58	1
Boron	0.55		0.50	0.050	mg/L		02/23/16 16:01	02/26/16 23:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B07 (0-1)

Lab Sample ID: 500-107703-12

Date Collected: 02/17/16 10:15

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 90.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/26/16 23:58	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:58	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:58	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/26/16 23:58	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/23/16 16:01	02/26/16 23:58	1
Manganese	1.4		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:58	1
Nickel	0.015	J	0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:58	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/26/16 23:58	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:58	1
Zinc	0.11	J B	0.50	0.020	mg/L		02/23/16 16:01	02/26/16 23:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		02/23/16 16:10	02/27/16 21:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 17:51	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 17:51	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:29	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0091	mg/Kg	☼	02/23/16 15:15	02/24/16 14:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.34		0.200	0.200	SU			02/23/16 12:07	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B05 (0-1)

Lab Sample ID: 500-107703-13

Date Collected: 02/17/16 10:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 83.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0034	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Benzene	<0.0044		0.0044	0.00099	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Bromodichloromethane	<0.0044		0.0044	0.00075	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Bromoform	<0.0044		0.0044	0.00091	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Bromomethane	<0.0044		0.0044	0.0016	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
2-Butanone (MEK)	<0.0044		0.0044	0.0016	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Carbon disulfide	<0.0044		0.0044	0.0016	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Carbon tetrachloride	<0.0044		0.0044	0.00095	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Chlorobenzene	<0.0044		0.0044	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Chloroethane	<0.0044		0.0044	0.0019	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Chloroform	<0.0044		0.0044	0.00087	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Chloromethane	<0.0044		0.0044	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
cis-1,2-Dichloroethene	<0.0044		0.0044	0.00091	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
cis-1,3-Dichloropropene	<0.0044		0.0044	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Dibromochloromethane	<0.0044		0.0044	0.00051	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
1,1-Dichloroethane	<0.0044		0.0044	0.00091	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
1,2-Dichloroethane	<0.0044		0.0044	0.00066	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
1,1-Dichloroethene	<0.0044		0.0044	0.0016	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
1,2-Dichloropropane	<0.0044		0.0044	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
1,3-Dichloropropane, Total	<0.0044		0.0044	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Ethylbenzene	<0.0044		0.0044	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Methylene Chloride	<0.0044		0.0044	0.0034	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.00091	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Methyl tert-butyl ether	<0.0044		0.0044	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Styrene	<0.0044		0.0044	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
1,1,2,2-Tetrachloroethane	<0.0044		0.0044	0.00070	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Tetrachloroethene	<0.0044		0.0044	0.00092	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Toluene	<0.0044		0.0044	0.0015	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
trans-1,2-Dichloroethene	<0.0044		0.0044	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
trans-1,3-Dichloropropene	<0.0044		0.0044	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
1,1,1-Trichloroethane	<0.0044		0.0044	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
1,1,2-Trichloroethane	<0.0044		0.0044	0.00086	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Trichloroethene	<0.0044		0.0044	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Vinyl acetate	<0.0044	*	0.0044	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Vinyl chloride	<0.0044		0.0044	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1
Xylenes, Total	<0.0089		0.0089	0.0016	mg/Kg	☼	02/18/16 08:10	02/26/16 16:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 122	02/18/16 08:10	02/26/16 16:50	1
Dibromofluoromethane	94		75 - 120	02/18/16 08:10	02/26/16 16:50	1
1,2-Dichloroethane-d4 (Surr)	86		70 - 134	02/18/16 08:10	02/26/16 16:50	1
Toluene-d8 (Surr)	107		75 - 122	02/18/16 08:10	02/26/16 16:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.057	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B05 (0-1)

Lab Sample ID: 500-107703-13

Date Collected: 02/17/16 10:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 83.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
2-Methylnaphthalene	<0.038		0.038	0.0070	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Acenaphthylene	0.0072	J	0.038	0.0050	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Phenanthrene	0.095		0.038	0.0053	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Anthracene	0.015	J	0.038	0.0064	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Fluoranthene	0.13		0.038	0.0070	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Pyrene	0.28		0.038	0.0076	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Benzo[a]anthracene	0.074		0.038	0.0051	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B05 (0-1)

Lab Sample ID: 500-107703-13

Date Collected: 02/17/16 10:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 83.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.11		0.038	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Benzo[b]fluoranthene	0.17		0.038	0.0082	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Benzo[k]fluoranthene	0.058		0.038	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Benzo[a]pyrene	0.094		0.038	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Indeno[1,2,3-cd]pyrene	0.10		0.038	0.0099	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
Benzo[g,h,i]perylene	0.12		0.038	0.012	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 21:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	83		25 - 110	02/23/16 07:13	02/28/16 21:11	1
Phenol-d5	75		31 - 110	02/23/16 07:13	02/28/16 21:11	1
Nitrobenzene-d5	81		25 - 115	02/23/16 07:13	02/28/16 21:11	1
2-Fluorobiphenyl	75		25 - 119	02/23/16 07:13	02/28/16 21:11	1
2,4,6-Tribromophenol	94		35 - 137	02/23/16 07:13	02/28/16 21:11	1
Terphenyl-d14	201	X	36 - 134	02/23/16 07:13	02/28/16 21:11	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.97		0.97	0.20	mg/Kg	☼	02/25/16 09:30	02/26/16 17:33	1
Arsenic	3.0		0.49	0.23	mg/Kg	☼	02/25/16 09:30	02/26/16 17:33	1
Barium	20		0.49	0.089	mg/Kg	☼	02/25/16 09:30	02/26/16 17:33	1
Beryllium	0.16	J	0.19	0.042	mg/Kg	☼	02/25/16 09:30	02/26/16 17:33	1
Boron	9.3		2.4	0.34	mg/Kg	☼	02/25/16 09:30	02/26/16 17:33	1
Cadmium	0.085	J	0.097	0.028	mg/Kg	☼	02/25/16 09:30	02/26/16 17:33	1
Calcium	150000	B	97	31	mg/Kg	☼	02/25/16 09:30	02/27/16 23:27	10
Chromium	13	B	0.49	0.084	mg/Kg	☼	02/25/16 09:30	02/26/16 17:33	1
Cobalt	2.8		0.24	0.055	mg/Kg	☼	02/25/16 09:30	02/26/16 17:33	1
Copper	9.5		0.49	0.11	mg/Kg	☼	02/25/16 09:30	02/26/16 17:33	1
Iron	7200		9.7	3.8	mg/Kg	☼	02/25/16 09:30	02/26/16 17:33	1
Lead	65		0.24	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 17:33	1
Magnesium	89000		49	20	mg/Kg	☼	02/25/16 09:30	02/27/16 23:27	10
Manganese	250	B	0.49	0.096	mg/Kg	☼	02/25/16 09:30	02/28/16 01:01	1
Nickel	7.2		0.49	0.13	mg/Kg	☼	02/25/16 09:30	02/26/16 17:33	1
Potassium	610		24	4.0	mg/Kg	☼	02/25/16 09:30	02/26/16 17:33	1
Selenium	<0.49		0.49	0.24	mg/Kg	☼	02/25/16 09:30	02/26/16 17:33	1
Silver	0.097	J	0.24	0.057	mg/Kg	☼	02/25/16 09:30	02/26/16 17:33	1
Sodium	1100		49	6.4	mg/Kg	☼	02/25/16 09:30	02/26/16 17:33	1
Thallium	<0.49		0.49	0.24	mg/Kg	☼	02/25/16 09:30	02/26/16 17:33	1
Vanadium	9.4		0.24	0.071	mg/Kg	☼	02/25/16 09:30	02/26/16 17:33	1
Zinc	41		0.97	0.31	mg/Kg	☼	02/25/16 09:30	02/26/16 17:33	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.26	J	0.50	0.050	mg/L		02/23/16 16:01	02/27/16 00:05	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/27/16 00:05	1
Boron	0.88		0.50	0.050	mg/L		02/23/16 16:01	02/27/16 00:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B05 (0-1)

Lab Sample ID: 500-107703-13

Date Collected: 02/17/16 10:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 83.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/27/16 00:05	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:05	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:05	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/27/16 00:05	1
Lead	0.0077		0.0075	0.0075	mg/L		02/23/16 16:01	02/27/16 00:05	1
Manganese	1.2		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:05	1
Nickel	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:05	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/27/16 00:05	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:05	1
Zinc	0.18	J B	0.50	0.020	mg/L		02/23/16 16:01	02/27/16 00:05	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.14		0.0075	0.0075	mg/L		02/23/16 16:10	02/27/16 21:59	1
Manganese	0.31		0.025	0.010	mg/L		02/23/16 16:10	02/27/16 21:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 17:55	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 17:55	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:31	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.033		0.020	0.010	mg/Kg	☼	02/23/16 15:15	02/24/16 14:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.61		0.200	0.200	SU			02/23/16 12:12	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B02 (0-1)

Lab Sample ID: 500-107703-14

Date Collected: 02/17/16 10:40

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0037	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Benzene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Bromodichloromethane	<0.0048		0.0048	0.00082	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Bromoform	<0.0048		0.0048	0.00099	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
2-Butanone (MEK)	<0.0048		0.0048	0.0017	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Carbon disulfide	<0.0048		0.0048	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Carbon tetrachloride	<0.0048		0.0048	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Chlorobenzene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Chloroethane	<0.0048		0.0048	0.0020	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Chloroform	<0.0048		0.0048	0.00094	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Chloromethane	<0.0048		0.0048	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
cis-1,2-Dichloroethene	<0.0048		0.0048	0.00099	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
cis-1,3-Dichloropropene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Dibromochloromethane	<0.0048		0.0048	0.00056	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
1,1-Dichloroethane	<0.0048		0.0048	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
1,2-Dichloroethane	<0.0048		0.0048	0.00072	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
1,1-Dichloroethene	<0.0048		0.0048	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
1,2-Dichloropropane	<0.0048		0.0048	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
1,3-Dichloropropene, Total	<0.0048		0.0048	0.0014	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Ethylbenzene	<0.0048		0.0048	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Methylene Chloride	<0.0048		0.0048	0.0037	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Methyl tert-butyl ether	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Styrene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
1,1,2,2-Tetrachloroethane	<0.0048		0.0048	0.00077	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Tetrachloroethene	<0.0048		0.0048	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Toluene	<0.0048		0.0048	0.0017	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
trans-1,2-Dichloroethene	<0.0048		0.0048	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
trans-1,3-Dichloropropene	<0.0048		0.0048	0.0014	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
1,1,1-Trichloroethane	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
1,1,2-Trichloroethane	<0.0048		0.0048	0.00094	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Trichloroethene	<0.0048		0.0048	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Vinyl acetate	<0.0048 *		0.0048	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Vinyl chloride	<0.0048		0.0048	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1
Xylenes, Total	<0.0097		0.0097	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 17:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 122	02/18/16 08:10	02/26/16 17:16	1
Dibromofluoromethane	95		75 - 120	02/18/16 08:10	02/26/16 17:16	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 134	02/18/16 08:10	02/26/16 17:16	1
Toluene-d8 (Surr)	106		75 - 122	02/18/16 08:10	02/26/16 17:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Bis(2-chloroethyl)ether	<0.19 *		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B02 (0-1)

Lab Sample ID: 500-107703-14

Date Collected: 02/17/16 10:40

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
2-Methylnaphthalene	<0.038		0.038	0.0071	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Acenaphthylene	0.0072	J	0.038	0.0051	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Phenanthrene	0.092		0.038	0.0054	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Anthracene	0.015	J	0.038	0.0064	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Fluoranthene	0.11		0.038	0.0071	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Pyrene	0.25		0.038	0.0076	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Benzo[a]anthracene	0.066		0.038	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B02 (0-1)

Lab Sample ID: 500-107703-14

Date Collected: 02/17/16 10:40

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.094		0.038	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Benzo[b]fluoranthene	0.13		0.038	0.0083	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Benzo[k]fluoranthene	0.053		0.038	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Benzo[a]pyrene	0.094		0.038	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Indeno[1,2,3-cd]pyrene	0.088		0.038	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
Benzo[g,h,i]perylene	0.12		0.038	0.012	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:13	02/28/16 21:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	90		25 - 110	02/23/16 07:13	02/28/16 21:40	1
Phenol-d5	86		31 - 110	02/23/16 07:13	02/28/16 21:40	1
Nitrobenzene-d5	89		25 - 115	02/23/16 07:13	02/28/16 21:40	1
2-Fluorobiphenyl	81		25 - 119	02/23/16 07:13	02/28/16 21:40	1
2,4,6-Tribromophenol	91		35 - 137	02/23/16 07:13	02/28/16 21:40	1
Terphenyl-d14	195	X	36 - 134	02/23/16 07:13	02/28/16 21:40	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	☼	02/25/16 09:30	02/26/16 17:38	1
Arsenic	2.9		0.56	0.26	mg/Kg	☼	02/25/16 09:30	02/26/16 17:38	1
Barium	33		0.56	0.10	mg/Kg	☼	02/25/16 09:30	02/26/16 17:38	1
Beryllium	0.22		0.22	0.048	mg/Kg	☼	02/25/16 09:30	02/26/16 17:38	1
Boron	5.7		2.8	0.39	mg/Kg	☼	02/25/16 09:30	02/26/16 17:38	1
Cadmium	0.12		0.11	0.032	mg/Kg	☼	02/25/16 09:30	02/26/16 17:38	1
Calcium	110000	B	110	36	mg/Kg	☼	02/25/16 09:30	02/27/16 23:31	10
Chromium	15	B	0.56	0.096	mg/Kg	☼	02/25/16 09:30	02/26/16 17:38	1
Cobalt	3.9		0.28	0.063	mg/Kg	☼	02/25/16 09:30	02/26/16 17:38	1
Copper	11		0.56	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 17:38	1
Iron	7800		11	4.3	mg/Kg	☼	02/25/16 09:30	02/26/16 17:38	1
Lead	89		0.28	0.14	mg/Kg	☼	02/25/16 09:30	02/26/16 17:38	1
Magnesium	45000		5.6	2.3	mg/Kg	☼	02/25/16 09:30	02/26/16 17:38	1
Manganese	270	B	0.56	0.11	mg/Kg	☼	02/25/16 09:30	02/28/16 01:07	1
Nickel	9.7		0.56	0.15	mg/Kg	☼	02/25/16 09:30	02/26/16 17:38	1
Potassium	640		28	4.5	mg/Kg	☼	02/25/16 09:30	02/26/16 17:38	1
Selenium	<0.56		0.56	0.28	mg/Kg	☼	02/25/16 09:30	02/26/16 17:38	1
Silver	<0.28		0.28	0.065	mg/Kg	☼	02/25/16 09:30	02/26/16 17:38	1
Sodium	1000		56	7.3	mg/Kg	☼	02/25/16 09:30	02/26/16 17:38	1
Thallium	<0.56		0.56	0.27	mg/Kg	☼	02/25/16 09:30	02/26/16 17:38	1
Vanadium	12		0.28	0.081	mg/Kg	☼	02/25/16 09:30	02/26/16 17:38	1
Zinc	39		1.1	0.35	mg/Kg	☼	02/25/16 09:30	02/26/16 17:38	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.45	J	0.50	0.050	mg/L		02/23/16 16:01	02/27/16 00:12	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/27/16 00:12	1
Boron	0.74		0.50	0.050	mg/L		02/23/16 16:01	02/27/16 00:12	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B02 (0-1)

Lab Sample ID: 500-107703-14

Date Collected: 02/17/16 10:40

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/27/16 00:12	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:12	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:12	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/27/16 00:12	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/23/16 16:01	02/27/16 00:12	1
Manganese	0.71		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:12	1
Nickel	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:12	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/27/16 00:12	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:12	1
Zinc	0.34	J B	0.50	0.020	mg/L		02/23/16 16:01	02/27/16 00:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.63		0.025	0.010	mg/L		02/23/16 16:10	02/27/16 22:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 17:59	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 17:59	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:32	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016	J	0.019	0.010	mg/Kg	☼	02/23/16 15:15	02/24/16 14:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.68		0.200	0.200	SU			02/23/16 12:17	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)

Lab Sample ID: 500-107703-15

Date Collected: 02/17/16 13:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0038	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Benzene	<0.0050		0.0050	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Bromodichloromethane	<0.0050		0.0050	0.00084	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Bromoform	<0.0050		0.0050	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Bromomethane	<0.0050		0.0050	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
2-Butanone (MEK)	<0.0050		0.0050	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Carbon disulfide	<0.0050		0.0050	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Carbon tetrachloride	<0.0050		0.0050	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Chlorobenzene	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Chloroethane	<0.0050		0.0050	0.0021	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Chloroform	<0.0050		0.0050	0.00097	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Chloromethane	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
cis-1,2-Dichloroethene	<0.0050		0.0050	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
cis-1,3-Dichloropropene	<0.0050		0.0050	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Dibromochloromethane	<0.0050		0.0050	0.00057	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
1,1-Dichloroethane	<0.0050		0.0050	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
1,2-Dichloroethane	<0.0050		0.0050	0.00074	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
1,1-Dichloroethene	<0.0050		0.0050	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
1,2-Dichloropropane	<0.0050		0.0050	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
1,3-Dichloropropane, Total	<0.0050		0.0050	0.0014	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Ethylbenzene	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
2-Hexanone	<0.0050		0.0050	0.0015	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Methylene Chloride	<0.0050		0.0050	0.0038	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Methyl tert-butyl ether	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Styrene	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
1,1,2,2-Tetrachloroethane	<0.0050		0.0050	0.00079	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Tetrachloroethene	<0.0050		0.0050	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Toluene	<0.0050		0.0050	0.0017	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
trans-1,2-Dichloroethene	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
trans-1,3-Dichloropropene	<0.0050		0.0050	0.0014	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
1,1,1-Trichloroethane	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
1,1,2-Trichloroethane	<0.0050		0.0050	0.00096	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Trichloroethene	<0.0050		0.0050	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Vinyl acetate	<0.0050	*	0.0050	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Vinyl chloride	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1
Xylenes, Total	<0.0099		0.0099	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 17:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 122	02/18/16 08:10	02/26/16 17:41	1
Dibromofluoromethane	100		75 - 120	02/18/16 08:10	02/26/16 17:41	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 134	02/18/16 08:10	02/26/16 17:41	1
Toluene-d8 (Surr)	106		75 - 122	02/18/16 08:10	02/26/16 17:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.055	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)

Lab Sample ID: 500-107703-15

Date Collected: 02/17/16 13:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2-Methylnaphthalene	<0.037		0.037	0.0068	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Acenaphthylene	0.012	J	0.037	0.0049	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Acenaphthene	0.0069	J	0.037	0.0066	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Fluorene	0.0084	J	0.037	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Pentachlorophenol	<0.75		0.75	0.59	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Phenanthrene	0.17		0.037	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Anthracene	0.028	J	0.037	0.0062	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Carbazole	<0.19		0.19	0.092	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Fluoranthene	0.25		0.037	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Pyrene	0.53		0.037	0.0073	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Benzo[a]anthracene	0.16		0.037	0.0050	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)

Lab Sample ID: 500-107703-15

Date Collected: 02/17/16 13:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.18		0.037	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Benzo[b]fluoranthene	0.28		0.037	0.0080	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Benzo[k]fluoranthene	0.11		0.037	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Benzo[a]pyrene	0.18		0.037	0.0072	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Indeno[1,2,3-cd]pyrene	0.16		0.037	0.0096	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0071	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
Benzo[g,h,i]perylene	0.20		0.037	0.012	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 22:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	91		25 - 110	02/23/16 07:13	02/28/16 22:09	1
Phenol-d5	98		31 - 110	02/23/16 07:13	02/28/16 22:09	1
Nitrobenzene-d5	92		25 - 115	02/23/16 07:13	02/28/16 22:09	1
2-Fluorobiphenyl	84		25 - 119	02/23/16 07:13	02/28/16 22:09	1
2,4,6-Tribromophenol	88		35 - 137	02/23/16 07:13	02/28/16 22:09	1
Terphenyl-d14	204	X	36 - 134	02/23/16 07:13	02/28/16 22:09	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.95		0.95	0.20	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Arsenic	5.6		0.47	0.22	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Barium	61		0.47	0.087	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Beryllium	0.35		0.19	0.041	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Boron	5.2		2.4	0.33	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Cadmium	0.082	J	0.095	0.027	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Calcium	50000	B	95	31	mg/Kg	☼	02/25/16 09:30	02/27/16 23:35	10
Chromium	11	B	0.47	0.081	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Cobalt	6.6		0.24	0.054	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Copper	13		0.47	0.10	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Iron	11000		9.5	3.7	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Lead	36		0.24	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Magnesium	22000		4.7	1.9	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Manganese	390	B	0.47	0.094	mg/Kg	☼	02/25/16 09:30	02/28/16 01:12	1
Nickel	15		0.47	0.13	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Potassium	910		24	3.9	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Selenium	0.28	J	0.47	0.23	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Silver	<0.24		0.24	0.055	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Sodium	1500		47	6.3	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Thallium	<0.47		0.47	0.23	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Vanadium	19		0.24	0.069	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1
Zinc	59		0.95	0.30	mg/Kg	☼	02/25/16 09:30	02/26/16 17:43	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.49	J	0.50	0.050	mg/L		02/23/16 16:01	02/27/16 00:19	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/27/16 00:19	1
Boron	0.58		0.50	0.050	mg/L		02/23/16 16:01	02/27/16 00:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)

Lab Sample ID: 500-107703-15

Date Collected: 02/17/16 13:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/27/16 00:19	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:19	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:19	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/27/16 00:19	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/23/16 16:01	02/27/16 00:19	1
Manganese	1.1		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:19	1
Nickel	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:19	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/27/16 00:19	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:19	1
Zinc	0.090	J B	0.50	0.020	mg/L		02/23/16 16:01	02/27/16 00:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.99		0.025	0.010	mg/L		02/23/16 16:10	02/27/16 22:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 18:03	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 18:03	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:34	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017		0.016	0.0085	mg/Kg	☼	02/23/16 15:15	02/24/16 14:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.55		0.200	0.200	SU			02/23/16 12:22	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)D

Lab Sample ID: 500-107703-16

Date Collected: 02/17/16 13:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0037	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Benzene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Bromodichloromethane	<0.0048		0.0048	0.00081	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Bromoform	<0.0048		0.0048	0.00097	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
2-Butanone (MEK)	<0.0048		0.0048	0.0017	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Carbon disulfide	<0.0048		0.0048	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Carbon tetrachloride	<0.0048		0.0048	0.0010	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Chlorobenzene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Chloroethane	<0.0048		0.0048	0.0020	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Chloroform	<0.0048		0.0048	0.00093	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Chloromethane	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
cis-1,2-Dichloroethene	<0.0048		0.0048	0.00097	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
cis-1,3-Dichloropropene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Dibromochloromethane	<0.0048		0.0048	0.00055	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
1,1-Dichloroethane	<0.0048		0.0048	0.00098	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
1,2-Dichloroethane	<0.0048		0.0048	0.00071	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
1,1-Dichloroethene	<0.0048		0.0048	0.0017	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
1,2-Dichloropropane	<0.0048		0.0048	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
1,3-Dichloropropane, Total	<0.0048		0.0048	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Ethylbenzene	<0.0048		0.0048	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Methylene Chloride	<0.0048		0.0048	0.0036	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.00098	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Methyl tert-butyl ether	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Styrene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
1,1,1,2-Tetrachloroethane	<0.0048		0.0048	0.00076	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Tetrachloroethene	<0.0048		0.0048	0.00099	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Toluene	<0.0048		0.0048	0.0017	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
trans-1,2-Dichloroethene	<0.0048		0.0048	0.0012	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
trans-1,3-Dichloropropene	<0.0048		0.0048	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
1,1,1-Trichloroethane	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
1,1,2-Trichloroethane	<0.0048		0.0048	0.00093	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Trichloroethene	<0.0048		0.0048	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Vinyl acetate	<0.0048 *		0.0048	0.0013	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Vinyl chloride	<0.0048		0.0048	0.0011	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1
Xylenes, Total	<0.0096		0.0096	0.0018	mg/Kg	☼	02/18/16 08:10	02/26/16 18:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 122	02/18/16 08:10	02/26/16 18:07	1
Dibromofluoromethane	95		75 - 120	02/18/16 08:10	02/26/16 18:07	1
1,2-Dichloroethane-d4 (Surr)	87		70 - 134	02/18/16 08:10	02/26/16 18:07	1
Toluene-d8 (Surr)	108		75 - 122	02/18/16 08:10	02/26/16 18:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Bis(2-chloroethyl)ether	<0.19 *		0.19	0.057	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)D

Lab Sample ID: 500-107703-16

Date Collected: 02/17/16 13:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Naphthalene	0.010	J	0.038	0.0058	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2,4,5-Trichlorophenol	<0.38		0.38	0.086	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2-Methylnaphthalene	<0.038		0.038	0.0070	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2-Nitrophenol	<0.38		0.38	0.089	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2,4-Dinitrophenol	<0.76		0.76	0.67	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Acenaphthylene	0.018	J	0.038	0.0050	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Phenanthrene	0.18		0.038	0.0053	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Anthracene	0.024	J	0.038	0.0063	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Fluoranthene	0.24		0.038	0.0070	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Pyrene	0.53		0.038	0.0075	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Benzo[a]anthracene	0.15		0.038	0.0051	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)D

Lab Sample ID: 500-107703-16

Date Collected: 02/17/16 13:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.18		0.038	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Benzo[b]fluoranthene	0.29		0.038	0.0082	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Benzo[k]fluoranthene	0.082		0.038	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Benzo[a]pyrene	0.17		0.038	0.0073	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Indeno[1,2,3-cd]pyrene	0.17		0.038	0.0098	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Dibenz(a,h)anthracene	0.052		0.038	0.0073	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
Benzo[g,h,i]perylene	0.20		0.038	0.012	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 22:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	101		25 - 110	02/23/16 07:13	02/28/16 22:38	1
Phenol-d5	88		31 - 110	02/23/16 07:13	02/28/16 22:38	1
Nitrobenzene-d5	96		25 - 115	02/23/16 07:13	02/28/16 22:38	1
2-Fluorobiphenyl	90		25 - 119	02/23/16 07:13	02/28/16 22:38	1
2,4,6-Tribromophenol	97		35 - 137	02/23/16 07:13	02/28/16 22:38	1
Terphenyl-d14	220	X	36 - 134	02/23/16 07:13	02/28/16 22:38	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.21	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Arsenic	4.9		0.50	0.23	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Barium	74		0.50	0.091	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Beryllium	0.35		0.20	0.043	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Boron	7.1		2.5	0.35	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Cadmium	0.13		0.10	0.029	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Calcium	89000	B	100	32	mg/Kg	☼	02/25/16 09:30	02/27/16 23:39	10
Chromium	12	B	0.50	0.086	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Cobalt	5.9		0.25	0.056	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Copper	16		0.50	0.11	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Iron	10000		10	3.8	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Lead	44		0.25	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Magnesium	32000		5.0	2.0	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Manganese	360	B	0.50	0.099	mg/Kg	☼	02/25/16 09:30	02/28/16 01:17	1
Nickel	13		0.50	0.13	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Potassium	810		25	4.1	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Selenium	<0.50		0.50	0.25	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Silver	<0.25		0.25	0.058	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Sodium	1300		50	6.6	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Thallium	<0.50		0.50	0.25	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Vanadium	18		0.25	0.073	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1
Zinc	66		1.0	0.32	mg/Kg	☼	02/25/16 09:30	02/26/16 17:48	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.53		0.50	0.050	mg/L		02/23/16 16:01	02/27/16 00:25	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/27/16 00:25	1
Boron	0.63		0.50	0.050	mg/L		02/23/16 16:01	02/27/16 00:25	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B01 (0-1)D

Lab Sample ID: 500-107703-16

Date Collected: 02/17/16 13:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/27/16 00:25	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:25	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:25	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/27/16 00:25	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/23/16 16:01	02/27/16 00:25	1
Manganese	0.81		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:25	1
Nickel	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:25	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/27/16 00:25	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:25	1
Zinc	0.15	J B	0.50	0.020	mg/L		02/23/16 16:01	02/27/16 00:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.3		0.025	0.010	mg/L		02/23/16 16:10	02/27/16 22:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 18:08	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 18:08	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:40	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.020	0.010	mg/Kg	☼	02/23/16 15:15	02/24/16 14:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.61		0.200	0.200	SU			02/23/16 12:27	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B03 (0-1)

Lab Sample ID: 500-107703-17

Date Collected: 02/17/16 13:30

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0035	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Benzene	<0.0045		0.0045	0.00099	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Bromodichloromethane	<0.0045		0.0045	0.00075	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Bromoform	<0.0045		0.0045	0.00091	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Bromomethane	<0.0045		0.0045	0.0016	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Carbon disulfide	<0.0045		0.0045	0.0016	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Carbon tetrachloride	<0.0045		0.0045	0.00096	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Chloroethane	<0.0045		0.0045	0.0019	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Chloroform	<0.0045		0.0045	0.00087	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00091	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Dibromochloromethane	<0.0045		0.0045	0.00051	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
1,1-Dichloroethane	<0.0045		0.0045	0.00092	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
1,2-Dichloroethane	<0.0045		0.0045	0.00066	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
1,1-Dichloroethene	<0.0045		0.0045	0.0016	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Methylene Chloride	<0.0045		0.0045	0.0034	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00092	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Styrene	<0.0045		0.0045	0.0010	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
1,1,2,2-Tetrachloroethane	<0.0045		0.0045	0.00071	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Tetrachloroethene	<0.0045		0.0045	0.00093	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0010	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00087	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Vinyl acetate	<0.0045	*	0.0045	0.0012	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1
Xylenes, Total	<0.0089		0.0089	0.0017	mg/Kg	☼	02/18/16 08:10	02/29/16 22:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 122	02/18/16 08:10	02/29/16 22:21	1
Dibromofluoromethane	107		75 - 120	02/18/16 08:10	02/29/16 22:21	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 134	02/18/16 08:10	02/29/16 22:21	1
Toluene-d8 (Surr)	109		75 - 122	02/18/16 08:10	02/29/16 22:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.083	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.056	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B03 (0-1)

Lab Sample ID: 500-107703-17

Date Collected: 02/17/16 13:30

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
2-Methylnaphthalene	<0.037		0.037	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Phenanthrene	0.11		0.037	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Anthracene	0.015 J		0.037	0.0063	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Fluoranthene	0.12		0.037	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Pyrene	0.25		0.037	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Benzo[a]anthracene	0.065		0.037	0.0050	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B03 (0-1)

Lab Sample ID: 500-107703-17

Date Collected: 02/17/16 13:30

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.087		0.037	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Bis(2-ethylhexyl) phthalate	0.19		0.19	0.068	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Benzo[b]fluoranthene	0.11		0.037	0.0081	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Benzo[k]fluoranthene	0.061		0.037	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Benzo[a]pyrene	0.080		0.037	0.0072	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Indeno[1,2,3-cd]pyrene	0.081		0.037	0.0097	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
Benzo[g,h,i]perylene	0.099		0.037	0.012	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 23:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	94		25 - 110	02/23/16 07:13	02/28/16 23:06	1
Phenol-d5	92		31 - 110	02/23/16 07:13	02/28/16 23:06	1
Nitrobenzene-d5	92		25 - 115	02/23/16 07:13	02/28/16 23:06	1
2-Fluorobiphenyl	85		25 - 119	02/23/16 07:13	02/28/16 23:06	1
2,4,6-Tribromophenol	98		35 - 137	02/23/16 07:13	02/28/16 23:06	1
Terphenyl-d14	204	X	36 - 134	02/23/16 07:13	02/28/16 23:06	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	02/25/16 09:30	02/26/16 17:53	1
Arsenic	2.2		0.54	0.25	mg/Kg	☼	02/25/16 09:30	02/26/16 17:53	1
Barium	25		0.54	0.099	mg/Kg	☼	02/25/16 09:30	02/26/16 17:53	1
Beryllium	0.12	J	0.22	0.047	mg/Kg	☼	02/25/16 09:30	02/26/16 17:53	1
Boron	8.1		2.7	0.38	mg/Kg	☼	02/25/16 09:30	02/26/16 17:53	1
Cadmium	0.15		0.11	0.031	mg/Kg	☼	02/25/16 09:30	02/26/16 17:53	1
Calcium	170000	B	110	35	mg/Kg	☼	02/25/16 09:30	02/27/16 23:51	10
Chromium	6.8	B	0.54	0.093	mg/Kg	☼	02/25/16 09:30	02/26/16 17:53	1
Cobalt	2.7		0.27	0.061	mg/Kg	☼	02/25/16 09:30	02/26/16 17:53	1
Copper	11		0.54	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 17:53	1
Iron	5300		11	4.2	mg/Kg	☼	02/25/16 09:30	02/26/16 17:53	1
Lead	33		0.27	0.13	mg/Kg	☼	02/25/16 09:30	02/26/16 17:53	1
Magnesium	110000		54	22	mg/Kg	☼	02/25/16 09:30	02/27/16 23:51	10
Manganese	300	B	0.54	0.11	mg/Kg	☼	02/25/16 09:30	02/28/16 01:22	1
Nickel	6.4		0.54	0.15	mg/Kg	☼	02/25/16 09:30	02/26/16 17:53	1
Potassium	530		27	4.4	mg/Kg	☼	02/25/16 09:30	02/26/16 17:53	1
Selenium	0.32	J	0.54	0.27	mg/Kg	☼	02/25/16 09:30	02/26/16 17:53	1
Silver	1.4		0.27	0.063	mg/Kg	☼	02/25/16 09:30	02/26/16 17:53	1
Sodium	710		54	7.1	mg/Kg	☼	02/25/16 09:30	02/26/16 17:53	1
Thallium	<0.54		0.54	0.26	mg/Kg	☼	02/25/16 09:30	02/26/16 17:53	1
Vanadium	8.4		0.27	0.079	mg/Kg	☼	02/25/16 09:30	02/26/16 17:53	1
Zinc	34		1.1	0.34	mg/Kg	☼	02/25/16 09:30	02/26/16 17:53	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.33	J	0.50	0.050	mg/L		02/23/16 16:01	02/27/16 00:32	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/27/16 00:32	1
Boron	0.61		0.50	0.050	mg/L		02/23/16 16:01	02/27/16 00:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B03 (0-1)

Lab Sample ID: 500-107703-17

Date Collected: 02/17/16 13:30

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/27/16 00:32	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:32	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:32	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/27/16 00:32	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/23/16 16:01	02/27/16 00:32	1
Manganese	1.2		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:32	1
Nickel	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:32	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/27/16 00:32	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:32	1
Zinc	0.19	J B	0.50	0.020	mg/L		02/23/16 16:01	02/27/16 00:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.077		0.025	0.010	mg/L		02/23/16 16:10	02/27/16 22:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 18:12	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 18:12	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:42	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0088	mg/Kg	☼	02/23/16 15:15	02/24/16 14:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.35		0.200	0.200	SU			02/23/16 12:32	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B04 (0-1)

Lab Sample ID: 500-107703-18

Date Collected: 02/17/16 13:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 91.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.23		0.23	0.079	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Benzene	<0.011		0.011	0.0067	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Bromodichloromethane	<0.046		0.046	0.017	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Bromoform	<0.046		0.046	0.022	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Bromomethane	<0.091		0.091	0.036	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
2-Butanone (MEK)	<0.23		0.23	0.097	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Carbon disulfide	<0.091		0.091	0.037	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Carbon tetrachloride	<0.046		0.046	0.017	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Chlorobenzene	<0.046		0.046	0.018	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Chloroethane	<0.046		0.046	0.023	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Chloroform	<0.046		0.046	0.017	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Chloromethane	<0.046		0.046	0.015	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
cis-1,2-Dichloroethene	<0.046		0.046	0.019	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
cis-1,3-Dichloropropene	<0.046		0.046	0.019	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Dibromochloromethane	<0.046		0.046	0.022	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
1,1-Dichloroethane	<0.046		0.046	0.019	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
1,2-Dichloroethane	<0.046		0.046	0.018	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
1,1-Dichloroethene	<0.046		0.046	0.018	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
1,2-Dichloropropane	<0.046		0.046	0.020	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
1,3-Dichloropropene, Total	<0.046		0.046	0.019	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Ethylbenzene	<0.011		0.011	0.0083	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
2-Hexanone	<0.23		0.23	0.071	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Methylene Chloride	<0.23		0.23	0.074	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
4-Methyl-2-pentanone (MIBK)	<0.23		0.23	0.098	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Methyl tert-butyl ether	0.051		0.046	0.018	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Styrene	<0.046		0.046	0.018	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
1,1,1,2-Tetrachloroethane	<0.046		0.046	0.018	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Tetrachloroethene	<0.046		0.046	0.017	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Toluene	<0.011		0.011	0.0067	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
trans-1,2-Dichloroethene	<0.046		0.046	0.016	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
trans-1,3-Dichloropropene	<0.046		0.046	0.016	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
1,1,1-Trichloroethane	<0.046		0.046	0.017	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
1,1,2-Trichloroethane	<0.046		0.046	0.016	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Trichloroethene	<0.023		0.023	0.0075	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Vinyl acetate	<0.091		0.091	0.041	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Vinyl chloride	<0.023		0.023	0.012	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50
Xylenes, Total	<0.023		0.023	0.010	mg/Kg	☼	02/17/16 13:35	03/01/16 13:44	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		75 - 120	02/17/16 13:35	03/01/16 13:44	50
Dibromofluoromethane	89		75 - 120	02/17/16 13:35	03/01/16 13:44	50
1,2-Dichloroethane-d4 (Surr)	83		75 - 125	02/17/16 13:35	03/01/16 13:44	50
Toluene-d8 (Surr)	98		75 - 120	02/17/16 13:35	03/01/16 13:44	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.17		0.17	0.077	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Bis(2-chloroethyl)ether	<0.17	*	0.17	0.052	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
1,3-Dichlorobenzene	<0.17		0.17	0.039	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
1,4-Dichlorobenzene	<0.17		0.17	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B04 (0-1)

Lab Sample ID: 500-107703-18

Date Collected: 02/17/16 13:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 91.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.17		0.17	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
2-Methylphenol	<0.17		0.17	0.055	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.040	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
N-Nitrosodi-n-propylamine	<0.070		0.070	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Hexachloroethane	<0.17		0.17	0.052	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
2-Chlorophenol	<0.17		0.17	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Nitrobenzene	<0.034		0.034	0.0086	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.035	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.037	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Isophorone	<0.17		0.17	0.039	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
2,4-Dimethylphenol	<0.34		0.34	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Hexachlorobutadiene	<0.17		0.17	0.054	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Naphthalene	<0.034		0.034	0.0053	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
2,4-Dichlorophenol	<0.34		0.34	0.082	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
4-Chloroaniline	<0.70		0.70	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
2,4,6-Trichlorophenol	<0.34		0.34	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
2,4,5-Trichlorophenol	<0.34		0.34	0.079	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Hexachlorocyclopentadiene	<0.70		0.70	0.20	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
2-Methylnaphthalene	<0.034		0.034	0.0063	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
2-Nitroaniline	<0.17		0.17	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
2-Chloronaphthalene	<0.17		0.17	0.038	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
4-Chloro-3-methylphenol	<0.34		0.34	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
2,6-Dinitrotoluene	<0.17		0.17	0.068	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
2-Nitrophenol	<0.34		0.34	0.082	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
3-Nitroaniline	<0.34		0.34	0.11	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Dimethyl phthalate	<0.17		0.17	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
2,4-Dinitrophenol	<0.70		0.70	0.61	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Acenaphthylene	<0.034		0.034	0.0046	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
2,4-Dinitrotoluene	<0.17		0.17	0.055	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Acenaphthene	<0.034		0.034	0.0062	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Dibenzofuran	<0.17		0.17	0.040	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
4-Nitrophenol	<0.70		0.70	0.33	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Fluorene	<0.034		0.034	0.0049	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
4-Nitroaniline	<0.34		0.34	0.14	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.046	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Hexachlorobenzene	<0.070		0.070	0.0080	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Diethyl phthalate	<0.17		0.17	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.040	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Pentachlorophenol	<0.70		0.70	0.55	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
N-Nitrosodiphenylamine	<0.17		0.17	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
4,6-Dinitro-2-methylphenol	<0.70		0.70	0.28	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Phenanthrene	0.020	J	0.034	0.0048	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Anthracene	<0.034		0.034	0.0058	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Carbazole	<0.17		0.17	0.086	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Di-n-butyl phthalate	<0.17		0.17	0.053	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Fluoranthene	0.042		0.034	0.0064	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Pyrene	0.10		0.034	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Butyl benzyl phthalate	<0.17		0.17	0.066	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Benzo[a]anthracene	0.033	J	0.034	0.0046	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B04 (0-1)

Lab Sample ID: 500-107703-18

Date Collected: 02/17/16 13:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 91.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.047		0.034	0.0094	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.048	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Di-n-octyl phthalate	<0.17		0.17	0.056	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Benzo[b]fluoranthene	0.079		0.034	0.0075	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Benzo[k]fluoranthene	0.025 J		0.034	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Benzo[a]pyrene	0.049		0.034	0.0067	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Indeno[1,2,3-cd]pyrene	0.055		0.034	0.0089	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Dibenz(a,h)anthracene	<0.034		0.034	0.0067	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
Benzo[g,h,i]perylene	0.082		0.034	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1
3 & 4 Methylphenol	<0.17		0.17	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 23:35	1

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>2-Fluorophenol</i>	94		25 - 110			02/23/16 07:13	02/28/16 23:35	1
<i>Phenol-d5</i>	56		31 - 110			02/23/16 07:13	02/28/16 23:35	1
<i>Nitrobenzene-d5</i>	85		25 - 115			02/23/16 07:13	02/28/16 23:35	1
<i>2-Fluorobiphenyl</i>	84		25 - 119			02/23/16 07:13	02/28/16 23:35	1
<i>2,4,6-Tribromophenol</i>	95		35 - 137			02/23/16 07:13	02/28/16 23:35	1
<i>Terphenyl-d14</i>	205	X	36 - 134			02/23/16 07:13	02/28/16 23:35	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.99		0.99	0.21	mg/Kg	☼	02/25/16 09:30	02/26/16 17:59	1
Arsenic	2.4		0.50	0.23	mg/Kg	☼	02/25/16 09:30	02/26/16 17:59	1
Barium	12		0.50	0.091	mg/Kg	☼	02/25/16 09:30	02/26/16 17:59	1
Beryllium	0.11 J		0.20	0.043	mg/Kg	☼	02/25/16 09:30	02/26/16 17:59	1
Boron	12		2.5	0.35	mg/Kg	☼	02/25/16 09:30	02/26/16 17:59	1
Cadmium	<0.099		0.099	0.029	mg/Kg	☼	02/25/16 09:30	02/26/16 17:59	1
Calcium	190000 B		99	32	mg/Kg	☼	02/25/16 09:30	02/27/16 23:55	10
Chromium	6.2 B		0.50	0.085	mg/Kg	☼	02/25/16 09:30	02/26/16 17:59	1
Cobalt	2.0		0.25	0.056	mg/Kg	☼	02/25/16 09:30	02/26/16 17:59	1
Copper	5.9		0.50	0.11	mg/Kg	☼	02/25/16 09:30	02/26/16 17:59	1
Iron	4700		9.9	3.8	mg/Kg	☼	02/25/16 09:30	02/26/16 17:59	1
Lead	13		0.25	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 17:59	1
Magnesium	110000		50	20	mg/Kg	☼	02/25/16 09:30	02/27/16 23:55	10
Manganese	220 B		0.50	0.098	mg/Kg	☼	02/25/16 09:30	02/28/16 01:35	1
Nickel	5.2		0.50	0.13	mg/Kg	☼	02/25/16 09:30	02/26/16 17:59	1
Potassium	600		25	4.0	mg/Kg	☼	02/25/16 09:30	02/26/16 17:59	1
Selenium	<0.50		0.50	0.25	mg/Kg	☼	02/25/16 09:30	02/26/16 17:59	1
Silver	<0.25		0.25	0.058	mg/Kg	☼	02/25/16 09:30	02/26/16 17:59	1
Sodium	570		50	6.5	mg/Kg	☼	02/25/16 09:30	02/26/16 17:59	1
Thallium	<0.50		0.50	0.24	mg/Kg	☼	02/25/16 09:30	02/26/16 17:59	1
Vanadium	6.5		0.25	0.072	mg/Kg	☼	02/25/16 09:30	02/26/16 17:59	1
Zinc	20		0.99	0.31	mg/Kg	☼	02/25/16 09:30	02/26/16 17:59	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.21 J		0.50	0.050	mg/L		02/23/16 16:01	02/27/16 00:39	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/27/16 00:39	1
Boron	0.56		0.50	0.050	mg/L		02/23/16 16:01	02/27/16 00:39	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B04 (0-1)

Lab Sample ID: 500-107703-18

Date Collected: 02/17/16 13:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 91.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/27/16 00:39	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:39	1
Cobalt	0.011	J	0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:39	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/27/16 00:39	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/23/16 16:01	02/27/16 00:39	1
Manganese	1.9		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:39	1
Nickel	0.018	J	0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:39	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/27/16 00:39	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 00:39	1
Zinc	0.28	J B	0.50	0.020	mg/L		02/23/16 16:01	02/27/16 00:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		02/23/16 16:10	02/27/16 22:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 18:16	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 18:16	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:44	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0091	mg/Kg	☼	02/23/16 15:15	02/24/16 14:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.11		0.200	0.200	SU			02/23/16 12:38	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B06 (0-1)

Lab Sample ID: 500-107703-19

Date Collected: 02/17/16 13:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.26		0.23	0.080	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Benzene	<0.012		0.012	0.0068	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Bromodichloromethane	<0.046		0.046	0.017	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Bromoform	<0.046		0.046	0.022	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Bromomethane	<0.093		0.093	0.037	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
2-Butanone (MEK)	<0.23		0.23	0.099	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Carbon disulfide	<0.093		0.093	0.037	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Carbon tetrachloride	<0.046		0.046	0.018	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Chlorobenzene	<0.046		0.046	0.018	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Chloroethane	<0.046		0.046	0.023	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Chloroform	<0.046		0.046	0.017	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Chloromethane	<0.046		0.046	0.015	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
cis-1,2-Dichloroethene	<0.046		0.046	0.019	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
cis-1,3-Dichloropropene	<0.046		0.046	0.019	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Dibromochloromethane	<0.046		0.046	0.023	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
1,1-Dichloroethane	<0.046		0.046	0.019	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
1,2-Dichloroethane	<0.046		0.046	0.018	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
1,1-Dichloroethene	<0.046		0.046	0.018	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
1,2-Dichloropropane	<0.046		0.046	0.020	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
1,3-Dichloropropane, Total	<0.046		0.046	0.019	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Ethylbenzene	<0.012		0.012	0.0085	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
2-Hexanone	<0.23		0.23	0.073	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Methylene Chloride	<0.23		0.23	0.076	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
4-Methyl-2-pentanone (MIBK)	<0.23		0.23	0.10	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Methyl tert-butyl ether	0.073		0.046	0.018	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Styrene	<0.046		0.046	0.018	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
1,1,2,2-Tetrachloroethane	<0.046		0.046	0.018	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Tetrachloroethene	<0.046		0.046	0.017	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Toluene	<0.012		0.012	0.0068	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
trans-1,2-Dichloroethene	<0.046		0.046	0.016	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
trans-1,3-Dichloropropene	<0.046		0.046	0.017	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
1,1,1-Trichloroethane	<0.046		0.046	0.018	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
1,1,2-Trichloroethane	<0.046		0.046	0.016	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Trichloroethene	<0.023		0.023	0.0076	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Vinyl acetate	<0.093		0.093	0.042	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Vinyl chloride	<0.023		0.023	0.012	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50
Xylenes, Total	<0.023		0.023	0.010	mg/Kg	☼	02/17/16 13:45	03/01/16 13:32	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>4-Bromofluorobenzene (Surr)</i>	89		75 - 120	02/17/16 13:45	03/01/16 13:32	50
<i>Dibromofluoromethane</i>	93		75 - 120	02/17/16 13:45	03/01/16 13:32	50
<i>1,2-Dichloroethane-d4 (Surr)</i>	103		75 - 125	02/17/16 13:45	03/01/16 13:32	50
<i>Toluene-d8 (Surr)</i>	95		75 - 120	02/17/16 13:45	03/01/16 13:32	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.080	mg/Kg	☼	02/23/16 07:13	02/29/16 00:03	1
Bis(2-chloroethyl)ether	<0.18	*	0.18	0.054	mg/Kg	☼	02/23/16 07:13	02/29/16 00:03	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:13	02/29/16 00:03	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	02/23/16 07:13	02/29/16 00:03	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B06 (0-1)

Lab Sample ID: 500-107703-19

Date Collected: 02/17/16 13:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Isophorone	<0.18		0.18	0.040	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Naphthalene	<0.036		0.036	0.0055	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
2-Methylnaphthalene	<0.036		0.036	0.0066	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
2,4-Dinitrophenol	<0.73		0.73	0.64	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Acenaphthene	<0.036		0.036	0.0065	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Phenanthrene	0.052		0.036	0.0050	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Anthracene	0.0097 J		0.036	0.0060	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Carbazole	<0.18		0.18	0.090	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Fluoranthene	0.061		0.036	0.0067	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Pyrene	0.15		0.036	0.0072	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1
Benzo[a]anthracene	0.050		0.036	0.0049	mg/Kg	*	02/23/16 07:13	02/29/16 00:03	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B06 (0-1)

Lab Sample ID: 500-107703-19

Date Collected: 02/17/16 13:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.065		0.036	0.0098	mg/Kg	☼	02/23/16 07:13	02/29/16 00:03	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	02/23/16 07:13	02/29/16 00:03	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	02/23/16 07:13	02/29/16 00:03	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	02/23/16 07:13	02/29/16 00:03	1
Benzo[b]fluoranthene	0.080		0.036	0.0078	mg/Kg	☼	02/23/16 07:13	02/29/16 00:03	1
Benzo[k]fluoranthene	0.036		0.036	0.011	mg/Kg	☼	02/23/16 07:13	02/29/16 00:03	1
Benzo[a]pyrene	0.059		0.036	0.0070	mg/Kg	☼	02/23/16 07:13	02/29/16 00:03	1
Indeno[1,2,3-cd]pyrene	0.061		0.036	0.0093	mg/Kg	☼	02/23/16 07:13	02/29/16 00:03	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0070	mg/Kg	☼	02/23/16 07:13	02/29/16 00:03	1
Benzo[g,h,i]perylene	0.084		0.036	0.012	mg/Kg	☼	02/23/16 07:13	02/29/16 00:03	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	02/23/16 07:13	02/29/16 00:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	86		25 - 110	02/23/16 07:13	02/29/16 00:03	1
Phenol-d5	83		31 - 110	02/23/16 07:13	02/29/16 00:03	1
Nitrobenzene-d5	84		25 - 115	02/23/16 07:13	02/29/16 00:03	1
2-Fluorobiphenyl	77		25 - 119	02/23/16 07:13	02/29/16 00:03	1
2,4,6-Tribromophenol	88		35 - 137	02/23/16 07:13	02/29/16 00:03	1
Terphenyl-d14	198	X	36 - 134	02/23/16 07:13	02/29/16 00:03	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1
Arsenic	3.2		0.54	0.25	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1
Barium	35		0.54	0.098	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1
Beryllium	0.27		0.21	0.047	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1
Boron	5.3		2.7	0.38	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1
Cadmium	0.068	J	0.11	0.031	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1
Calcium	70000	B	110	35	mg/Kg	☼	02/25/16 09:30	02/27/16 23:59	10
Chromium	9.1	B	0.54	0.092	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1
Cobalt	3.9		0.27	0.061	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1
Copper	8.9		0.54	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1
Iron	7400		11	4.1	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1
Lead	31		0.27	0.13	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1
Magnesium	30000		5.4	2.2	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1
Manganese	240	B	0.54	0.11	mg/Kg	☼	02/25/16 09:30	02/28/16 01:40	1
Nickel	9.9		0.54	0.15	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1
Potassium	670		27	4.4	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1
Selenium	<0.54		0.54	0.27	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1
Sodium	1300		54	7.1	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1
Thallium	<0.54		0.54	0.26	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1
Vanadium	13		0.27	0.078	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1
Zinc	39		1.1	0.34	mg/Kg	☼	02/25/16 09:30	02/26/16 18:05	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.39	J	0.50	0.050	mg/L		02/23/16 16:01	02/27/16 01:01	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/27/16 01:01	1
Boron	0.075	J	0.50	0.050	mg/L		02/23/16 16:01	02/27/16 01:01	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B06 (0-1)

Lab Sample ID: 500-107703-19

Date Collected: 02/17/16 13:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/27/16 01:01	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 01:01	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 01:01	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/27/16 01:01	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/23/16 16:01	02/27/16 01:01	1
Manganese	0.78		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 01:01	1
Nickel	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 01:01	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/27/16 01:01	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 01:01	1
Zinc	0.24	J B	0.50	0.020	mg/L		02/23/16 16:01	02/27/16 01:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.6		0.025	0.010	mg/L		02/23/16 16:10	02/27/16 22:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 18:32	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 18:32	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:46	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019		0.017	0.0089	mg/Kg	☼	02/23/16 15:15	02/24/16 14:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.75		0.200	0.200	SU			02/23/16 12:43	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B08 (0-1)

Lab Sample ID: 500-107703-20

Date Collected: 02/17/16 13:50

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0039	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Benzene	<0.0050		0.0050	0.0011	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Bromodichloromethane	<0.0050		0.0050	0.00084	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Bromoform	<0.0050		0.0050	0.0010	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Bromomethane	<0.0050		0.0050	0.0018	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
2-Butanone (MEK)	<0.0050		0.0050	0.0018	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Carbon disulfide	<0.0050		0.0050	0.0018	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Carbon tetrachloride	<0.0050		0.0050	0.0011	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Chlorobenzene	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Chloroethane	<0.0050		0.0050	0.0021	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Chloroform	<0.0050		0.0050	0.00097	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Chloromethane	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
cis-1,2-Dichloroethene	<0.0050		0.0050	0.0010	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
cis-1,3-Dichloropropene	<0.0050		0.0050	0.0011	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Dibromochloromethane	<0.0050		0.0050	0.00057	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
1,1-Dichloroethane	<0.0050		0.0050	0.0010	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
1,2-Dichloroethane	<0.0050		0.0050	0.00074	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
1,1-Dichloroethene	<0.0050		0.0050	0.0018	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
1,2-Dichloropropane	<0.0050		0.0050	0.0013	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
1,3-Dichloropropene, Total	<0.0050		0.0050	0.0014	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Ethylbenzene	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
2-Hexanone	<0.0050		0.0050	0.0015	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Methylene Chloride	<0.0050		0.0050	0.0038	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0010	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Methyl tert-butyl ether	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Styrene	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
1,1,2,2-Tetrachloroethane	<0.0050 *		0.0050	0.00079	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Tetrachloroethene	<0.0050		0.0050	0.0010	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Toluene	<0.0050		0.0050	0.0017	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
trans-1,2-Dichloroethene	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
trans-1,3-Dichloropropene	<0.0050		0.0050	0.0014	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
1,1,1-Trichloroethane	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
1,1,2-Trichloroethane	<0.0050		0.0050	0.00097	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Trichloroethene	<0.0050		0.0050	0.0013	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Vinyl acetate	<0.0050 *		0.0050	0.0013	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Vinyl chloride	<0.0050		0.0050	0.0012	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1
Xylenes, Total	<0.010		0.010	0.0018	mg/Kg	☼	02/18/16 08:10	02/29/16 23:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 122	02/18/16 08:10	02/29/16 23:39	1
Dibromofluoromethane	110		75 - 120	02/18/16 08:10	02/29/16 23:39	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 134	02/18/16 08:10	02/29/16 23:39	1
Toluene-d8 (Surr)	111		75 - 122	02/18/16 08:10	02/29/16 23:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.087	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Bis(2-chloroethyl)ether	<0.20 *		0.20	0.059	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B08 (0-1)

Lab Sample ID: 500-107703-20

Date Collected: 02/17/16 13:50

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Phenanthrene	0.059		0.039	0.0055	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Anthracene	0.012 J		0.039	0.0066	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Fluoranthene	0.078		0.039	0.0073	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Pyrene	0.19		0.039	0.0078	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Benzo[a]anthracene	0.060		0.039	0.0053	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B08 (0-1)

Lab Sample ID: 500-107703-20

Date Collected: 02/17/16 13:50

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.082		0.039	0.011	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Benzo[b]fluoranthene	0.12		0.039	0.0085	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Benzo[k]fluoranthene	0.12		0.039	0.012	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Benzo[a]pyrene	0.076		0.039	0.0076	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
Benzo[g,h,i]perylene	0.11		0.039	0.013	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	02/23/16 07:13	02/29/16 00:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	85		25 - 110	02/23/16 07:13	02/29/16 00:32	1
Phenol-d5	0	X	31 - 110	02/23/16 07:13	02/29/16 00:32	1
Nitrobenzene-d5	84		25 - 115	02/23/16 07:13	02/29/16 00:32	1
2-Fluorobiphenyl	78		25 - 119	02/23/16 07:13	02/29/16 00:32	1
2,4,6-Tribromophenol	89		35 - 137	02/23/16 07:13	02/29/16 00:32	1
Terphenyl-d14	201	X	36 - 134	02/23/16 07:13	02/29/16 00:32	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	☼	02/25/16 09:30	02/26/16 18:20	1
Arsenic	4.7		0.55	0.25	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1
Barium	45		0.55	0.10	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1
Beryllium	0.33		0.22	0.048	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1
Boron	7.6		2.8	0.39	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1
Cadmium	0.24		0.11	0.032	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1
Calcium	96000	B	110	36	mg/Kg	☼	02/25/16 09:30	02/28/16 00:04	10
Chromium	14	B	0.55	0.095	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1
Cobalt	5.7		0.28	0.062	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1
Copper	16		0.55	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1
Iron	9900		11	4.3	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1
Lead	140		0.28	0.14	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1
Magnesium	40000		5.5	2.2	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1
Manganese	370	B	0.55	0.11	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1
Nickel	12		0.55	0.15	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1
Potassium	870		28	4.5	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1
Selenium	<0.55		0.55	0.27	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1
Silver	<0.28		0.28	0.065	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1
Sodium	1700		55	7.3	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1
Vanadium	18		0.28	0.081	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1
Zinc	67		1.1	0.35	mg/Kg	☼	02/25/16 09:30	02/26/16 18:20	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.23	J	0.50	0.050	mg/L		02/23/16 16:01	02/27/16 01:08	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/27/16 01:08	1
Boron	0.060	J	0.50	0.050	mg/L		02/23/16 16:01	02/27/16 01:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B08 (0-1)

Lab Sample ID: 500-107703-20

Date Collected: 02/17/16 13:50

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/27/16 01:08	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 01:08	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 01:08	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/27/16 01:08	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/23/16 16:01	02/27/16 01:08	1
Manganese	0.51		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 01:08	1
Nickel	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 01:08	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/27/16 01:08	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/27/16 01:08	1
Zinc	0.16	J B	0.50	0.020	mg/L		02/23/16 16:01	02/27/16 01:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.51		0.025	0.010	mg/L		02/23/16 16:10	02/27/16 23:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 18:36	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 18:36	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:48	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	J	0.018	0.0093	mg/Kg	☼	02/23/16 15:15	02/24/16 15:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.69		0.200	0.200	SU			02/23/16 12:48	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B10 (0-1)

Lab Sample ID: 500-107703-21

Date Collected: 02/17/16 13:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0031	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Benzene	<0.0040		0.0040	0.00088	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Bromodichloromethane	<0.0040		0.0040	0.00067	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Bromoform	<0.0040		0.0040	0.00081	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
2-Butanone (MEK)	<0.0040		0.0040	0.0014	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Carbon disulfide	<0.0040		0.0040	0.0015	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Carbon tetrachloride	<0.0040		0.0040	0.00085	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Chlorobenzene	<0.0040		0.0040	0.00093	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Chloroethane	<0.0040		0.0040	0.0017	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Chloroform	<0.0040		0.0040	0.00077	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Chloromethane	<0.0040		0.0040	0.00095	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
cis-1,2-Dichloroethene	<0.0040		0.0040	0.00081	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
cis-1,3-Dichloropropene	<0.0040		0.0040	0.00090	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Dibromochloromethane	<0.0040		0.0040	0.00046	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
1,1-Dichloroethane	<0.0040		0.0040	0.00082	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
1,2-Dichloroethane	<0.0040		0.0040	0.00059	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
1,1-Dichloroethene	<0.0040		0.0040	0.0014	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
1,2-Dichloropropane	<0.0040		0.0040	0.0010	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
1,3-Dichloropropane, Total	<0.0040		0.0040	0.0011	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Ethylbenzene	<0.0040		0.0040	0.00098	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
2-Hexanone	<0.0040		0.0040	0.0012	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Methylene Chloride	<0.0040		0.0040	0.0030	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.00082	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Methyl tert-butyl ether	<0.0040		0.0040	0.00093	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Styrene	<0.0040		0.0040	0.00093	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
1,1,2,2-Tetrachloroethane	<0.0040		0.0040	0.00063	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Tetrachloroethene	<0.0040		0.0040	0.00082	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Toluene	<0.0040		0.0040	0.0014	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
trans-1,2-Dichloroethene	<0.0040		0.0040	0.00099	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
trans-1,3-Dichloropropene	<0.0040		0.0040	0.0011	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
1,1,1-Trichloroethane	<0.0040		0.0040	0.00092	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
1,1,2-Trichloroethane	<0.0040		0.0040	0.00077	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Trichloroethene	<0.0040		0.0040	0.0011	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Vinyl acetate	<0.0040	*	0.0040	0.0011	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Vinyl chloride	<0.0040		0.0040	0.00094	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1
Xylenes, Total	<0.0079		0.0079	0.0015	mg/Kg	☼	02/18/16 08:10	03/01/16 00:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 122	02/18/16 08:10	03/01/16 00:05	1
Dibromofluoromethane	111		75 - 120	02/18/16 08:10	03/01/16 00:05	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 134	02/18/16 08:10	03/01/16 00:05	1
Toluene-d8 (Surr)	108		75 - 122	02/18/16 08:10	03/01/16 00:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18	F1	0.18	0.080	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B10 (0-1)

Lab Sample ID: 500-107703-21

Date Collected: 02/17/16 13:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Hexachloroethane	<0.18	F1	0.18	0.055	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Naphthalene	0.0067	J	0.036	0.0055	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Hexachlorocyclopentadiene	<0.73	F1	0.73	0.21	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
2-Methylnaphthalene	0.012	J	0.036	0.0066	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
2,4-Dinitrophenol	<0.73	F1	0.73	0.63	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Acenaphthylene	0.0057	J	0.036	0.0047	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Acenaphthene	<0.036		0.036	0.0065	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Fluorene	0.0054	J	0.036	0.0051	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
4-Nitroaniline	<0.36	F2	0.36	0.15	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
4-Bromophenyl phenyl ether	<0.18	F1	0.18	0.047	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Hexachlorobenzene	<0.073	F1	0.073	0.0083	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Pentachlorophenol	<0.73	F1	0.73	0.58	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
N-Nitrosodiphenylamine	<0.18	F1	0.18	0.043	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
4,6-Dinitro-2-methylphenol	<0.73	F1	0.73	0.29	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Phenanthrene	0.089		0.036	0.0050	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Anthracene	0.017	J	0.036	0.0060	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Carbazole	<0.18		0.18	0.090	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Fluoranthene	0.17	F1	0.036	0.0067	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Pyrene	0.17	F1	0.036	0.0072	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Butyl benzyl phthalate	<0.18	F1	0.18	0.069	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Benzo[a]anthracene	0.073		0.036	0.0048	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B10 (0-1)

Lab Sample ID: 500-107703-21

Date Collected: 02/17/16 13:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.091		0.036	0.0098	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
3,3'-Dichlorobenzidine	<0.18	F1 F2	0.18	0.050	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Bis(2-ethylhexyl) phthalate	<0.18	F1	0.18	0.066	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Di-n-octyl phthalate	<0.18	F1	0.18	0.059	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Benzo[b]fluoranthene	0.13		0.036	0.0078	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Benzo[k]fluoranthene	0.070		0.036	0.011	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Benzo[a]pyrene	0.086		0.036	0.0070	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Indeno[1,2,3-cd]pyrene	0.049		0.036	0.0093	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0070	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
Benzo[g,h,i]perylene	0.046		0.036	0.012	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	02/22/16 17:16	02/29/16 20:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	82		25 - 110	02/22/16 17:16	02/29/16 20:26	1
Phenol-d5	79		31 - 110	02/22/16 17:16	02/29/16 20:26	1
Nitrobenzene-d5	73		25 - 115	02/22/16 17:16	02/29/16 20:26	1
2-Fluorobiphenyl	79		25 - 119	02/22/16 17:16	02/29/16 20:26	1
2,4,6-Tribromophenol	81		35 - 137	02/22/16 17:16	02/29/16 20:26	1
Terphenyl-d14	136	X	36 - 134	02/22/16 17:16	02/29/16 20:26	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1	F1	1.1	0.23	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1
Arsenic	4.1		0.56	0.26	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1
Barium	32		0.56	0.10	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1
Beryllium	0.27		0.22	0.048	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1
Boron	8.2	F1	2.8	0.39	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1
Cadmium	0.18		0.11	0.032	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1
Calcium	130000	F2 B	110	36	mg/Kg	☼	02/25/16 09:16	02/26/16 15:16	10
Chromium	9.9	F1 B	0.56	0.096	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1
Cobalt	3.9		0.28	0.063	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1
Copper	12		0.56	0.12	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1
Iron	8300	B	11	4.3	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1
Lead	91		0.28	0.14	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1
Magnesium	75000	F2 B	56	23	mg/Kg	☼	02/25/16 09:16	02/26/16 15:16	10
Manganese	270		0.56	0.11	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1
Nickel	10		0.56	0.15	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1
Potassium	720	F1	28	4.6	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1
Selenium	0.42	J F1 B	0.56	0.28	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1
Silver	<0.28		0.28	0.065	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1
Sodium	1300	F1	56	7.4	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1
Vanadium	13		0.28	0.082	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1
Zinc	52		1.1	0.35	mg/Kg	☼	02/25/16 09:16	02/25/16 18:35	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.36	J	0.50	0.050	mg/L		02/23/16 16:06	02/24/16 13:29	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:06	02/24/16 13:29	1
Boron	0.58		0.50	0.050	mg/L		02/23/16 16:06	02/24/16 13:29	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B10 (0-1)

Lab Sample ID: 500-107703-21

Date Collected: 02/17/16 13:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:06	02/24/16 13:29	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:06	02/24/16 13:29	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:06	02/24/16 13:29	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:06	02/24/16 13:29	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/23/16 16:06	02/24/16 13:29	1
Manganese	1.1		0.025	0.010	mg/L		02/23/16 16:06	02/24/16 13:29	1
Nickel	0.012	J	0.025	0.010	mg/L		02/23/16 16:06	02/24/16 13:29	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:06	02/24/16 13:29	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:06	02/24/16 13:29	1
Zinc	0.068	J	0.50	0.020	mg/L		02/23/16 16:06	02/24/16 13:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.28		0.025	0.010	mg/L		02/23/16 16:13	02/29/16 11:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:06	02/25/16 19:01	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:06	02/25/16 19:01	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 13:36	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019	F1 F2	0.018	0.0095	mg/Kg	☼	02/23/16 13:30	02/25/16 14:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.52		0.200	0.200	SU			02/23/16 12:58	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B12 (0-1)

Lab Sample ID: 500-107703-22

Date Collected: 02/17/16 14:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.24		0.24	0.081	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Benzene	<0.012		0.012	0.0069	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Bromodichloromethane	<0.047		0.047	0.018	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Bromoform	<0.047		0.047	0.023	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Bromomethane	<0.094		0.094	0.037	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
2-Butanone (MEK)	<0.24		0.24	0.10	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Carbon disulfide	<0.094		0.094	0.038	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Carbon tetrachloride	<0.047		0.047	0.018	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Chlorobenzene	<0.047		0.047	0.018	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Chloroethane	<0.047		0.047	0.024	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Chloroform	<0.047		0.047	0.017	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Chloromethane	<0.047		0.047	0.015	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
cis-1,2-Dichloroethene	<0.047		0.047	0.019	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
cis-1,3-Dichloropropene	<0.047		0.047	0.020	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Dibromochloromethane	<0.047		0.047	0.023	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
1,1-Dichloroethane	<0.047		0.047	0.019	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
1,2-Dichloroethane	<0.047		0.047	0.018	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
1,1-Dichloroethene	<0.047		0.047	0.018	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
1,2-Dichloropropane	<0.047		0.047	0.020	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
1,3-Dichloropropene, Total	<0.047		0.047	0.020	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Ethylbenzene	<0.012		0.012	0.0086	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
2-Hexanone	<0.24		0.24	0.073	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Methylene Chloride	<0.24		0.24	0.077	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
4-Methyl-2-pentanone (MIBK)	<0.24		0.24	0.10	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Methyl tert-butyl ether	0.10		0.047	0.019	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Styrene	<0.047		0.047	0.018	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
1,1,2,2-Tetrachloroethane	<0.047		0.047	0.019	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Tetrachloroethene	<0.047		0.047	0.017	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Toluene	<0.012		0.012	0.0069	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
trans-1,2-Dichloroethene	<0.047		0.047	0.016	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
trans-1,3-Dichloropropene	<0.047		0.047	0.017	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
1,1,1-Trichloroethane	<0.047		0.047	0.018	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
1,1,2-Trichloroethane	<0.047		0.047	0.017	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Trichloroethene	<0.024		0.024	0.0077	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Vinyl acetate	<0.094		0.094	0.043	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Vinyl chloride	<0.024		0.024	0.012	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50
Xylenes, Total	<0.024		0.024	0.010	mg/Kg	☼	02/17/16 14:00	03/01/16 13:59	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		75 - 120	02/17/16 14:00	03/01/16 13:59	50
Dibromofluoromethane	90		75 - 120	02/17/16 14:00	03/01/16 13:59	50
1,2-Dichloroethane-d4 (Surr)	103		75 - 125	02/17/16 14:00	03/01/16 13:59	50
Toluene-d8 (Surr)	95		75 - 120	02/17/16 14:00	03/01/16 13:59	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.080	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B12 (0-1)

Lab Sample ID: 500-107703-22

Date Collected: 02/17/16 14:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Naphthalene	<0.036		0.036	0.0055	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
2,4-Dichlorophenol	<0.36		0.36	0.085	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
2-Methylnaphthalene	<0.036		0.036	0.0066	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
2,4-Dinitrophenol	<0.73		0.73	0.63	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Acenaphthylene	<0.036		0.036	0.0047	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Acenaphthene	<0.036		0.036	0.0065	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Hexachlorobenzene	<0.073		0.073	0.0083	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Phenanthrene	0.065		0.036	0.0050	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Anthracene	0.017	J	0.036	0.0060	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Carbazole	<0.18		0.18	0.090	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Fluoranthene	0.12		0.036	0.0067	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Pyrene	0.13		0.036	0.0072	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Butyl benzyl phthalate	<0.18		0.18	0.068	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Benzo[a]anthracene	0.052		0.036	0.0048	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B12 (0-1)

Lab Sample ID: 500-107703-22

Date Collected: 02/17/16 14:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.064		0.036	0.0098	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Benzo[b]fluoranthene	0.10		0.036	0.0078	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Benzo[k]fluoranthene	0.046		0.036	0.011	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Benzo[a]pyrene	0.063		0.036	0.0070	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Indeno[1,2,3-cd]pyrene	0.026 J		0.036	0.0093	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0070	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
Benzo[g,h,i]perylene	0.026 J		0.036	0.012	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	02/22/16 17:16	03/01/16 14:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	73		25 - 110	02/22/16 17:16	03/01/16 14:49	1
Phenol-d5	75		31 - 110	02/22/16 17:16	03/01/16 14:49	1
Nitrobenzene-d5	61		25 - 115	02/22/16 17:16	03/01/16 14:49	1
2-Fluorobiphenyl	70		25 - 119	02/22/16 17:16	03/01/16 14:49	1
2,4,6-Tribromophenol	86		35 - 137	02/22/16 17:16	03/01/16 14:49	1
Terphenyl-d14	109		36 - 134	02/22/16 17:16	03/01/16 14:49	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1
Arsenic	2.7		0.54	0.25	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1
Barium	21		0.54	0.099	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1
Beryllium	0.13 J		0.22	0.047	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1
Boron	7.3		2.7	0.38	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1
Cadmium	0.080 J		0.11	0.031	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1
Calcium	170000 B		110	35	mg/Kg	☼	02/25/16 09:16	02/26/16 15:36	10
Chromium	9.2 B		0.54	0.093	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1
Cobalt	2.4		0.27	0.061	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1
Copper	8.4		0.54	0.12	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1
Iron	5600 B		11	4.2	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1
Lead	38		0.27	0.13	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1
Magnesium	100000 B		54	22	mg/Kg	☼	02/25/16 09:16	02/26/16 15:36	10
Manganese	220		0.54	0.11	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1
Nickel	6.4		0.54	0.15	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1
Potassium	480		27	4.4	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1
Selenium	<0.54		0.54	0.27	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1
Silver	0.11 J		0.27	0.063	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1
Sodium	930		54	7.1	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1
Vanadium	8.2		0.27	0.079	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1
Zinc	29		1.1	0.34	mg/Kg	☼	02/25/16 09:16	02/25/16 19:08	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.38 J		0.50	0.050	mg/L		02/23/16 16:06	02/24/16 14:17	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:06	02/24/16 14:17	1
Boron	0.60		0.50	0.050	mg/L		02/23/16 16:06	02/24/16 14:17	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B12 (0-1)

Lab Sample ID: 500-107703-22

Date Collected: 02/17/16 14:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:06	02/24/16 14:17	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:06	02/24/16 14:17	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:06	02/24/16 14:17	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:06	02/24/16 14:17	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/23/16 16:06	02/24/16 14:17	1
Manganese	1.7		0.025	0.010	mg/L		02/23/16 16:06	02/24/16 14:17	1
Nickel	0.021	J	0.025	0.010	mg/L		02/23/16 16:06	02/24/16 14:17	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:06	02/24/16 14:17	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:06	02/24/16 14:17	1
Zinc	0.16	J	0.50	0.020	mg/L		02/23/16 16:06	02/24/16 14:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.085		0.025	0.010	mg/L		02/23/16 16:13	02/29/16 12:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:06	02/25/16 19:25	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:06	02/25/16 19:25	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 13:38	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0089	mg/Kg	☼	02/23/16 13:30	02/25/16 14:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.84		0.200	0.200	SU			02/23/16 13:03	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B13 (0-1)

Lab Sample ID: 500-107703-23

Date Collected: 02/17/16 14:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 90.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0034	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Benzene	<0.0044		0.0044	0.00097	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Bromodichloromethane	<0.0044		0.0044	0.00074	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Bromoform	<0.0044		0.0044	0.00089	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Bromomethane	<0.0044		0.0044	0.0016	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
2-Butanone (MEK)	<0.0044		0.0044	0.0016	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Carbon disulfide	<0.0044		0.0044	0.0016	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Carbon tetrachloride	<0.0044		0.0044	0.00094	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Chlorobenzene	<0.0044		0.0044	0.0010	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Chloroethane	<0.0044		0.0044	0.0018	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Chloroform	<0.0044		0.0044	0.00085	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Chloromethane	<0.0044		0.0044	0.0011	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
cis-1,2-Dichloroethene	<0.0044		0.0044	0.00089	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
cis-1,3-Dichloropropene	<0.0044		0.0044	0.0010	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Dibromochloromethane	<0.0044		0.0044	0.00050	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
1,1-Dichloroethane	<0.0044		0.0044	0.00090	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
1,2-Dichloroethane	<0.0044		0.0044	0.00065	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
1,1-Dichloroethene	<0.0044		0.0044	0.0016	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
1,2-Dichloropropane	<0.0044		0.0044	0.0011	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
1,3-Dichloropropane, Total	<0.0044		0.0044	0.0012	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Ethylbenzene	<0.0044		0.0044	0.0011	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Methylene Chloride	<0.0044		0.0044	0.0033	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.00090	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Methyl tert-butyl ether	<0.0044		0.0044	0.0010	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Styrene	<0.0044		0.0044	0.0010	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
1,1,2,2-Tetrachloroethane	<0.0044		0.0044	0.00070	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Tetrachloroethene	<0.0044		0.0044	0.00091	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Toluene	<0.0044		0.0044	0.0015	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
trans-1,2-Dichloroethene	<0.0044		0.0044	0.0011	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
trans-1,3-Dichloropropene	<0.0044		0.0044	0.0012	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
1,1,1-Trichloroethane	<0.0044		0.0044	0.0010	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
1,1,2-Trichloroethane	<0.0044		0.0044	0.00085	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Trichloroethene	<0.0044		0.0044	0.0012	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Vinyl acetate	<0.0044	*	0.0044	0.0012	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Vinyl chloride	<0.0044		0.0044	0.0010	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1
Xylenes, Total	<0.0088		0.0088	0.0016	mg/Kg	☼	02/18/16 08:10	03/01/16 00:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 122	02/18/16 08:10	03/01/16 00:57	1
Dibromofluoromethane	108		75 - 120	02/18/16 08:10	03/01/16 00:57	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 134	02/18/16 08:10	03/01/16 00:57	1
Toluene-d8 (Surr)	109		75 - 122	02/18/16 08:10	03/01/16 00:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.077	mg/Kg	☼	02/22/16 17:16	03/01/16 15:14	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.052	mg/Kg	☼	02/22/16 17:16	03/01/16 15:14	1
1,3-Dichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	02/22/16 17:16	03/01/16 15:14	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	02/22/16 17:16	03/01/16 15:14	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B13 (0-1)

Lab Sample ID: 500-107703-23

Date Collected: 02/17/16 14:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 90.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
2-Methylphenol	<0.18		0.18	0.056	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.040	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
N-Nitrosodi-n-propylamine	<0.070		0.070	0.043	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Hexachloroethane	<0.18		0.18	0.053	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Nitrobenzene	<0.035		0.035	0.0087	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Isophorone	<0.18		0.18	0.039	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
2,4-Dichlorophenol	<0.35		0.35	0.083	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
4-Chloroaniline	<0.70		0.70	0.16	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
2,4,5-Trichlorophenol	<0.35		0.35	0.080	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Hexachlorocyclopentadiene	<0.70		0.70	0.20	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
2-Methylnaphthalene	<0.035		0.035	0.0064	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
2-Nitrophenol	<0.35		0.35	0.082	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
2,4-Dinitrophenol	<0.70		0.70	0.61	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Acenaphthylene	<0.035		0.035	0.0046	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
2,4-Dinitrotoluene	<0.18		0.18	0.055	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Acenaphthene	<0.035		0.035	0.0063	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
4-Nitrophenol	<0.70		0.70	0.33	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Fluorene	0.0055	J	0.035	0.0049	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Hexachlorobenzene	<0.070		0.070	0.0081	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Diethyl phthalate	<0.18		0.18	0.059	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Pentachlorophenol	<0.70		0.70	0.56	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
N-Nitrosodiphenylamine	<0.18		0.18	0.041	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
4,6-Dinitro-2-methylphenol	<0.70		0.70	0.28	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Phenanthrene	0.059		0.035	0.0049	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Anthracene	0.013	J	0.035	0.0058	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Carbazole	<0.18		0.18	0.087	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Di-n-butyl phthalate	<0.18		0.18	0.053	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Fluoranthene	0.089		0.035	0.0065	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Pyrene	0.11		0.035	0.0069	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Butyl benzyl phthalate	<0.18		0.18	0.066	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1
Benzo[a]anthracene	0.041		0.035	0.0047	mg/Kg	*	02/22/16 17:16	03/01/16 15:14	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B13 (0-1)

Lab Sample ID: 500-107703-23

Date Collected: 02/17/16 14:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 90.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.058		0.035	0.0095	mg/Kg	☼	02/22/16 17:16	03/01/16 15:14	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	02/22/16 17:16	03/01/16 15:14	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.064	mg/Kg	☼	02/22/16 17:16	03/01/16 15:14	1
Di-n-octyl phthalate	<0.18		0.18	0.057	mg/Kg	☼	02/22/16 17:16	03/01/16 15:14	1
Benzo[b]fluoranthene	0.087		0.035	0.0075	mg/Kg	☼	02/22/16 17:16	03/01/16 15:14	1
Benzo[k]fluoranthene	0.044		0.035	0.010	mg/Kg	☼	02/22/16 17:16	03/01/16 15:14	1
Benzo[a]pyrene	0.052		0.035	0.0067	mg/Kg	☼	02/22/16 17:16	03/01/16 15:14	1
Indeno[1,2,3-cd]pyrene	0.026	J	0.035	0.0090	mg/Kg	☼	02/22/16 17:16	03/01/16 15:14	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0067	mg/Kg	☼	02/22/16 17:16	03/01/16 15:14	1
Benzo[g,h,i]perylene	0.026	J	0.035	0.011	mg/Kg	☼	02/22/16 17:16	03/01/16 15:14	1
3 & 4 Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	02/22/16 17:16	03/01/16 15:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	85		25 - 110	02/22/16 17:16	03/01/16 15:14	1
Phenol-d5	84		31 - 110	02/22/16 17:16	03/01/16 15:14	1
Nitrobenzene-d5	73		25 - 115	02/22/16 17:16	03/01/16 15:14	1
2-Fluorobiphenyl	75		25 - 119	02/22/16 17:16	03/01/16 15:14	1
2,4,6-Tribromophenol	69		35 - 137	02/22/16 17:16	03/01/16 15:14	1
Terphenyl-d14	132		36 - 134	02/22/16 17:16	03/01/16 15:14	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.86		0.86	0.18	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1
Arsenic	4.9		0.43	0.20	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1
Barium	26		0.43	0.079	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1
Beryllium	0.15	J	0.17	0.037	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1
Boron	8.7		2.1	0.30	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1
Cadmium	0.052	J	0.086	0.025	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1
Calcium	170000	B	86	28	mg/Kg	☼	02/25/16 09:16	02/26/16 15:40	10
Chromium	6.3	B	0.43	0.074	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1
Cobalt	2.7		0.21	0.049	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1
Copper	9.9		0.43	0.093	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1
Iron	5400	B	8.6	3.3	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1
Lead	24		0.21	0.11	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1
Magnesium	98000	B	43	17	mg/Kg	☼	02/25/16 09:16	02/26/16 15:40	10
Manganese	290		0.43	0.085	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1
Nickel	6.3		0.43	0.12	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1
Potassium	500		21	3.5	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1
Selenium	<0.43		0.43	0.21	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1
Silver	<0.21		0.21	0.050	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1
Sodium	830		43	5.7	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1
Thallium	<0.43		0.43	0.21	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1
Vanadium	8.7		0.21	0.063	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1
Zinc	27		0.86	0.27	mg/Kg	☼	02/25/16 09:16	02/25/16 19:14	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.28	J	0.50	0.050	mg/L		02/23/16 16:06	02/24/16 14:24	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:06	02/24/16 14:24	1
Boron	0.26	J	0.50	0.050	mg/L		02/23/16 16:06	02/24/16 14:24	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B13 (0-1)

Lab Sample ID: 500-107703-23

Date Collected: 02/17/16 14:05

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 90.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:06	02/24/16 14:24	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:06	02/24/16 14:24	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:06	02/24/16 14:24	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:06	02/24/16 14:24	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/23/16 16:06	02/24/16 14:24	1
Manganese	1.2		0.025	0.010	mg/L		02/23/16 16:06	02/24/16 14:24	1
Nickel	0.013	J	0.025	0.010	mg/L		02/23/16 16:06	02/24/16 14:24	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:06	02/24/16 14:24	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:06	02/24/16 14:24	1
Zinc	0.33	J	0.50	0.020	mg/L		02/23/16 16:06	02/24/16 14:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.014	J	0.025	0.010	mg/L		02/23/16 16:13	02/29/16 12:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:06	02/25/16 19:29	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:06	02/25/16 19:29	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 13:40	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012	J	0.017	0.0091	mg/Kg	☼	02/23/16 13:30	02/25/16 14:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.35		0.200	0.200	SU			02/23/16 13:09	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

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

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
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.

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 Chicago

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 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 #: 500-107703

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter														Preservative Key	
E+E		1009341-0008-01																		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		Lab Project #																		Comments	
IL 38		50011804.0008.01																			
Project Location/State		Lab Project #																			
Kane County IL		50011804.0008.01																			
Sampler		Lab PM																			
S. Cooper		D. Wright																			
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOC	SVOC	Total TAL Metals	TCLP/SPLP TAL metals	PH/% Solids										
			Date	Time																	
9		3011-06-B04 (01)	2/17/16	0945	2	S	X	X	X	X	X										
10		3011-06-B11 (01)	2/17/16	1000	2	S	X	X	X	X	X										
11		3011-06-B09 (01)	2/17/16	1005	2	S	X	X	X	X	X										
12		3011-06-B07 (01)	2/17/16	1015	2	S	X	X	X	X	X										
13		3011-06-B05 (01)	2/17/16	1025	2	S	X	X	X	X	X										
14		3011-06-B02 (01)	2/17/16	1040	2	S	X	X	X	X	X										
15		3011-06-B01 (01)	2/17/16	1305	2	S	X	X	X	X	X										
16		3011-06-B01 (01) D	2/17/16	1305	2	S	X	X	X	X	X										
17		3011-06-B03 (01)	2/17/16	1370	2	S	X	X	X	X	X										
18		3011-06-B04 (01)	2/17/16	1375	2	S	X	X	X	X	X										

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>S. Cooper</u> Company: <u>E+E</u> Date: <u>2/17/16</u> Time: <u>1515</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/17/16</u> Time: <u>1515</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/17/16</u> Time: <u>1645</u>	Received By: <u>[Signature]</u> Company: <u>TA-CHI</u> Date: <u>2/18/16</u> Time: <u>0730</u>
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____

Lab Courier: [Signature]
 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 C - Other
 A - Air

Client Comments:

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 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 #: 500-107703

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments			
EE		1009341-020801								Preservative Key 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		Lab Project #											
FL 38		50011864											
Project Location/State		Lab PM											
Kane County, IL		P. Wright											
Sampler													
S-Cooper													
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOC	SVOC	Total TAC	TEMP/STP	TAC Method	pH/°C Solids	Comments
			Date	Time									
19		3011-06-B06 (01)	2/17/16	1745	2	S	X	X	X	X	X		
20		3011-06-B08 (01)	2/17/16	1750	2	S	X	X	X	X	X		
21		3011-06-B10 (01)	2/17/16	1755	2	S	X	X	X	X	X		
22		3011-06-B12 (01)	2/17/16	1800	2	S	X	X	X	X	X		
23		3011-06-B13 (01)	2/17/16	1805	2	S	X	X	X	X	X		

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>[Signature]</u>	Company: <u>LC</u>	Date: <u>2-17-16</u>	Time: <u>1515</u>	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/18/16</u>	Time: <u>1515</u>
Relinquished By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1645</u>	Received By: <u>[Signature]</u>	Company: <u>TA-CERT</u>	Date: <u>2/18/16</u>	Time: <u>0930</u>
Relinquished By: _____	Company: _____	Date: _____	Time: _____	Received By: _____	Company: _____	Date: _____	Time: _____

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:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107703-3

Login Number: 107703

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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: 500-107704-1
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
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LINKS

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-1

Job ID: 500-107704-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107704-1

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-324220: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 500-324220 recovered outside control limits for the following analyte: Acetone.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-07-B01 (0-1) (500-107704-1), (MB 500-324045/1-A) and (500-107704-E-1-C MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324448 and analytical batch 500-324695 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-1

Client Sample ID: 3011-07-B01 (0-1)

Lab Sample ID: 500-107704-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0086	J	0.038	0.0059	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.016	J	0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.0061	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.095		0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.018	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.22		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.21		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.10		0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.12		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.086	J	0.19	0.070	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.21		0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.076		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.12		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.049		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.059		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.6		0.56	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	40		0.56	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.35		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	7.2		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	120000	B	110	36	mg/Kg	10	☼	6010B	Total/NA
Chromium	15	B	0.56	0.096	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.5		0.28	0.063	mg/Kg	1	☼	6010B	Total/NA
Copper	13	B	0.56	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	8900	B	11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	100		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	72000	B	56	23	mg/Kg	10	☼	6010B	Total/NA
Manganese	350	B	0.56	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	11		0.56	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	640	F1	28	4.6	mg/Kg	1	☼	6010B	Total/NA
Sodium	1400	F1 B	56	7.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.28	0.082	mg/Kg	1	☼	6010B	Total/NA
Zinc	79	F1	11	3.5	mg/Kg	10	☼	6010B	Total/NA
Barium	0.40	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.072	J	0.50	0.050	mg/L	1		6010B	TCLP
Lead	0.0099		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	1.4		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.11	J B	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.64		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	2.2		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.017		0.017	0.0091	mg/Kg	1	☼	7471B	Total/NA
pH	8.63		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107704-1	3011-07-B01 (0-1)	Solid	02/17/16 10:35	02/18/16 07:30

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-1

Client Sample ID: 3011-07-B01 (0-1)

Lab Sample ID: 500-107704-1

Date Collected: 02/17/16 10:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017	*	0.017	0.0033	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Benzene	<0.0043		0.0043	0.00095	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Bromodichloromethane	<0.0043		0.0043	0.00072	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Bromoform	<0.0043		0.0043	0.00087	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Bromomethane	<0.0043	*	0.0043	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
2-Butanone (MEK)	<0.0043		0.0043	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Carbon disulfide	<0.0043		0.0043	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Carbon tetrachloride	<0.0043		0.0043	0.00091	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Chlorobenzene	<0.0043		0.0043	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Chloroethane	<0.0043		0.0043	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Chloroform	<0.0043		0.0043	0.00083	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Chloromethane	<0.0043		0.0043	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
cis-1,2-Dichloroethene	<0.0043		0.0043	0.00087	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
cis-1,3-Dichloropropene	<0.0043		0.0043	0.00097	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Dibromochloromethane	<0.0043		0.0043	0.00049	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
1,1-Dichloroethane	<0.0043		0.0043	0.00088	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
1,2-Dichloroethane	<0.0043		0.0043	0.00063	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
1,1-Dichloroethene	<0.0043		0.0043	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
1,2-Dichloropropane	<0.0043		0.0043	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
1,3-Dichloropropane, Total	<0.0043		0.0043	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Ethylbenzene	<0.0043		0.0043	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Methylene Chloride	<0.0043		0.0043	0.0032	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.00088	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Methyl tert-butyl ether	<0.0043		0.0043	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Styrene	<0.0043		0.0043	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
1,1,2,2-Tetrachloroethane	<0.0043		0.0043	0.00068	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Tetrachloroethene	<0.0043		0.0043	0.00089	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Toluene	<0.0043		0.0043	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
trans-1,2-Dichloroethene	<0.0043		0.0043	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
trans-1,3-Dichloropropene	<0.0043		0.0043	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
1,1,1-Trichloroethane	<0.0043		0.0043	0.00099	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
1,1,2-Trichloroethane	<0.0043		0.0043	0.00083	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Trichloroethene	<0.0043		0.0043	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Vinyl acetate	<0.0043		0.0043	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Vinyl chloride	<0.0043		0.0043	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Xylenes, Total	<0.0085		0.0085	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 122	02/18/16 08:10	02/24/16 16:11	1
Dibromofluoromethane	109		75 - 120	02/18/16 08:10	02/24/16 16:11	1
1,2-Dichloroethane-d4 (Surr)	116		70 - 134	02/18/16 08:10	02/24/16 16:11	1
Toluene-d8 (Surr)	107		75 - 122	02/18/16 08:10	02/24/16 16:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-1

Client Sample ID: 3011-07-B01 (0-1)

Lab Sample ID: 500-107704-1

Date Collected: 02/17/16 10:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Naphthalene	0.0086	J	0.038	0.0059	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2-Methylnaphthalene	0.016	J	0.038	0.0071	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Acenaphthylene	0.0061	J	0.038	0.0051	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Phenanthrene	0.095		0.038	0.0054	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Anthracene	0.018	J	0.038	0.0064	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Fluoranthene	0.22		0.038	0.0071	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Pyrene	0.21		0.038	0.0076	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Benzo[a]anthracene	0.10		0.038	0.0052	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-1

Client Sample ID: 3011-07-B01 (0-1)

Lab Sample ID: 500-107704-1

Date Collected: 02/17/16 10:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.12		0.038	0.010	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Bis(2-ethylhexyl) phthalate	0.086	J	0.19	0.070	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Benzo[b]fluoranthene	0.21		0.038	0.0083	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Benzo[k]fluoranthene	0.076		0.038	0.011	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Benzo[a]pyrene	0.12		0.038	0.0074	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Indeno[1,2,3-cd]pyrene	0.049		0.038	0.010	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Benzo[g,h,i]perylene	0.059		0.038	0.012	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	98		25 - 110	02/23/16 07:20	02/28/16 17:57	1
Phenol-d5	99		31 - 110	02/23/16 07:20	02/28/16 17:57	1
Nitrobenzene-d5	91		25 - 115	02/23/16 07:20	02/28/16 17:57	1
2-Fluorobiphenyl	88		25 - 119	02/23/16 07:20	02/28/16 17:57	1
2,4,6-Tribromophenol	93		35 - 137	02/23/16 07:20	02/28/16 17:57	1
Terphenyl-d14	115		36 - 134	02/23/16 07:20	02/28/16 17:57	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1	F1	1.1	0.23	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Arsenic	3.6		0.56	0.26	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Barium	40		0.56	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Beryllium	0.35		0.22	0.048	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Boron	7.2		2.8	0.39	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Cadmium	0.18		0.11	0.032	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Calcium	120000	B	110	36	mg/Kg	☼	02/25/16 15:15	02/28/16 00:09	10
Chromium	15	B	0.56	0.096	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Cobalt	4.5		0.28	0.063	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Copper	13	B	0.56	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Iron	8900	B	11	4.3	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Lead	100		0.28	0.14	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Magnesium	72000	B	56	23	mg/Kg	☼	02/25/16 15:15	02/28/16 00:09	10
Manganese	350	B	0.56	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Nickel	11		0.56	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Potassium	640	F1	28	4.6	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Selenium	<0.56		0.56	0.28	mg/Kg	☼	02/25/16 15:15	02/29/16 13:27	1
Silver	<0.28		0.28	0.065	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Sodium	1400	F1 B	56	7.4	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Thallium	<0.56		0.56	0.27	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Vanadium	15		0.28	0.082	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Zinc	79	F1	11	3.5	mg/Kg	☼	02/25/16 15:15	02/28/16 00:09	10

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.40	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 18:59	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 18:59	1
Boron	0.072	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 18:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-1

Client Sample ID: 3011-07-B01 (0-1)

Lab Sample ID: 500-107704-1

Date Collected: 02/17/16 10:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 18:59	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 18:59	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 18:59	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 18:59	1
Lead	0.0099		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 18:59	1
Manganese	1.4		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 18:59	1
Nickel	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 18:59	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 18:59	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 18:59	1
Zinc	0.11	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 18:59	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.64		0.0075	0.0075	mg/L		02/25/16 08:29	02/28/16 03:01	1
Manganese	2.2		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 03:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 19:42	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 19:42	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:11	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017		0.017	0.0091	mg/Kg	☼	02/23/16 15:15	02/24/16 11:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.63		0.200	0.200	SU			02/23/16 13:14	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
X	Surrogate is outside control limits

Metals

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.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
F3	Duplicate RPD exceeds the control limit
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.

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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-1

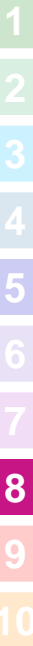
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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



TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 6
Phone: 708.534.5200 Fax: 708.53



500-107704 COC

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 #: 500-107704

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler 3, 4, 2, 9, 2, 4, 3, 3

Client		Client Project #		Preservative		Parameter		Matrix		Comments		
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix						
1		3011-07-001 (01)	2/17/16	1035	2	S	Vu	SUC	Zet-1 700 Multi	700/1500 700 Pad 4	11/4/16 S/W	
2												

- Preservative Key
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

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>[Signature]</u>	Company: <u>UV</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>
Relinquished By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1645</u>	Received By: <u>[Signature]</u>	Company: <u>TA-OPE</u>	Date: <u>2/18/16</u>	Time: <u>0730</u>

Lab Courier: TA

Shipped: _____

Hand Delivered: _____

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

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107704-1

Login Number: 107704

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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: 500-107704-2
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 1:00:16 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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results through
TotalAccess

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Visit us at:
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.

1

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Receipt Checklists	13

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-2

Job ID: 500-107704-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107704-2

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-324220: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 500-324220 recovered outside control limits for the following analyte: Acetone.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-08-B01 (0-1) (500-107704-2), (MB 500-324045/1-A), (500-107704-E-1-A), (500-107704-E-1-B MS) and (500-107704-E-1-C MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324448 and analytical batch 500-324695 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-2

Client Sample ID: 3011-08-B01 (0-1)

Lab Sample ID: 500-107704-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0079	J	0.037	0.0058	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.0086	J	0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.021	J	0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.010	J	0.037	0.0068	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.012	J	0.037	0.0053	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.15		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.035	J	0.037	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.29		0.037	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.46		0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.18		0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.20		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.32		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.14		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.20		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.075		0.037	0.0098	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.084		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.0		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	59		0.54	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.38		0.22	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	6.5		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	10000	B	110	35	mg/Kg	10	☼	6010B	Total/NA
Chromium	11	B	0.54	0.094	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.9		0.27	0.062	mg/Kg	1	☼	6010B	Total/NA
Copper	12	B	0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	11000	B	11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	49		0.27	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	38000	B	5.4	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	420	B	0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	850		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.35	J	0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	2200	B	54	7.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.27	0.079	mg/Kg	1	☼	6010B	Total/NA
Zinc	51		1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.48	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.086	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.99		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.62	B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.94	F1	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.012	J	0.019	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.77		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107704-2	3011-08-B01 (0-1)	Solid	02/17/16 09:55	02/18/16 07:30

1

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-2

Client Sample ID: 3011-08-B01 (0-1)

Lab Sample ID: 500-107704-2

Date Collected: 02/17/16 09:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020	*	0.020	0.0038	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Benzene	<0.0049		0.0049	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Bromodichloromethane	<0.0049		0.0049	0.00083	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Bromoform	<0.0049		0.0049	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Bromomethane	<0.0049	*	0.0049	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
2-Butanone (MEK)	<0.0049		0.0049	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Carbon disulfide	<0.0049		0.0049	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Carbon tetrachloride	<0.0049		0.0049	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Chlorobenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Chloroethane	<0.0049		0.0049	0.0021	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Chloroform	<0.0049		0.0049	0.00095	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Chloromethane	<0.0049		0.0049	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
cis-1,2-Dichloroethene	<0.0049		0.0049	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
cis-1,3-Dichloropropene	<0.0049		0.0049	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Dibromochloromethane	<0.0049		0.0049	0.00056	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
1,1-Dichloroethane	<0.0049		0.0049	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
1,2-Dichloroethane	<0.0049		0.0049	0.00072	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
1,1-Dichloroethene	<0.0049		0.0049	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
1,2-Dichloropropane	<0.0049		0.0049	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
1,3-Dichloropropane, Total	<0.0049		0.0049	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Ethylbenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Methylene Chloride	<0.0049		0.0049	0.0037	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Methyl tert-butyl ether	<0.0049		0.0049	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Styrene	<0.0049		0.0049	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
1,1,2,2-Tetrachloroethane	<0.0049		0.0049	0.00078	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Tetrachloroethene	<0.0049		0.0049	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Toluene	<0.0049		0.0049	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
trans-1,2-Dichloroethene	<0.0049		0.0049	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
trans-1,3-Dichloropropene	<0.0049		0.0049	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
1,1,1-Trichloroethane	<0.0049		0.0049	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
1,1,2-Trichloroethane	<0.0049		0.0049	0.00095	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Trichloroethene	<0.0049		0.0049	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Vinyl acetate	<0.0049		0.0049	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Vinyl chloride	<0.0049		0.0049	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Xylenes, Total	<0.0098		0.0098	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 122	02/18/16 08:10	02/24/16 16:36	1
Dibromofluoromethane	108		75 - 120	02/18/16 08:10	02/24/16 16:36	1
1,2-Dichloroethane-d4 (Surr)	116		70 - 134	02/18/16 08:10	02/24/16 16:36	1
Toluene-d8 (Surr)	111		75 - 122	02/18/16 08:10	02/24/16 16:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-2

Client Sample ID: 3011-08-B01 (0-1)

Lab Sample ID: 500-107704-2

Date Collected: 02/17/16 09:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Naphthalene	0.0079	J	0.037	0.0058	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2-Methylnaphthalene	0.0086	J	0.037	0.0069	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Acenaphthylene	0.021	J	0.037	0.0050	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Acenaphthene	0.010	J	0.037	0.0068	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Fluorene	0.012	J	0.037	0.0053	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Phenanthrene	0.15		0.037	0.0052	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Anthracene	0.035	J	0.037	0.0063	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Fluoranthene	0.29		0.037	0.0070	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Pyrene	0.46		0.037	0.0075	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Benzo[a]anthracene	0.18		0.037	0.0051	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-2

Client Sample ID: 3011-08-B01 (0-1)

Lab Sample ID: 500-107704-2

Date Collected: 02/17/16 09:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.20		0.037	0.010	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Benzo[b]fluoranthene	0.32		0.037	0.0081	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Benzo[k]fluoranthene	0.14		0.037	0.011	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Benzo[a]pyrene	0.20		0.037	0.0073	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Indeno[1,2,3-cd]pyrene	0.075		0.037	0.0098	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Benzo[g,h,i]perylene	0.084		0.037	0.012	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	96		25 - 110	02/23/16 07:20	02/29/16 14:59	1
Phenol-d5	91		31 - 110	02/23/16 07:20	02/29/16 14:59	1
Nitrobenzene-d5	89		25 - 115	02/23/16 07:20	02/29/16 14:59	1
2-Fluorobiphenyl	92		25 - 119	02/23/16 07:20	02/29/16 14:59	1
2,4,6-Tribromophenol	70		35 - 137	02/23/16 07:20	02/29/16 14:59	1
Terphenyl-d14	161	X	36 - 134	02/23/16 07:20	02/29/16 14:59	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	☼	02/25/16 15:15	02/26/16 20:55	1
Arsenic	5.0		0.54	0.25	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Barium	59		0.54	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Beryllium	0.38		0.22	0.047	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Boron	6.5		2.7	0.38	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Cadmium	0.12		0.11	0.032	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Calcium	100000	B	110	35	mg/Kg	☼	02/25/16 15:15	02/28/16 00:29	10
Chromium	11	B	0.54	0.094	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Cobalt	5.9		0.27	0.062	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Copper	12	B	0.54	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Iron	11000	B	11	4.2	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Lead	49		0.27	0.14	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Magnesium	38000	B	5.4	2.2	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Manganese	420	B	0.54	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Nickel	13		0.54	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Potassium	850		27	4.4	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Selenium	0.35	J	0.54	0.27	mg/Kg	☼	02/25/16 15:15	02/28/16 00:14	1
Silver	<0.27		0.27	0.064	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Sodium	2200	B	54	7.2	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Vanadium	18		0.27	0.079	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Zinc	51		1.1	0.34	mg/Kg	☼	02/25/16 15:15	02/28/16 00:14	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.48	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 19:41	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 19:41	1
Boron	0.086	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 19:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-2

Client Sample ID: 3011-08-B01 (0-1)

Lab Sample ID: 500-107704-2

Date Collected: 02/17/16 09:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 19:41	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:41	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:41	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 19:41	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 19:41	1
Manganese	0.99		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:41	1
Nickel	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:41	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 19:41	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:41	1
Zinc	0.62	B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 19:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.94	F1	0.025	0.010	mg/L		02/25/16 08:29	02/28/16 03:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 19:58	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 19:58	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:13	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012	J	0.019	0.010	mg/Kg	☼	02/23/16 15:15	02/24/16 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.77		0.200	0.200	SU			02/23/16 13:19	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

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.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-2

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

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

Chain of Custody Record

Lab Job #: 500-107704

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
Project Name		Lab Project #		SAMPLING		# of Containers		Matrix			
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix					
E&E		1009341.0008.01								Preservative Key 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	
IL 38		50011804.0008.01									
Kane County IL		D Wright								VOC SVOC Total TAL metals TCLP/SPLP TAL metals PTH % Solids	
S Cooper											
2		3011-08-B01 (01)	2/17/16	0955	2	S	X	X	X	X	

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>[Signature]</u> Company: <u>ISE</u> Date: <u>2/17/16</u> Time: <u>1515</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/17/16</u> Time: <u>1515</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/17/16</u> Time: <u>1645</u>	Received By: <u>[Signature]</u> Company: <u>TA-CPT</u> Date: <u>2/18/16</u> Time: <u>0730</u>

Lab Courier: TA

Shipped: _____

Hand Delivered: _____

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

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107704-2

Login Number: 107704

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 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: FAP 347 (IL Route 38) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
50W 066 IL 38 ISGS #3011-7 (Residence)

City: Maple Park State: IL Zip Code: 60151

County: Kane Township: Virgil

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

Latitude: 41.89433344 Longitude: -88.58617119
(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: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: 60196-1096 Phone: 847-705-4159

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

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 an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 347 (IL Route 38)Latitude: 41.89433344 Longitude: -88.58617119Uncontaminated 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 appropriately located 35 Ill. Adm. Code 1100.610(a):

Location 3011-07-B01 was sampled within the construction zone adjacent to ISGS #3011-7 (Residence). Refer to PSI Report for ISGS #3011-7 (Residence) including Table 4-4, and Figures 4-1A&B.

- 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]:

See attached data summary table and associated laboratory data package J107704-1.

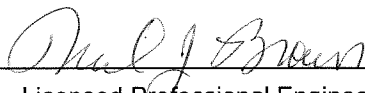
IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

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

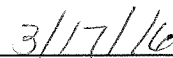
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Ecology and Environment, Inc.Street Address: 33 West Monroe StreetCity: Chicago State: IL Zip Code: 60603Phone: 312-578-9243Neil J. Brown

Printed Name:



Licensed Professional Engineer or
Licensed Professional Geologist Signature:



Date:



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




Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A

Key to Data Tables

- MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

Criteria Qualifiers and Shading

- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-7 (Residence)	Comparison Criteria			
BORING	3011-07-B01	MACs			TACO
SAMPLE	3011-07-B01 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.63				
VOCs (None Detected)					
SVOCs (mg/kg)					
2-Methylnaphthalene	0.016 J	--	--	--	--
Acenaphthylene	0.0061 J	--	--	--	--
Anthracene	0.018 J	12,000	--	--	--
Benzo[a]anthracene	0.1	0.9	1.8	1.1	--
Benzo[a]pyrene	0.12 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.21	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.059 J	--	--	--	--
Benzo[k]fluoranthene	0.076	9	--	--	--
Bis(2-ethylhexyl) phthalate	0.086 J	46	--	--	--
Chrysene	0.12	88	--	--	--
Fluoranthene	0.22	3,100	--	--	--
Indeno[1,2,3-cd]pyrene	0.049	0.9	1.6	0.9	--
Naphthalene	0.0086 J	1.8	--	--	--
Phenanthrene	0.095	--	--	--	--
Pyrene	0.21 J	2,300	--	--	--
Inorganics (mg/kg)					
Arsenic	3.6	11.3	13	--	--
Barium	40	1,500	--	--	--
Beryllium	0.35	22	--	--	--
Boron	7.2	40	--	--	--
Cadmium	0.18	5.2	--	--	--
Calcium	120,000	--	--	--	--
Chromium	15 J	21	--	--	--
Cobalt	4.5	20	--	--	--
Copper	13	2,900	--	--	--
Iron	8,900	15,000	15,900	--	--
Lead	100	107	--	--	--
Magnesium	72,000	325,000	--	--	--
Manganese	350	630	636	--	--
Mercury	0.017	0.89	--	--	--
Nickel	11	100	--	--	--
Potassium	640 J	--	--	--	--
Sodium	1,400 J	--	--	--	--
Vanadium	15	550	--	--	--
Zinc	79 J	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.4 J	--	--	--	2
Boron	0.072 J	--	--	--	2
Lead	0.0099 L	--	--	--	0.0075
Manganese	1.4 L	--	--	--	0.15
SPLP Metals (mg/L)					
Lead	0.64 L	--	--	--	0.0075
Manganese	2.2 L	--	--	--	0.15

TestAmerica

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ANALYTICAL REPORT

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

TestAmerica Job ID: 500-107704-1
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 12:59:37 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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-1

Job ID: 500-107704-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107704-1

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-324220: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 500-324220 recovered outside control limits for the following analyte: Acetone.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-07-B01 (0-1) (500-107704-1), (MB 500-324045/1-A) and (500-107704-E-1-C MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324448 and analytical batch 500-324695 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-1

Client Sample ID: 3011-07-B01 (0-1)

Lab Sample ID: 500-107704-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0086	J	0.038	0.0059	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.016	J	0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.0061	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.095		0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.018	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.22		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.21		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.10		0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.12		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.086	J	0.19	0.070	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.21		0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.076		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.12		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.049		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.059		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.6		0.56	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	40		0.56	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.35		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	7.2		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	120000	B	110	36	mg/Kg	10	☼	6010B	Total/NA
Chromium	15	B	0.56	0.096	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.5		0.28	0.063	mg/Kg	1	☼	6010B	Total/NA
Copper	13	B	0.56	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	8900	B	11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	100		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	72000	B	56	23	mg/Kg	10	☼	6010B	Total/NA
Manganese	350	B	0.56	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	11		0.56	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	640	F1	28	4.6	mg/Kg	1	☼	6010B	Total/NA
Sodium	1400	F1 B	56	7.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.28	0.082	mg/Kg	1	☼	6010B	Total/NA
Zinc	79	F1	11	3.5	mg/Kg	10	☼	6010B	Total/NA
Barium	0.40	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.072	J	0.50	0.050	mg/L	1		6010B	TCLP
Lead	0.0099		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	1.4		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.11	J B	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.64		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	2.2		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.017		0.017	0.0091	mg/Kg	1	☼	7471B	Total/NA
pH	8.63		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107704-1	3011-07-B01 (0-1)	Solid	02/17/16 10:35	02/18/16 07:30

1

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-1

Client Sample ID: 3011-07-B01 (0-1)

Lab Sample ID: 500-107704-1

Date Collected: 02/17/16 10:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017	*	0.017	0.0033	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Benzene	<0.0043		0.0043	0.00095	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Bromodichloromethane	<0.0043		0.0043	0.00072	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Bromoform	<0.0043		0.0043	0.00087	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Bromomethane	<0.0043	*	0.0043	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
2-Butanone (MEK)	<0.0043		0.0043	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Carbon disulfide	<0.0043		0.0043	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Carbon tetrachloride	<0.0043		0.0043	0.00091	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Chlorobenzene	<0.0043		0.0043	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Chloroethane	<0.0043		0.0043	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Chloroform	<0.0043		0.0043	0.00083	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Chloromethane	<0.0043		0.0043	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
cis-1,2-Dichloroethene	<0.0043		0.0043	0.00087	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
cis-1,3-Dichloropropene	<0.0043		0.0043	0.00097	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Dibromochloromethane	<0.0043		0.0043	0.00049	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
1,1-Dichloroethane	<0.0043		0.0043	0.00088	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
1,2-Dichloroethane	<0.0043		0.0043	0.00063	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
1,1-Dichloroethene	<0.0043		0.0043	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
1,2-Dichloropropane	<0.0043		0.0043	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
1,3-Dichloropropane, Total	<0.0043		0.0043	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Ethylbenzene	<0.0043		0.0043	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Methylene Chloride	<0.0043		0.0043	0.0032	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.00088	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Methyl tert-butyl ether	<0.0043		0.0043	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Styrene	<0.0043		0.0043	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
1,1,2,2-Tetrachloroethane	<0.0043		0.0043	0.00068	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Tetrachloroethene	<0.0043		0.0043	0.00089	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Toluene	<0.0043		0.0043	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
trans-1,2-Dichloroethene	<0.0043		0.0043	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
trans-1,3-Dichloropropene	<0.0043		0.0043	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
1,1,1-Trichloroethane	<0.0043		0.0043	0.00099	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
1,1,2-Trichloroethane	<0.0043		0.0043	0.00083	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Trichloroethene	<0.0043		0.0043	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Vinyl acetate	<0.0043		0.0043	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Vinyl chloride	<0.0043		0.0043	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1
Xylenes, Total	<0.0085		0.0085	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 16:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 122	02/18/16 08:10	02/24/16 16:11	1
Dibromofluoromethane	109		75 - 120	02/18/16 08:10	02/24/16 16:11	1
1,2-Dichloroethane-d4 (Surr)	116		70 - 134	02/18/16 08:10	02/24/16 16:11	1
Toluene-d8 (Surr)	107		75 - 122	02/18/16 08:10	02/24/16 16:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-1

Client Sample ID: 3011-07-B01 (0-1)

Lab Sample ID: 500-107704-1

Date Collected: 02/17/16 10:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Naphthalene	0.0086	J	0.038	0.0059	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2-Methylnaphthalene	0.016	J	0.038	0.0071	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Acenaphthylene	0.0061	J	0.038	0.0051	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Phenanthrene	0.095		0.038	0.0054	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Anthracene	0.018	J	0.038	0.0064	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Fluoranthene	0.22		0.038	0.0071	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Pyrene	0.21		0.038	0.0076	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Benzo[a]anthracene	0.10		0.038	0.0052	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-1

Client Sample ID: 3011-07-B01 (0-1)

Lab Sample ID: 500-107704-1

Date Collected: 02/17/16 10:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.12		0.038	0.010	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Bis(2-ethylhexyl) phthalate	0.086	J	0.19	0.070	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Benzo[b]fluoranthene	0.21		0.038	0.0083	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Benzo[k]fluoranthene	0.076		0.038	0.011	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Benzo[a]pyrene	0.12		0.038	0.0074	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Indeno[1,2,3-cd]pyrene	0.049		0.038	0.010	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
Benzo[g,h,i]perylene	0.059		0.038	0.012	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:20	02/28/16 17:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	98		25 - 110	02/23/16 07:20	02/28/16 17:57	1
Phenol-d5	99		31 - 110	02/23/16 07:20	02/28/16 17:57	1
Nitrobenzene-d5	91		25 - 115	02/23/16 07:20	02/28/16 17:57	1
2-Fluorobiphenyl	88		25 - 119	02/23/16 07:20	02/28/16 17:57	1
2,4,6-Tribromophenol	93		35 - 137	02/23/16 07:20	02/28/16 17:57	1
Terphenyl-d14	115		36 - 134	02/23/16 07:20	02/28/16 17:57	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1	F1	1.1	0.23	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Arsenic	3.6		0.56	0.26	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Barium	40		0.56	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Beryllium	0.35		0.22	0.048	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Boron	7.2		2.8	0.39	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Cadmium	0.18		0.11	0.032	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Calcium	120000	B	110	36	mg/Kg	☼	02/25/16 15:15	02/28/16 00:09	10
Chromium	15	B	0.56	0.096	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Cobalt	4.5		0.28	0.063	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Copper	13	B	0.56	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Iron	8900	B	11	4.3	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Lead	100		0.28	0.14	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Magnesium	72000	B	56	23	mg/Kg	☼	02/25/16 15:15	02/28/16 00:09	10
Manganese	350	B	0.56	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Nickel	11		0.56	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Potassium	640	F1	28	4.6	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Selenium	<0.56		0.56	0.28	mg/Kg	☼	02/25/16 15:15	02/29/16 13:27	1
Silver	<0.28		0.28	0.065	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Sodium	1400	F1 B	56	7.4	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Thallium	<0.56		0.56	0.27	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Vanadium	15		0.28	0.082	mg/Kg	☼	02/25/16 15:15	02/26/16 20:23	1
Zinc	79	F1	11	3.5	mg/Kg	☼	02/25/16 15:15	02/28/16 00:09	10

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.40	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 18:59	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 18:59	1
Boron	0.072	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 18:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-1

Client Sample ID: 3011-07-B01 (0-1)

Lab Sample ID: 500-107704-1

Date Collected: 02/17/16 10:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 18:59	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 18:59	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 18:59	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 18:59	1
Lead	0.0099		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 18:59	1
Manganese	1.4		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 18:59	1
Nickel	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 18:59	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 18:59	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 18:59	1
Zinc	0.11	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 18:59	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.64		0.0075	0.0075	mg/L		02/25/16 08:29	02/28/16 03:01	1
Manganese	2.2		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 03:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 19:42	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 19:42	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:11	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017		0.017	0.0091	mg/Kg	☼	02/23/16 15:15	02/24/16 11:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.63		0.200	0.200	SU			02/23/16 13:14	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
X	Surrogate is outside control limits

Metals

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.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
F3	Duplicate RPD exceeds the control limit
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.

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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-1

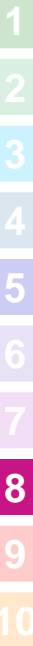
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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



TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 6
Phone: 708.534.5200 Fax: 708.53



500-107704 COC

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 #: 500-107704

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler 3, 4, 2, 9, 2, 4, 3, 3

Client		Client Project #		Preservative		Parameter		Matrix		Comments		
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix						
1		3011-07-001 (01)	2/17/16	1635	25	S	Vu	SUC	Zet-1 700 Multi	700/1500 700 Pad 4	11/4/16 S/W	
2												

- Preservative Key
- HCL, Cool to 4°
 - H2SO4, Cool to 4°
 - HNO3, Cool to 4°
 - NaOH, Cool to 4°
 - NaOH/Zn, Cool to 4°
 - NaHSO4
 - Cool to 4°
 - None
 - Other

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>[Signature]</u>	Company: <u>UV</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>
Relinquished By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1645</u>	Received By: <u>[Signature]</u>	Company: <u>TA-CH</u>	Date: <u>2/18/16</u>	Time: <u>0730</u>

Lab Courier: TA

Shipped: _____

Hand Delivered: _____

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

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107704-1

Login Number: 107704

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 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: FAP 347 (IL Route 38) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
49W 588 IL 38 ISGS #3011-8 (Farmstead)

City: Maple Park State: IL Zip Code: 60151

County: Kane Township: Virgil

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

Latitude: 41.8943277 Longitude: -88.57720664
(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: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: 60196-1096 Phone: 847-705-4159

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

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 an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 347 (IL Route 38)

Latitude: 41.8943277 Longitude: -88.57720664

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 appropriately located 35 Ill. Adm. Code 1100.610(a):

Location 3011-08-B01 and 3011-06-B14 were sampled within the construction zone adjacent to ISGS #3011-8 (Farmstead). Refer to PSI Report for ISGS #3011-8 (Farmstead) including Table 4-4, and Figures 4-2A&B.

- 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]:

See attached data summary table and associated laboratory data package J107704-2 and J107703-3

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

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

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

Company Name: Ecology and Environment, Inc.

Street Address: 33 West Monroe Street

City: Chicago State: IL Zip Code: 60603

Phone: 312-578-9243

Neil J. Brown

Printed Name:



Licensed Professional Engineer or
Licensed Professional Geologist Signature:

3/17/16

Date:



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




Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A

Key to Data Tables

- MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

Criteria Qualifiers and Shading

- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-8 (Farmstead)	Comparison Criteria			
BORING	3011-08-B01	MACs			TACO
SAMPLE	3011-08-B01 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.77				
VOCs (None Detected)					
SVOCs (mg/kg)					
2-Methylnaphthalene	0.0086 J	--	--	--	--
Acenaphthene	0.01 J	570	--	--	--
Acenaphthylene	0.021 J	--	--	--	--
Anthracene	0.035 J	12,000	--	--	--
Benzo[a]anthracene	0.18	0.9	1.8	1.1	--
Benzo[a]pyrene	0.2 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.32	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.084	--	--	--	--
Benzo[k]fluoranthene	0.14	9	--	--	--
Chrysene	0.2	88	--	--	--
Fluoranthene	0.29	3,100	--	--	--
Fluorene	0.012 J	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.075	0.9	1.6	0.9	--
Naphthalene	0.0079 J	1.8	--	--	--
Phenanthrene	0.15	--	--	--	--
Pyrene	0.46	2,300	--	--	--
Inorganics (mg/kg)					
Arsenic	5	11.3	13	--	--
Barium	59	1,500	--	--	--
Beryllium	0.38	22	--	--	--
Boron	6.5	40	--	--	--
Cadmium	0.12	5.2	--	--	--
Calcium	100,000	--	--	--	--
Chromium	11	21	--	--	--
Cobalt	5.9	20	--	--	--
Copper	12	2,900	--	--	--
Iron	11,000	15,000	15,900	--	--
Lead	49	107	--	--	--
Magnesium	38,000	325,000	--	--	--
Manganese	420	630	636	--	--
Mercury	0.012 J	0.89	--	--	--
Nickel	13	100	--	--	--
Potassium	850	--	--	--	--
Selenium	0.35 J	1.3	--	--	--
Sodium	2,200	--	--	--	--
Vanadium	18	550	--	--	--
Zinc	51	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.48 J	--	--	--	2
Boron	0.086 J	--	--	--	2
Manganese	0.99 L	--	--	--	0.15
Zinc	0.62	--	--	--	5
SPLP Metals (mg/L)					
Manganese	0.94 J L	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-6 (Agricultural Land)	Comparison Criteria			
		MACs			TACO
BORING	3011-06-B14				
SAMPLE	3011-06-B14 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.98				
VOCs (mg/kg)					
Acetone	ND U	25	--	--	--
Methyl tert-butyl ether	0.057 J	0.32	--	--	--
SVOCs (mg/kg)					
2-Methylnaphthalene	ND U	--	--	--	--
Acenaphthene	ND U	570	--	--	--
Acenaphthylene	ND U	--	--	--	--
Anthracene	0.019 J	12,000	--	--	--
Benzo[a]anthracene	0.074	0.9	1.8	1.1	--
Benzo[a]pyrene	0.087	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.17	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.1	--	--	--	--
Benzo[k]fluoranthene	0.049	9	--	--	--
Bis(2-ethylhexyl) phthalate	ND U	46	--	--	--
Chrysene	0.097	88	--	--	--
Dibenzo(a,h)anthracene	ND U	0.09	0.42	0.2	--
Fluoranthene	0.13	3,100	--	--	--
Fluorene	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.069	0.9	1.6	0.9	--
Naphthalene	ND U	1.8	--	--	--
Phenanthrene	0.085	--	--	--	--
Pyrene	0.26	2,300	--	--	--
Inorganics (mg/kg)					
Arsenic	2.9	11.3	13	--	--
Barium	25	1,500	--	--	--
Beryllium	0.19 J	22	--	--	--
Boron	9	40	--	--	--
Cadmium	0.14	5.2	--	--	--
Calcium	190,000	--	--	--	--
Chromium	14	21	--	--	--
Cobalt	3.1	20	--	--	--
Copper	10	2,900	--	--	--
Iron	6,600	15,000	15,900	--	--
Lead	100	107	--	--	--
Magnesium	110,000	325,000	--	--	--
Manganese	290	630	636	--	--
Mercury	0.015 J	0.89	--	--	--
Nickel	7.9	100	--	--	--
Potassium	600	--	--	--	--
Selenium	ND U	1.3	--	--	--
Silver	ND U	4.4	--	--	--
Sodium	1,000	--	--	--	--
Vanadium	11	550	--	--	--
Zinc	50	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.37 J	--	--	--	2
Boron	0.63	--	--	--	2
Cobalt	ND U	--	--	--	1
Lead	0.0091 L	--	--	--	0.0075
Manganese	1.2 L	--	--	--	0.15
Nickel	ND U	--	--	--	0.1
Zinc	0.95	--	--	--	5
SPLP Metals (mg/L)					
Lead	0.31 L	--	--	--	0.0075
Manganese	0.6 L	--	--	--	0.15

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ANALYTICAL REPORT

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

TestAmerica Job ID: 500-107703-3
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 12:42:03 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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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.

1

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Job ID: 500-107703-3

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107703-3

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: Due to internal standard (ISTD) area failures, a dilution was required for the following samples: 3011-06-B14 (0-1) (500-107703-9), 3011-06-B07 (0-1) (500-107703-12), 3011-06-B04 (0-1) (500-107703-18), 3011-06-B06 (0-1) (500-107703-19) and 3011-06-B12 (0-1) (500-107703-22). The samples were initially analyzed without dilution. All internal standards were outside the QC limits. The sample were re-analyzed with similar results. No usable data was obtained from the un-diluted runs. The samples were re-analyzed at a dilution using the methanol extraction method. All internal standard areas were within limits in the diluted run. Elevated reporting limits have been provided.

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with batches 324522 and 324843: Vinyl Acetate. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one base/neutral surrogate outside acceptance limits: 3011-06-B14 (0-1) (500-107703-9), 3011-06-B11 (0-1) (500-107703-10), 3011-06-B09 (0-1) (500-107703-11), 3011-06-B07 (0-1) (500-107703-12), 3011-06-B05 (0-1) (500-107703-13), 3011-06-B02 (0-1) (500-107703-14), 3011-06-B01 (0-1) (500-107703-15), 3011-06-B01 (0-1)D (500-107703-16), 3011-06-B03 (0-1) (500-107703-17), 3011-06-B04 (0-1) (500-107703-18), 3011-06-B06 (0-1) (500-107703-19), 3011-06-B08 (0-1) (500-107703-20), 3011-06-B10 (0-1) (500-107703-21), (500-107703-E-1-B MS), (500-107703-E-1-C MSD), (500-107703-E-21-B MS) and (500-107703-E-21-C MS). The laboratory's SOP allows one acid and/or one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-324037 and analytical batch 500-324749 had 1 analyte outside control limits: Bis(2-chloroethyl)ether; therefore, corrective action was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324371 and analytical batch 500-324528 contained Calcium, Iron, and Magnesium above the reporting limit (RL). Associated samples 3011-06-B10 (0-1) (500-107703-21), 3011-06-B12 (0-1) (500-107703-22) and 3011-06-B13 (0-1) (500-107703-23) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 7471B: The matrix spike (MS) recoveries for 500-107703-1 were outside control limits for Hg. The sample appears to have been double spiked. The MSD was within control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Job ID: 500-107703-3 (Continued)

Laboratory: TestAmerica Chicago (Continued)

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B14 (0-1)

Lab Sample ID: 500-107703-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.057	J	0.061	0.024	mg/Kg	50	☼	8260B	Total/NA
Phenanthrene	0.085		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.019	J	0.037	0.0062	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.13		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.26		0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.074		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.097		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.17		0.037	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.049		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.087		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.069		0.037	0.0096	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.10		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.9		0.57	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	25		0.57	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.19	J	0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	9.0		2.9	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14		0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	190000	B	110	37	mg/Kg	10	☼	6010B	Total/NA
Chromium	14	B	0.57	0.099	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.1		0.29	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	10		0.57	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	6600		11	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	100		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	110000		57	23	mg/Kg	10	☼	6010B	Total/NA
Manganese	290	B	0.57	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.9		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	600		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Sodium	1000		57	7.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	11		0.29	0.084	mg/Kg	1	☼	6010B	Total/NA
Zinc	50		1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.37	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.63		0.50	0.050	mg/L	1		6010B	TCLP
Lead	0.0091		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.95	B	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.31		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.60		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.015	J	0.017	0.0090	mg/Kg	1	☼	7471B	Total/NA
pH	8.98		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107703-9	3011-06-B14 (0-1)	Solid	02/17/16 09:45	02/18/16 07:30

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B14 (0-1)

Lab Sample ID: 500-107703-9

Date Collected: 02/17/16 09:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.30		0.30	0.11	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Benzene	<0.015		0.015	0.0089	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Bromodichloromethane	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Bromoform	<0.061		0.061	0.029	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Bromomethane	<0.12		0.12	0.048	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
2-Butanone (MEK)	<0.30		0.30	0.13	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Carbon disulfide	<0.12		0.12	0.049	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Carbon tetrachloride	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Chlorobenzene	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Chloroethane	<0.061		0.061	0.031	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Chloroform	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Chloromethane	<0.061		0.061	0.019	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
cis-1,2-Dichloroethene	<0.061		0.061	0.025	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
cis-1,3-Dichloropropene	<0.061		0.061	0.025	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Dibromochloromethane	<0.061		0.061	0.030	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,1-Dichloroethane	<0.061		0.061	0.025	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,2-Dichloroethane	<0.061		0.061	0.024	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,1-Dichloroethene	<0.061		0.061	0.024	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,2-Dichloropropane	<0.061		0.061	0.026	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,3-Dichloropropene, Total	<0.061		0.061	0.025	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Ethylbenzene	<0.015		0.015	0.011	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
2-Hexanone	<0.30		0.30	0.095	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Methylene Chloride	<0.30		0.30	0.099	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
4-Methyl-2-pentanone (MIBK)	<0.30		0.30	0.13	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Methyl tert-butyl ether	0.057	J	0.061	0.024	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Styrene	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,1,2,2-Tetrachloroethane	<0.061		0.061	0.024	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Tetrachloroethene	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Toluene	<0.015		0.015	0.0089	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
trans-1,2-Dichloroethene	<0.061		0.061	0.021	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
trans-1,3-Dichloropropene	<0.061		0.061	0.022	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,1,1-Trichloroethane	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,1,2-Trichloroethane	<0.061		0.061	0.021	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Trichloroethene	<0.030		0.030	0.010	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Vinyl acetate	<0.12		0.12	0.055	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Vinyl chloride	<0.030		0.030	0.016	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Xylenes, Total	<0.030		0.030	0.013	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		75 - 120	02/17/16 09:45	03/01/16 12:49	50
Dibromofluoromethane	88		75 - 120	02/17/16 09:45	03/01/16 12:49	50
1,2-Dichloroethane-d4 (Surr)	84		75 - 125	02/17/16 09:45	03/01/16 12:49	50
Toluene-d8 (Surr)	95		75 - 120	02/17/16 09:45	03/01/16 12:49	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.056	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B14 (0-1)

Lab Sample ID: 500-107703-9

Date Collected: 02/17/16 09:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2-Methylnaphthalene	<0.037		0.037	0.0068	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Phenanthrene	0.085		0.037	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Anthracene	0.019 J		0.037	0.0062	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Carbazole	<0.19		0.19	0.093	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Fluoranthene	0.13		0.037	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Pyrene	0.26		0.037	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Benzo[a]anthracene	0.074		0.037	0.0050	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B14 (0-1)

Lab Sample ID: 500-107703-9

Date Collected: 02/17/16 09:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.097		0.037	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Benzo[b]fluoranthene	0.17		0.037	0.0080	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Benzo[k]fluoranthene	0.049		0.037	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Benzo[a]pyrene	0.087		0.037	0.0072	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Indeno[1,2,3-cd]pyrene	0.069		0.037	0.0096	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Benzo[g,h,i]perylene	0.10		0.037	0.012	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	81		25 - 110	02/23/16 07:13	02/28/16 19:16	1
Phenol-d5	54		31 - 110	02/23/16 07:13	02/28/16 19:16	1
Nitrobenzene-d5	80		25 - 115	02/23/16 07:13	02/28/16 19:16	1
2-Fluorobiphenyl	74		25 - 119	02/23/16 07:13	02/28/16 19:16	1
2,4,6-Tribromophenol	102		35 - 137	02/23/16 07:13	02/28/16 19:16	1
Terphenyl-d14	191	X	36 - 134	02/23/16 07:13	02/28/16 19:16	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	☼	02/25/16 09:30	02/26/16 16:58	1
Arsenic	2.9		0.57	0.26	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Barium	25		0.57	0.10	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Beryllium	0.19	J	0.23	0.050	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Boron	9.0		2.9	0.40	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Cadmium	0.14		0.11	0.033	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Calcium	190000	B	110	37	mg/Kg	☼	02/25/16 09:30	02/27/16 23:09	10
Chromium	14	B	0.57	0.099	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Cobalt	3.1		0.29	0.065	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Copper	10		0.57	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Iron	6600		11	4.4	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Lead	100		0.29	0.14	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Magnesium	110000		57	23	mg/Kg	☼	02/25/16 09:30	02/27/16 23:09	10
Manganese	290	B	0.57	0.11	mg/Kg	☼	02/25/16 09:30	02/28/16 00:41	1
Nickel	7.9		0.57	0.16	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Potassium	600		29	4.7	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Selenium	<0.57		0.57	0.28	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Silver	<0.29		0.29	0.067	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Sodium	1000		57	7.6	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Vanadium	11		0.29	0.084	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Zinc	50		1.1	0.36	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.37	J	0.50	0.050	mg/L		02/23/16 16:01	02/26/16 23:38	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/26/16 23:38	1
Boron	0.63		0.50	0.050	mg/L		02/23/16 16:01	02/26/16 23:38	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B14 (0-1)

Lab Sample ID: 500-107703-9

Date Collected: 02/17/16 09:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	02/23/16 16:01	02/26/16 23:38	1
Chromium	<0.025		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:38	1
Cobalt	<0.025		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:38	1
Iron	<0.40		0.40	0.20	mg/L	-	02/23/16 16:01	02/26/16 23:38	1
Lead	0.0091		0.0075	0.0075	mg/L	-	02/23/16 16:01	02/26/16 23:38	1
Manganese	1.2		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:38	1
Nickel	<0.025		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:38	1
Selenium	<0.050		0.050	0.020	mg/L	-	02/23/16 16:01	02/26/16 23:38	1
Silver	<0.025		0.025	0.010	mg/L	-	02/23/16 16:01	02/26/16 23:38	1
Zinc	0.95	B	0.50	0.020	mg/L	-	02/23/16 16:01	02/26/16 23:38	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.31		0.0075	0.0075	mg/L	-	02/23/16 16:10	02/27/16 21:32	1
Manganese	0.60		0.025	0.010	mg/L	-	02/23/16 16:10	02/27/16 21:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	02/23/16 16:01	02/25/16 17:39	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	02/23/16 16:01	02/25/16 17:39	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	02/23/16 16:45	02/24/16 12:23	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	J	0.017	0.0090	mg/Kg	☼	02/23/16 15:15	02/24/16 14:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.98		0.200	0.200	SU	-		02/23/16 11:51	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

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

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
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.

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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

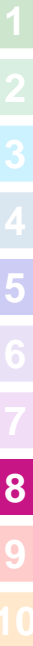
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
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Report To (optional)
 Contact: _____
 Company: _____
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 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

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

Chain of Custody Record

Lab Job #: 500-107703

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
E+E		1009341-0008-01									
Project Name		Lab Project #		# of Containers		Matrix		Matrix		Comments	
IL 38		50011804.0008.01									
Project Location/State		Lab PM		Date		Time		Matrix		Comments	
Kane County IL		D. Wright									
Sampler		Sample ID		Date		Time		Matrix		Comments	
S. Cooper											
9	MS/MSD	3011-06-B14 (01)	2/17/16	0945	2	S	X	X	X	X	
10	MS/MSD	3011-06-B11 (01)	2/17/16	1000	2	S	X	X	X	X	
11	MS/MSD	3011-06-B09 (01)	2/17/16	1005	2	S	X	X	X	X	
12	MS/MSD	3011-06-B07 (01)	2/17/16	1015	2	S	X	X	X	X	
13	MS/MSD	3011-06-B05 (01)	2/17/16	1025	2	S	X	X	X	X	
14	MS/MSD	3011-06-B02 (01)	2/17/16	1040	2	S	X	X	X	X	
15	MS/MSD	3011-06-B01 (01)	2/17/16	1305	2	S	X	X	X	X	
16	MS/MSD	3011-06-B01 (01) D	2/17/16	1305	2	S	X	X	X	X	
17	MS/MSD	3011-06-B03 (01)	2/17/16	1310	2	S	X	X	X	X	
18	MS/MSD	3011-06-B04 (01)	2/17/16	1315	2	S	X	X	X	X	

- Preservative Key
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

Turnaround Time Required (Business Days)

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

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>S. Cooper</u> Company: <u>E+E</u> Date: <u>2/17/16</u> Time: <u>1515</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/17/16</u> Time: <u>1515</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/17/16</u> Time: <u>1645</u>	Received By: <u>[Signature]</u> Company: <u>TA-CHI</u> Date: <u>2/18/16</u> Time: <u>0730</u>
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____

Lab Courier: [Signature]
 Shipped: _____
 Hand Delivered: _____

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

Client Comments: _____

Lab Comments: _____

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

Chain of Custody Record

Lab Job #: 500-107703

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments			
EE		1009341-020801								Preservative Key 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		Lab Project #		# of Containers		Matrix		Matrix		Comments			
FL 38		50011864											
Project Location/State		Lab Project #		Date		Time		Matrix		Comments			
Kane County, IL		50011864											
Sampler		Lab PM		Date		Time		Matrix		Comments			
S-Cooper		P. Wright											
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	VOC	SVOC	Total TAC	TEMP/STP	TAC Method	pH/°C Solids	Comments
19		3011-06-B06 (01)	2/17/16	1745	2	S	X	X	X	X	X	X	
20		3011-06-B08 (01)	2/17/16	1750	2	S	X	X	X	X	X	X	
21		3011-06-B10 (01)	2/17/16	1755	2	S	X	X	X	X	X	X	
22		3011-06-B12 (01)	2/17/16	1800	2	S	X	X	X	X	X	X	
23		3011-06-B13 (01)	2/17/16	1805	2	S	X	X	X	X	X	X	

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>[Signature]</u> Company: <u>LC</u> Date: <u>2-17-16</u> Time: <u>1515</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/18/16</u> Time: <u>1515</u>	Lab Courier: <u>TA</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/17/16</u> Time: <u>1645</u>	Received By: <u>[Signature]</u> Company: <u>TA-CERT</u> Date: <u>2/18/16</u> Time: <u>0930</u>	Shipped: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	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:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107703-3

Login Number: 107703

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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ANALYTICAL REPORT

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

TestAmerica Job ID: 500-107704-2
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 1:00:16 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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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.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10



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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-2

Job ID: 500-107704-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107704-2

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-324220: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 500-324220 recovered outside control limits for the following analyte: Acetone.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-08-B01 (0-1) (500-107704-2), (MB 500-324045/1-A), (500-107704-E-1-A), (500-107704-E-1-B MS) and (500-107704-E-1-C MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324448 and analytical batch 500-324695 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-2

Client Sample ID: 3011-08-B01 (0-1)

Lab Sample ID: 500-107704-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0079	J	0.037	0.0058	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.0086	J	0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.021	J	0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.010	J	0.037	0.0068	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.012	J	0.037	0.0053	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.15		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.035	J	0.037	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.29		0.037	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.46		0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.18		0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.20		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.32		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.14		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.20		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.075		0.037	0.0098	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.084		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.0		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	59		0.54	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.38		0.22	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	6.5		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	10000	B	110	35	mg/Kg	10	☼	6010B	Total/NA
Chromium	11	B	0.54	0.094	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.9		0.27	0.062	mg/Kg	1	☼	6010B	Total/NA
Copper	12	B	0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	11000	B	11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	49		0.27	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	38000	B	5.4	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	420	B	0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	850		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.35	J	0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	2200	B	54	7.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.27	0.079	mg/Kg	1	☼	6010B	Total/NA
Zinc	51		1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.48	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.086	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.99		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.62	B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.94	F1	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.012	J	0.019	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.77		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107704-2	3011-08-B01 (0-1)	Solid	02/17/16 09:55	02/18/16 07:30

1

2

3

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-2

Client Sample ID: 3011-08-B01 (0-1)

Lab Sample ID: 500-107704-2

Date Collected: 02/17/16 09:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020	*	0.020	0.0038	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Benzene	<0.0049		0.0049	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Bromodichloromethane	<0.0049		0.0049	0.00083	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Bromoform	<0.0049		0.0049	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Bromomethane	<0.0049	*	0.0049	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
2-Butanone (MEK)	<0.0049		0.0049	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Carbon disulfide	<0.0049		0.0049	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Carbon tetrachloride	<0.0049		0.0049	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Chlorobenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Chloroethane	<0.0049		0.0049	0.0021	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Chloroform	<0.0049		0.0049	0.00095	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Chloromethane	<0.0049		0.0049	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
cis-1,2-Dichloroethene	<0.0049		0.0049	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
cis-1,3-Dichloropropene	<0.0049		0.0049	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Dibromochloromethane	<0.0049		0.0049	0.00056	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
1,1-Dichloroethane	<0.0049		0.0049	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
1,2-Dichloroethane	<0.0049		0.0049	0.00072	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
1,1-Dichloroethene	<0.0049		0.0049	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
1,2-Dichloropropane	<0.0049		0.0049	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
1,3-Dichloropropane, Total	<0.0049		0.0049	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Ethylbenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Methylene Chloride	<0.0049		0.0049	0.0037	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Methyl tert-butyl ether	<0.0049		0.0049	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Styrene	<0.0049		0.0049	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
1,1,2,2-Tetrachloroethane	<0.0049		0.0049	0.00078	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Tetrachloroethene	<0.0049		0.0049	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Toluene	<0.0049		0.0049	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
trans-1,2-Dichloroethene	<0.0049		0.0049	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
trans-1,3-Dichloropropene	<0.0049		0.0049	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
1,1,1-Trichloroethane	<0.0049		0.0049	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
1,1,2-Trichloroethane	<0.0049		0.0049	0.00095	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Trichloroethene	<0.0049		0.0049	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Vinyl acetate	<0.0049		0.0049	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Vinyl chloride	<0.0049		0.0049	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1
Xylenes, Total	<0.0098		0.0098	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 16:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 122	02/18/16 08:10	02/24/16 16:36	1
Dibromofluoromethane	108		75 - 120	02/18/16 08:10	02/24/16 16:36	1
1,2-Dichloroethane-d4 (Surr)	116		70 - 134	02/18/16 08:10	02/24/16 16:36	1
Toluene-d8 (Surr)	111		75 - 122	02/18/16 08:10	02/24/16 16:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-2

Client Sample ID: 3011-08-B01 (0-1)

Lab Sample ID: 500-107704-2

Date Collected: 02/17/16 09:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Naphthalene	0.0079	J	0.037	0.0058	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2-Methylnaphthalene	0.0086	J	0.037	0.0069	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Acenaphthylene	0.021	J	0.037	0.0050	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Acenaphthene	0.010	J	0.037	0.0068	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Fluorene	0.012	J	0.037	0.0053	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Phenanthrene	0.15		0.037	0.0052	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Anthracene	0.035	J	0.037	0.0063	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Fluoranthene	0.29		0.037	0.0070	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Pyrene	0.46		0.037	0.0075	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Benzo[a]anthracene	0.18		0.037	0.0051	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-2

Client Sample ID: 3011-08-B01 (0-1)

Lab Sample ID: 500-107704-2

Date Collected: 02/17/16 09:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.20		0.037	0.010	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Benzo[b]fluoranthene	0.32		0.037	0.0081	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Benzo[k]fluoranthene	0.14		0.037	0.011	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Benzo[a]pyrene	0.20		0.037	0.0073	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Indeno[1,2,3-cd]pyrene	0.075		0.037	0.0098	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
Benzo[g,h,i]perylene	0.084		0.037	0.012	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:20	02/29/16 14:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	96		25 - 110	02/23/16 07:20	02/29/16 14:59	1
Phenol-d5	91		31 - 110	02/23/16 07:20	02/29/16 14:59	1
Nitrobenzene-d5	89		25 - 115	02/23/16 07:20	02/29/16 14:59	1
2-Fluorobiphenyl	92		25 - 119	02/23/16 07:20	02/29/16 14:59	1
2,4,6-Tribromophenol	70		35 - 137	02/23/16 07:20	02/29/16 14:59	1
Terphenyl-d14	161	X	36 - 134	02/23/16 07:20	02/29/16 14:59	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	☼	02/25/16 15:15	02/26/16 20:55	1
Arsenic	5.0		0.54	0.25	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Barium	59		0.54	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Beryllium	0.38		0.22	0.047	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Boron	6.5		2.7	0.38	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Cadmium	0.12		0.11	0.032	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Calcium	100000	B	110	35	mg/Kg	☼	02/25/16 15:15	02/28/16 00:29	10
Chromium	11	B	0.54	0.094	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Cobalt	5.9		0.27	0.062	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Copper	12	B	0.54	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Iron	11000	B	11	4.2	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Lead	49		0.27	0.14	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Magnesium	38000	B	5.4	2.2	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Manganese	420	B	0.54	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Nickel	13		0.54	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Potassium	850		27	4.4	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Selenium	0.35	J	0.54	0.27	mg/Kg	☼	02/25/16 15:15	02/28/16 00:14	1
Silver	<0.27		0.27	0.064	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Sodium	2200	B	54	7.2	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Vanadium	18		0.27	0.079	mg/Kg	☼	02/25/16 15:15	02/26/16 20:55	1
Zinc	51		1.1	0.34	mg/Kg	☼	02/25/16 15:15	02/28/16 00:14	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.48	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 19:41	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 19:41	1
Boron	0.086	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 19:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-2

Client Sample ID: 3011-08-B01 (0-1)

Lab Sample ID: 500-107704-2

Date Collected: 02/17/16 09:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 19:41	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:41	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:41	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 19:41	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 19:41	1
Manganese	0.99		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:41	1
Nickel	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:41	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 19:41	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:41	1
Zinc	0.62	B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 19:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.94	F1	0.025	0.010	mg/L		02/25/16 08:29	02/28/16 03:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 19:58	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 19:58	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:13	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012	J	0.019	0.010	mg/Kg	☼	02/23/16 15:15	02/24/16 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.77		0.200	0.200	SU			02/23/16 13:19	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

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.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-2

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

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

Chain of Custody Record

Lab Job #: 500-107704

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Preservative Key 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		Lab Project #																
Project Location/State		Lab PM																
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix												
			Date	Time					Comments									
2		3011-08-B01 (01)	2/17/16	09:55	2	S	VOC	SVOC	Total TAL metals	TCLP/SPLP TAL metals	PTH % solids	X	X	X	X	X		

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>[Signature]</u>	Company: <u>ISE</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>
Relinquished By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1645</u>	Received By: <u>[Signature]</u>	Company: <u>TA-CPT</u>	Date: <u>2/18/16</u>	Time: <u>0730</u>

Lab Courier: TA

Shipped: _____

Hand Delivered: _____

Matrix Key

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

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107704-2

Login Number: 107704

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 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: FAP 347 (IL Route 38) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
49W 580 block of IL 38 ISGS #3011-9 (Gardner Cemetery)

City: Maple Park State: IL Zip Code: 60151

County: Kane Township: Kaneville

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

Latitude: 41.89424535 Longitude: -88.57482865
(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: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: 60196-1096 Phone: 847-705-4159

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

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 an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 347 (IL Route 38)

Latitude: 41.89424535 Longitude: -88.57482865

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 appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Location 3011-09-B01 was sampled within the construction zone adjacent to ISGS #3011-9 (Gardner Cemetery). Refer to PSI Report for ISGS #3011-9 (Gardner Cemetery) including Table 4-4, and Figures 4-2A&B.

- 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]:

See attached data summary table and associated laboratory data package J107704-3.

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

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

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

Company Name: Ecology and Environment, Inc.

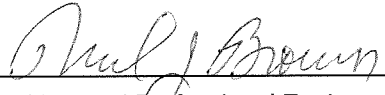
Street Address: 33 West Monroe Street

City: Chicago State: IL Zip Code: 60603

Phone: 312-578-9243

Neil J. Brown

Printed Name:



Licensed Professional Engineer or
Licensed Professional Geologist Signature:

3/17/16

Date:



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




Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A

Key to Data Tables

- MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

Criteria Qualifiers and Shading

- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-9 (Gardner Cemetery)	Comparison Criteria			
BORING	3011-09-B01	MACs			TACO
SAMPLE	3011-09-B01 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.14				
VOCs (None Detected)					
SVOCs (mg/kg)					
Anthracene	0.0062 J	12,000	--	--	--
Benzo[a]anthracene	0.034 J	0.9	1.8	1.1	--
Benzo[a]pyrene	0.046	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.076	0.9	2.1	1.5	--
Benzo[k]fluoranthene	0.033 J	9	--	--	--
Chrysene	0.046	88	--	--	--
Fluoranthene	0.056	3,100	--	--	--
Phenanthrene	0.027 J	--	--	--	--
Pyrene	0.088	2,300	--	--	--
Inorganics (mg/kg)					
Arsenic	2.6	11.3	13	--	--
Barium	47	1,500	--	--	--
Beryllium	0.24	22	--	--	--
Boron	10	40	--	--	--
Cadmium	0.053 J	5.2	--	--	--
Calcium	190,000	--	--	--	--
Chromium	7.3	21	--	--	--
Cobalt	3.1	20	--	--	--
Copper	7.5	2,900	--	--	--
Iron	6,500	15,000	15,900	--	--
Lead	15	107	--	--	--
Magnesium	100,000	325,000	--	--	--
Manganese	360	630	636	--	--
Nickel	7.4	100	--	--	--
Potassium	580	--	--	--	--
Selenium	0.55	1.3	--	--	--
Sodium	1,500	--	--	--	--
Vanadium	11	550	--	--	--
Zinc	31	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.47 J	--	--	--	2
Boron	0.14 J	--	--	--	2
Manganese	0.57 L	--	--	--	0.15
SPLP Metals (mg/L)					
Manganese	0.15	--	--	--	0.15

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: 500-107704-3
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 1:00:37 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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results through
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Have a Question?



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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.

1

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-3

Job ID: 500-107704-3

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107704-3

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: The laboratory control sample duplicate (LCSD) for batch 500-324350 recovered outside control limits for the following analyte: 1,2-Dichloropropane. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-09-B01 (0-1) (500-107704-3), (MB 500-324045/1-A), (500-107704-E-1-A), (500-107704-E-1-B MS) and (500-107704-E-1-C MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324448 and analytical batch 500-324695 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-3

Client Sample ID: 3011-09-B01 (0-1)

Lab Sample ID: 500-107704-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.027	J	0.035	0.0050	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0062	J	0.035	0.0060	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.056		0.035	0.0066	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.088		0.035	0.0071	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.034	J	0.035	0.0048	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.046		0.035	0.0097	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.076		0.035	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.033	J	0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.046		0.035	0.0069	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.6		0.53	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	47		0.53	0.098	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.24		0.21	0.046	mg/Kg	1	☼	6010B	Total/NA
Boron	10		2.7	0.37	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.053	J	0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	190000	B	110	34	mg/Kg	10	☼	6010B	Total/NA
Chromium	7.3	B	0.53	0.092	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.1		0.27	0.060	mg/Kg	1	☼	6010B	Total/NA
Copper	7.5	B	0.53	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	6500	B	11	4.1	mg/Kg	1	☼	6010B	Total/NA
Lead	15		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	100000	B	53	22	mg/Kg	10	☼	6010B	Total/NA
Manganese	360	B	0.53	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.4		0.53	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	580		27	4.3	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.55		0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Sodium	1500	B	53	7.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	11		0.27	0.078	mg/Kg	1	☼	6010B	Total/NA
Zinc	31		11	3.4	mg/Kg	10	☼	6010B	Total/NA
Barium	0.47	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.14	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.57		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.13	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.15		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.14		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107704-3	3011-09-B01 (0-1)	Solid	02/17/16 14:10	02/18/16 07:30

1

2

3

4

5

6

7

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10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-3

Client Sample ID: 3011-09-B01 (0-1)

Lab Sample ID: 500-107704-3

Date Collected: 02/17/16 14:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.015		0.015	0.0029	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Benzene	<0.0038		0.0038	0.00083	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Bromodichloromethane	<0.0038		0.0038	0.00063	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Bromoform	<0.0038		0.0038	0.00077	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Bromomethane	<0.0038		0.0038	0.0014	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
2-Butanone (MEK)	<0.0038		0.0038	0.0013	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Carbon disulfide	<0.0038		0.0038	0.0014	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Carbon tetrachloride	<0.0038		0.0038	0.00080	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Chlorobenzene	<0.0038		0.0038	0.00089	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Chloroethane	<0.0038		0.0038	0.0016	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Chloroform	<0.0038		0.0038	0.00073	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Chloromethane	<0.0038		0.0038	0.00090	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
cis-1,2-Dichloroethene	<0.0038		0.0038	0.00077	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
cis-1,3-Dichloropropene	<0.0038		0.0038	0.00086	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Dibromochloromethane	<0.0038		0.0038	0.00043	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
1,1-Dichloroethane	<0.0038		0.0038	0.00077	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
1,2-Dichloroethane	<0.0038		0.0038	0.00056	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
1,1-Dichloroethene	<0.0038		0.0038	0.0014	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
1,2-Dichloropropane	<0.0038	*	0.0038	0.00098	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
1,3-Dichloropropene, Total	<0.0038		0.0038	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Ethylbenzene	<0.0038		0.0038	0.00093	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
2-Hexanone	<0.0038		0.0038	0.0012	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Methylene Chloride	<0.0038		0.0038	0.0028	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
4-Methyl-2-pentanone (MIBK)	<0.0038		0.0038	0.00077	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Methyl tert-butyl ether	<0.0038		0.0038	0.00089	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Styrene	<0.0038		0.0038	0.00088	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
1,1,2,2-Tetrachloroethane	<0.0038		0.0038	0.00060	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Tetrachloroethene	<0.0038		0.0038	0.00078	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Toluene	<0.0038		0.0038	0.0013	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
trans-1,2-Dichloroethene	<0.0038		0.0038	0.00094	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
trans-1,3-Dichloropropene	<0.0038		0.0038	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
1,1,1-Trichloroethane	<0.0038		0.0038	0.00087	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
1,1,2-Trichloroethane	<0.0038		0.0038	0.00073	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Trichloroethene	<0.0038		0.0038	0.0010	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Vinyl acetate	<0.0038		0.0038	0.0010	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Vinyl chloride	<0.0038		0.0038	0.00089	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1
Xylenes, Total	<0.0075		0.0075	0.0014	mg/Kg	☼	02/18/16 08:10	02/25/16 14:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 122	02/18/16 08:10	02/25/16 14:44	1
Dibromofluoromethane	94		75 - 120	02/18/16 08:10	02/25/16 14:44	1
1,2-Dichloroethane-d4 (Surr)	82		70 - 134	02/18/16 08:10	02/25/16 14:44	1
Toluene-d8 (Surr)	105		75 - 122	02/18/16 08:10	02/25/16 14:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.079	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-3

Client Sample ID: 3011-09-B01 (0-1)

Lab Sample ID: 500-107704-3

Date Collected: 02/17/16 14:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
N-Nitrosodi-n-propylamine	<0.072		0.072	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Nitrobenzene	<0.035		0.035	0.0089	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
2,4-Dimethylphenol	<0.35		0.35	0.14	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Naphthalene	<0.035		0.035	0.0055	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
2,4-Dichlorophenol	<0.35		0.35	0.085	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
4-Chloroaniline	<0.72		0.72	0.17	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
2,4,5-Trichlorophenol	<0.35		0.35	0.081	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Hexachlorocyclopentadiene	<0.72		0.72	0.21	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
2-Methylnaphthalene	<0.035		0.035	0.0066	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
2-Nitrophenol	<0.35		0.35	0.084	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
2,4-Dinitrophenol	<0.72		0.72	0.63	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Acenaphthylene	<0.035		0.035	0.0047	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Acenaphthene	<0.035		0.035	0.0064	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
4-Nitrophenol	<0.72		0.72	0.34	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Fluorene	<0.035		0.035	0.0050	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Hexachlorobenzene	<0.072		0.072	0.0083	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Pentachlorophenol	<0.72		0.72	0.57	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
4,6-Dinitro-2-methylphenol	<0.72		0.72	0.29	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Phenanthrene	0.027	J	0.035	0.0050	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Anthracene	0.0062	J	0.035	0.0060	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Carbazole	<0.18		0.18	0.089	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Fluoranthene	0.056		0.035	0.0066	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Pyrene	0.088		0.035	0.0071	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Butyl benzyl phthalate	<0.18		0.18	0.068	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Benzo[a]anthracene	0.034	J	0.035	0.0048	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-3

Client Sample ID: 3011-09-B01 (0-1)

Lab Sample ID: 500-107704-3

Date Collected: 02/17/16 14:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.046		0.035	0.0097	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Benzo[b]fluoranthene	0.076		0.035	0.0077	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Benzo[k]fluoranthene	0.033	J	0.035	0.011	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Benzo[a]pyrene	0.046		0.035	0.0069	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Indeno[1,2,3-cd]pyrene	<0.035		0.035	0.0092	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0069	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
Benzo[g,h,i]perylene	<0.035		0.035	0.011	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 15:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	96		25 - 110	02/23/16 07:20	02/29/16 15:24	1
Phenol-d5	89		31 - 110	02/23/16 07:20	02/29/16 15:24	1
Nitrobenzene-d5	88		25 - 115	02/23/16 07:20	02/29/16 15:24	1
2-Fluorobiphenyl	92		25 - 119	02/23/16 07:20	02/29/16 15:24	1
2,4,6-Tribromophenol	56		35 - 137	02/23/16 07:20	02/29/16 15:24	1
Terphenyl-d14	167	X	36 - 134	02/23/16 07:20	02/29/16 15:24	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	02/25/16 15:15	02/26/16 21:00	1
Arsenic	2.6		0.53	0.25	mg/Kg	☼	02/25/16 15:15	02/26/16 21:00	1
Barium	47		0.53	0.098	mg/Kg	☼	02/25/16 15:15	02/26/16 21:00	1
Beryllium	0.24		0.21	0.046	mg/Kg	☼	02/25/16 15:15	02/26/16 21:00	1
Boron	10		2.7	0.37	mg/Kg	☼	02/25/16 15:15	02/26/16 21:00	1
Cadmium	0.053	J	0.11	0.031	mg/Kg	☼	02/25/16 15:15	02/26/16 21:00	1
Calcium	190000	B	110	34	mg/Kg	☼	02/25/16 15:15	02/28/16 00:42	10
Chromium	7.3	B	0.53	0.092	mg/Kg	☼	02/25/16 15:15	02/26/16 21:00	1
Cobalt	3.1		0.27	0.060	mg/Kg	☼	02/25/16 15:15	02/26/16 21:00	1
Copper	7.5	B	0.53	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 21:00	1
Iron	6500	B	11	4.1	mg/Kg	☼	02/25/16 15:15	02/26/16 21:00	1
Lead	15		0.27	0.13	mg/Kg	☼	02/25/16 15:15	02/26/16 21:00	1
Magnesium	100000	B	53	22	mg/Kg	☼	02/25/16 15:15	02/28/16 00:42	10
Manganese	360	B	0.53	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 21:00	1
Nickel	7.4		0.53	0.14	mg/Kg	☼	02/25/16 15:15	02/26/16 21:00	1
Potassium	580		27	4.3	mg/Kg	☼	02/25/16 15:15	02/26/16 21:00	1
Selenium	0.55		0.53	0.26	mg/Kg	☼	02/25/16 15:15	02/29/16 14:00	1
Silver	<0.27		0.27	0.062	mg/Kg	☼	02/25/16 15:15	02/26/16 21:00	1
Sodium	1500	B	53	7.0	mg/Kg	☼	02/25/16 15:15	02/26/16 21:00	1
Thallium	<0.53		0.53	0.26	mg/Kg	☼	02/25/16 15:15	02/26/16 21:00	1
Vanadium	11		0.27	0.078	mg/Kg	☼	02/25/16 15:15	02/26/16 21:00	1
Zinc	31		11	3.4	mg/Kg	☼	02/25/16 15:15	02/28/16 00:42	10

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.47	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 19:48	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 19:48	1
Boron	0.14	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 19:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-3

Client Sample ID: 3011-09-B01 (0-1)

Lab Sample ID: 500-107704-3

Date Collected: 02/17/16 14:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 19:48	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:48	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:48	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 19:48	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 19:48	1
Manganese	0.57		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:48	1
Nickel	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:48	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 19:48	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:48	1
Zinc	0.13	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 19:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.15		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 03:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 20:15	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 20:15	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:19	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.016		0.016	0.0085	mg/Kg	☼	02/23/16 15:15	02/24/16 11:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.14		0.200	0.200	SU			02/23/16 13:24	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-3

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

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.
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-3

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 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 #: 500-107704
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments		
Project Name		Lab Project #		Sampling		# of Containers		Matrix		Preservative Key		
Project Location/State		Lab RM		Date	Time					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		
Lab ID	MS/MSD	Sample ID										
3		3011-09-B01 (0-1)	2/17/16	1410	2 S			VOC	SUUC	TOTL TAC	TAC mod	PCY % Solid
2-17-16												

Turnaround Time Required (Business Days)

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

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	Company	Date	Time	Received By	Company	Date	Time
<i>[Signature]</i>	KE	2/17/16	1515	<i>[Signature]</i>	TA	2/17/16	1515
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
<i>[Signature]</i>	TA	2/17/16	1645	<i>[Signature]</i>	TA-OTT	2/18/16	0730
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

Matrix Key

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

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107704-3

Login Number: 107704

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





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

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

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

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

I. Source Location Information

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

Project Name: FAP 347 (IL Route 38) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
49W 420 IL 38 ISGS #3011-10 (Residence)

City: Maple Park State: IL Zip Code: 88.5738122

County: Kane Township: Virgil

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

Latitude: 41.8943728 Longitude: -88.5738122
(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: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: 60196-1096 Phone: 847-705-4159

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

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 an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 347 (IL Route 38)

Latitude: 41.8943728 Longitude: -88.5738122

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 appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Location 3011-10-B01 was sampled within the construction zone adjacent to ISGS #3011-10 (Residence). Refer to PSI Report for ISGS #3011-10 (Residence) including Table 4-4, and Figures 4-2A&B.

- 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]:

See attached data summary table and associated laboratory data package J107704-4.

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

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

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

Company Name: Ecology and Environment, Inc.

Street Address: 33 West Monroe Street

City: Chicago State: IL Zip Code: 60603

Phone: 312-578-9243

Neil J. Brown

Printed Name:

Neil J. Brown

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

3/17/16

Date:



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




Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A

Key to Data Tables

- MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

Criteria Qualifiers and Shading

- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A
CONTAMINANTS OF CONCERN

SITE	ISGS #3011-10 (Residence)	Comparison Criteria			
BORING	3011-10-B01	MACs			TACO
SAMPLE	3011-10-B01 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.36				
VOCs (None Detected)					
SVOCs (mg/kg)					
Acenaphthylene	0.0056 J	--	--	--	--
Anthracene	0.0078 J	12,000	--	--	--
Benzo[a]anthracene	0.046	0.9	1.8	1.1	--
Benzo[a]pyrene	0.057	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.1	0.9	2.1	1.5	--
Benzo[k]fluoranthene	0.04	9	--	--	--
Chrysene	0.058	88	--	--	--
Fluoranthene	0.072	3,100	--	--	--
Phenanthrene	0.03 J	--	--	--	--
Pyrene	0.1	2,300	--	--	--
Inorganics (mg/kg)					
Arsenic	6	11.3	13	--	--
Barium	39	1,500	--	--	--
Beryllium	0.3	22	--	--	--
Boron	6.9	40	--	--	--
Cadmium	0.057 J	5.2	--	--	--
Calcium	140,000	--	--	--	--
Chromium	8.7	21	--	--	--
Cobalt	5.1	20	--	--	--
Copper	14	2,900	--	--	--
Iron	11,000	15,000	15,900	--	--
Lead	22	107	--	--	--
Magnesium	54,000	325,000	--	--	--
Manganese	290	630	636	--	--
Mercury	0.018	0.89	--	--	--
Nickel	12	100	--	--	--
Potassium	650	--	--	--	--
Selenium	0.53 J	1.3	--	--	--
Sodium	1,400	--	--	--	--
Vanadium	14	550	--	--	--
Zinc	58	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.52	--	--	--	2
Boron	0.09 J	--	--	--	2
Manganese	3.4 L	--	--	--	0.15
Nickel	0.012 J	--	--	--	0.1
SPLP Metals (mg/L)					
Manganese	0.32 L	--	--	--	0.15

TestAmerica

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ANALYTICAL REPORT

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

TestAmerica Job ID: 500-107704-4
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 1:01:23 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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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.

1

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-4

Job ID: 500-107704-4

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107704-4

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-324220: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 500-324220 recovered outside control limits for the following analyte: Acetone.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-10-B01 (0-1) (500-107704-4), (MB 500-324045/1-A), (500-107704-E-1-A), (500-107704-E-1-B MS) and (500-107704-E-1-C MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324448 and analytical batch 500-324695 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-4

Client Sample ID: 3011-10-B01 (0-1)

Lab Sample ID: 500-107704-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acenaphthylene	0.0056	J	0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA	
Phenanthrene	0.030	J	0.037	0.0053	mg/Kg	1	☼	8270D	Total/NA	
Anthracene	0.0078	J	0.037	0.0063	mg/Kg	1	☼	8270D	Total/NA	
Fluoranthene	0.072		0.037	0.0070	mg/Kg	1	☼	8270D	Total/NA	
Pyrene	0.10		0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA	
Benzo[a]anthracene	0.046		0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA	
Chrysene	0.058		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA	
Benzo[b]fluoranthene	0.10		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA	
Benzo[k]fluoranthene	0.040		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA	
Benzo[a]pyrene	0.057		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA	
Arsenic	6.0		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA	
Barium	39		0.54	0.099	mg/Kg	1	☼	6010B	Total/NA	
Beryllium	0.30		0.22	0.047	mg/Kg	1	☼	6010B	Total/NA	
Boron	6.9		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA	
Cadmium	0.057	J	0.11	0.031	mg/Kg	1	☼	6010B	Total/NA	
Calcium	140000	B	110	35	mg/Kg	10	☼	6010B	Total/NA	
Chromium	8.7	B	0.54	0.093	mg/Kg	1	☼	6010B	Total/NA	
Cobalt	5.1		0.27	0.061	mg/Kg	1	☼	6010B	Total/NA	
Copper	14	B	0.54	0.12	mg/Kg	1	☼	6010B	Total/NA	
Iron	11000	B	11	4.2	mg/Kg	1	☼	6010B	Total/NA	
Lead	22		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA	
Magnesium	54000	B	5.4	2.2	mg/Kg	1	☼	6010B	Total/NA	
Manganese	290	B	0.54	0.11	mg/Kg	1	☼	6010B	Total/NA	
Nickel	12		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA	
Potassium	650		27	4.4	mg/Kg	1	☼	6010B	Total/NA	
Selenium	0.53	J	0.54	0.27	mg/Kg	1	☼	6010B	Total/NA	
Sodium	1400	B	54	7.1	mg/Kg	1	☼	6010B	Total/NA	
Vanadium	14		0.27	0.079	mg/Kg	1	☼	6010B	Total/NA	
Zinc	58		11	3.4	mg/Kg	10	☼	6010B	Total/NA	
Barium	0.52		0.50	0.050	mg/L	1		6010B	TCLP	
Boron	0.090	J	0.50	0.050	mg/L	1		6010B	TCLP	
Manganese	3.4		0.025	0.010	mg/L	1		6010B	TCLP	
Nickel	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP	
Zinc	0.039	J B	0.50	0.020	mg/L	1		6010B	TCLP	
Manganese	0.32		0.025	0.010	mg/L	1		6010B	SPLP East	
Mercury	0.018		0.018	0.0097	mg/Kg	1	☼	7471B	Total/NA	
pH	8.36		0.200	0.200	SU	1		9045D	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107704-4	3011-10-B01 (0-1)	Solid	02/17/16 09:40	02/18/16 07:30

1

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-4

Client Sample ID: 3011-10-B01 (0-1)

Lab Sample ID: 500-107704-4

Date Collected: 02/17/16 09:40

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018	*	0.018	0.0035	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Benzene	<0.0045		0.0045	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Bromodichloromethane	<0.0045		0.0045	0.00076	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Bromoform	<0.0045		0.0045	0.00092	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Bromomethane	<0.0045	*	0.0045	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Carbon disulfide	<0.0045		0.0045	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Carbon tetrachloride	<0.0045		0.0045	0.00097	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Chloroethane	<0.0045		0.0045	0.0019	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Chloroform	<0.0045		0.0045	0.00088	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00092	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Dibromochloromethane	<0.0045		0.0045	0.00052	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
1,1-Dichloroethane	<0.0045		0.0045	0.00093	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
1,2-Dichloroethane	<0.0045		0.0045	0.00067	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
1,1-Dichloroethene	<0.0045		0.0045	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Methylene Chloride	<0.0045		0.0045	0.0034	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00093	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Styrene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
1,1,2,2-Tetrachloroethane	<0.0045		0.0045	0.00072	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Tetrachloroethene	<0.0045		0.0045	0.00094	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00087	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Vinyl acetate	<0.0045		0.0045	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Xylenes, Total	<0.0090		0.0090	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 122	02/18/16 08:10	02/24/16 17:26	1
Dibromofluoromethane	105		75 - 120	02/18/16 08:10	02/24/16 17:26	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 134	02/18/16 08:10	02/24/16 17:26	1
Toluene-d8 (Surr)	106		75 - 122	02/18/16 08:10	02/24/16 17:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-4

Client Sample ID: 3011-10-B01 (0-1)

Lab Sample ID: 500-107704-4

Date Collected: 02/17/16 09:40

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2,4-Dichlorophenol	<0.37		0.37	0.090	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2-Methylnaphthalene	<0.037		0.037	0.0069	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Acenaphthylene	0.0056	J	0.037	0.0050	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Phenanthrene	0.030	J	0.037	0.0053	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Anthracene	0.0078	J	0.037	0.0063	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Fluoranthene	0.072		0.037	0.0070	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Pyrene	0.10		0.037	0.0075	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Benzo[a]anthracene	0.046		0.037	0.0051	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-4

Client Sample ID: 3011-10-B01 (0-1)

Lab Sample ID: 500-107704-4

Date Collected: 02/17/16 09:40

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.058		0.037	0.010	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Benzo[b]fluoranthene	0.10		0.037	0.0081	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Benzo[k]fluoranthene	0.040		0.037	0.011	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Benzo[a]pyrene	0.057		0.037	0.0073	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0098	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	86		25 - 110				02/23/16 07:20	02/29/16 15:48	1
Phenol-d5	66		31 - 110				02/23/16 07:20	02/29/16 15:48	1
Nitrobenzene-d5	79		25 - 115				02/23/16 07:20	02/29/16 15:48	1
2-Fluorobiphenyl	81		25 - 119				02/23/16 07:20	02/29/16 15:48	1
2,4,6-Tribromophenol	59		35 - 137				02/23/16 07:20	02/29/16 15:48	1
Terphenyl-d14	145	X	36 - 134				02/23/16 07:20	02/29/16 15:48	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Arsenic	6.0		0.54	0.25	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Barium	39		0.54	0.099	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Beryllium	0.30		0.22	0.047	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Boron	6.9		2.7	0.38	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Cadmium	0.057	J	0.11	0.031	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Calcium	140000	B	110	35	mg/Kg	☼	02/25/16 15:15	02/28/16 00:46	10
Chromium	8.7	B	0.54	0.093	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Cobalt	5.1		0.27	0.061	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Copper	14	B	0.54	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Iron	11000	B	11	4.2	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Lead	22		0.27	0.13	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Magnesium	54000	B	5.4	2.2	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Manganese	290	B	0.54	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Nickel	12		0.54	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Potassium	650		27	4.4	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Selenium	0.53	J	0.54	0.27	mg/Kg	☼	02/25/16 15:15	02/29/16 14:05	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Sodium	1400	B	54	7.1	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Vanadium	14		0.27	0.079	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Zinc	58		11	3.4	mg/Kg	☼	02/25/16 15:15	02/28/16 00:46	10

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.52		0.50	0.050	mg/L		02/25/16 08:27	02/26/16 19:55	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 19:55	1
Boron	0.090	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 19:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-4

Client Sample ID: 3011-10-B01 (0-1)

Lab Sample ID: 500-107704-4

Date Collected: 02/17/16 09:40

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 19:55	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:55	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:55	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 19:55	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 19:55	1
Manganese	3.4		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:55	1
Nickel	0.012	J	0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:55	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 19:55	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:55	1
Zinc	0.039	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 19:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.32		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 03:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 20:19	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 20:19	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:21	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018		0.018	0.0097	mg/Kg	☼	02/23/16 15:15	02/24/16 11:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.36		0.200	0.200	SU			02/23/16 13:29	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-4

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

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.
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-4

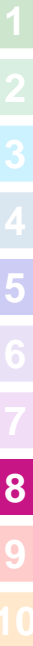
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

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

Chain of Custody Record

Lab Job #: 500-107704

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Total TAL metals		TCLP/SPLP TAL metals		PH % Solids		Preservative Key 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
EJE		1009341.0008.01												
Project Name		Lab Project #												
IL 38		50011804.0008.01												
Project Location/State		Lab PM												Comments
Kane County IL		D. Wright												
Sampler														
S. Cooper														
Lab ID	MS/MSD	Sample ID		Sampling		# of Containers	Matrix	Voc	SVOC	Total TAL metals	TCLP/SPLP TAL metals	PH % Solids		
		Date	Time											
4		3c11-10-Bol (6-1)		2/17/16	0846	2	1	X	X	X	X	X		
2-17-16														

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>[Signature]</u> Company: <u>EA</u> Date: <u>2/17/16</u> Time: <u>1515</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/17/16</u> Time: <u>1515</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/17/16</u> Time: <u>1645</u>	Received By: <u>[Signature]</u> Company: <u>TA-CPT</u> Date: <u>2/18/16</u> Time: <u>0730</u>

Lab Courier: TA

Shipped: _____

Hand Delivered: _____

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

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107704-4

Login Number: 107704

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 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: FAP 347 (IL Route 38) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
48W 800 to 49W 000 blocks of IL 38 ISGS #3011-11 (Agricultural Land)

City: Maple Park State: IL Zip Code: 60151

County: Kane Township: Virgil and Kaneville

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

Latitude: 41.894306 Longitude: -88.570578
(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: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: 60196-1096 Phone: 847-705-4159

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

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 an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 347 (IL Route 38)

Latitude: 41.894306 Longitude: -88.570578

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 appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Locations (See Attachment A) were sampled within the construction zone adjacent to ISGS #3011-11 (Agricultural Land). Refer to PSI Report for ISGS #3011-11 (Agricultural Land) including Table 4-4, and Figures 4-2A&B and 4-3A&B.

- 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]:

See attached data summary table and associated laboratory data package J107704-5, J107703-3, J107704-4, J107704-5, J107704-7, J107704-8, J107704-9, and J107641-6.

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

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

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

Company Name: Ecology and Environment, Inc.

Street Address: 33 West Monroe Street

City: Chicago State: IL Zip Code: 60603

Phone: 312-578-9243

Neil J. Brown

Printed Name:

Neil J. Brown

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

3/17/16

Date:



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

Attachment A

ISGS# 3011-11 (Agricultural Land)

Analytical results from sample points collected at adjacent properties ISGS# 3011-06, ISGS# 3011-10, ISGS# 3011-12, ISGS# 3011-13, ISGS# 3011-14, ISGS# 3011-15 and ISGS# 3011-18 were used to delineate areas of impact.

III (a)

Soil sample points:

- | | |
|---------------|----------------|
| - 3011-11-B01 | - 3011-06-B014 |
| - 3011-11-B02 | - 3011-10-B01 |
| - 3011-11-B03 | - 3011-12-B01 |
| - 3011-11-B04 | - 3011-13-B01 |
| - 3011-11-B05 | - 3011-14-B01 |
| - 3011-11-B06 | - 3011-15-B01 |
| - 3011-11-B07 | - 3011-18-B01 |
| - 3011-11-B08 | |
| - 3011-11-B09 | |

III (b)

Lab packages with associated sample locations

- | | |
|------------------|------------------|
| J107704-5 | |
| - 3011-11-B01 | - 3011-11-B06 |
| - 3011-11-B02 | - 3011-11-B07 |
| - 3011-11-B03 | - 3011-11-B08 |
| - 3011-11-B04 | - 3011-11-B09 |
| - 3011-11-B05 | |
| J107703-3 | J107704-7 |
| - 3011-06-B14 | - 3011-13-B01 |
| J107704-4 | J107704-8 |
| - 3011-10-B01 | - 3011-14-B01 |
| J107704-6 | J107704-9 |
| - 3011-12-B01 | - 3011-15-B01 |
| J107641-6 | |
| - 3011-18-B01 | |




Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A

Key to Data Tables

- MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

Criteria Qualifiers and Shading

- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-11 (Agricultural Land)			Comparison Criteria			
	3011-11-B01	3011-11-B02	3011-11-B03	MACs			TACO
BORING							
SAMPLE	3011-11-B01 (0-1)	3011-11-B02 (0-1)	3011-11-B03 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil	Soil				
DEPTH (feet)	0-1	0-1	0-1				
pH	8.22	8.48	8.22				
VOCs (mg/kg)							
2-Butanone (MEK)	ND U	ND U	ND U	--	--	--	--
Acetone	ND U	ND U	ND U	25	--	--	--
Methyl tert-butyl ether	ND U	ND U	ND U	0.32	--	--	--
SVOCs (mg/kg)							
Acenaphthene	ND U	ND U	ND U	570	--	--	--
Anthracene	0.0064 J	0.016 J	0.0087 J	12,000	--	--	--
Benzo[a]anthracene	0.038	0.069	0.053	0.9	1.8	1.1	--
Benzo[a]pyrene	0.052	0.089	0.088	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.087	0.15	0.13	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	ND U	0.092	0.11	--	--	--	--
Benzo[k]fluoranthene	0.034 J	0.074	0.051	9	--	--	--
Chrysene	0.054	0.089	0.066	88	--	--	--
Fluoranthene	0.055	0.12	0.075	3,100	--	--	--
Fluorene	ND U	ND U	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	ND U	0.064	0.072	0.9	1.6	0.9	--
Naphthalene	ND U	ND U	ND U	1.8	--	--	--
Phenanthrene	0.033 J	0.081	0.043	--	--	--	--
Pyrene	0.14	0.27	0.2	2,300	--	--	--
Inorganics (mg/kg)							
Arsenic	2.8	2.2	2.7	11.3	13	--	--
Barium	36	12	31	1,500	--	--	--
Beryllium	0.28	0.2 J	0.23	22	--	--	--
Boron	8	8.3	6.7	40	--	--	--
Cadmium	0.071 J	0.062 J	0.3	5.2	--	--	--
Calcium	210,000	190,000	180,000	--	--	--	--
Chromium	7.5	8.9	6.6	21	--	--	--
Cobalt	3.6	2.5	3.4	20	--	--	--
Copper	9.2	8.8	7.4	2,900	--	--	--
Iron	7,000	6,200	7,100	15,000	15,900	--	--
Lead	19	52	11	107	--	--	--
Magnesium	120,000	110,000	100,000	325,000	--	--	--
Manganese	320	380	320	630	636	--	--
Mercury	0.011 J	ND U	0.014 J	0.89	--	--	--
Nickel	8.2	6.5	8.1	100	--	--	--
Potassium	600	430	520	--	--	--	--
Selenium	0.5 J	0.3 J	ND U	1.3	--	--	--
Sodium	1,500	800	1,100	--	--	--	--
Vanadium	11	8.1	11	550	--	--	--
Zinc	42	53	39	5,100	--	--	--
TCLP Metals (mg/L)							
Barium	0.51	0.16 J	0.41 J	--	--	--	2
Boron	0.11 J	0.077 J	ND U	--	--	--	2
Cobalt	0.015 J	0.011 J	0.013 J	--	--	--	1
Lead	ND U	0.0078 L	ND U	--	--	--	0.0075
Manganese	3.4 L	2.4 L	3.1 L	--	--	--	0.15
Nickel	0.015 J	0.012 J	0.016 J	--	--	--	0.1
Zinc	ND U	0.25 J	ND U	--	--	--	5
SPLP Metals (mg/L)							
Lead	NA	0.021 L	NA	--	--	--	0.0075
Manganese	0.25 L	0.061	0.23 L	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-11 (Agricultural Land)			Comparison Criteria			
	3011-11-B04	3011-11-B05	3011-11-B06	MACs			TACO
BORING	3011-11-B04	3011-11-B05	3011-11-B06	Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE	3011-11-B04 (0-1)	3011-11-B05 (0-1)	3011-11-B06 (0-1)				
MATRIX	Soil	Soil	Soil				
DEPTH (feet)	0-1	0-1	0-1				
pH	8.7	8.36	8.53				
VOCs (mg/kg)							
2-Butanone (MEK)	ND U	ND U	0.0076	--	--	--	--
Acetone	ND U	ND U	0.046	25	--	--	--
Methyl tert-butyl ether	ND U	ND U	ND U	0.32	--	--	--
SVOCs (mg/kg)							
Acenaphthene	ND U	ND U	0.011 J	570	--	--	--
Anthracene	ND U	0.014 J	0.034 J	12,000	--	--	--
Benzo[a]anthracene	0.034 J	0.061	0.17	0.9	1.8	1.1	--
Benzo[a]pyrene	0.049	0.08	0.17 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.084	0.15	0.36	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	ND U	ND U	0.19	--	--	--	--
Benzo[k]fluoranthene	0.034 J	0.052	0.12	9	--	--	--
Chrysene	0.047	0.081	0.22	88	--	--	--
Fluoranthene	0.046	0.1	0.25	3,100	--	--	--
Fluorene	ND U	ND U	0.011 J	560	--	--	--
Indeno[1,2,3-cd]pyrene	ND U	0.046	0.15	0.9	1.6	0.9	--
Naphthalene	ND U	ND U	0.0087 J	1.8	--	--	--
Phenanthrene	0.025 J	0.063	0.17	--	--	--	--
Pyrene	0.12	0.22	0.63	2,300	--	--	--
Inorganics (mg/kg)							
Arsenic	2.4	4.6	4.2	11.3	13	--	--
Barium	21	46	23	1,500	--	--	--
Beryllium	0.23	0.43	0.32	22	--	--	--
Boron	8.8	6.4	9.7	40	--	--	--
Cadmium	0.06 J	0.12	0.084 J	5.2	--	--	--
Calcium	210,000	98,000	150,000	--	--	--	--
Chromium	5.9	11	12	21	--	--	--
Cobalt	3.1	5.8	4.5	20	--	--	--
Copper	8.4	14	13	2,900	--	--	--
Iron	6,500	10,000	9,600	15,000	15,900	--	--
Lead	16	49	47	107	--	--	--
Magnesium	120,000	54,000	87,000	325,000	--	--	--
Manganese	320	360	430	630	636	--	--
Mercury	0.011 J	0.021	0.02	0.89	--	--	--
Nickel	7.2	12	11	100	--	--	--
Potassium	460	750	940	--	--	--	--
Selenium	0.37 J	0.38 J	ND U	1.3	--	--	--
Sodium	1,100	1,500	1,300	--	--	--	--
Vanadium	8.7	17	14	550	--	--	--
Zinc	41	46	62	5,100	--	--	--
TCLP Metals (mg/L)							
Barium	0.36 J	0.49 J	0.23 J	--	--	--	2
Boron	0.063 J	0.1 J	0.062 J	--	--	--	2
Cobalt	ND U	ND U	ND U	--	--	--	1
Lead	ND U	ND U	ND U	--	--	--	0.0075
Manganese	1.8 L	0.79 L	0.96 L	--	--	--	0.15
Nickel	0.017 J	ND U	ND U	--	--	--	0.1
Zinc	ND U	0.32 J	ND U	--	--	--	5
SPLP Metals (mg/L)							
Lead	NA	NA	NA	--	--	--	0.0075
Manganese	0.26 L	1.8 L	0.12	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-11 (Agricultural Land)			Comparison Criteria			
	3011-11-B07	3011-11-B08	3011-11-B09	MACs			TACO
BORING	3011-11-B07 (0-1)	3011-11-B08 (0-1)	3011-11-B09 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE	Soil	Soil	Soil				
MATRIX	0-1	0-1	0-1				
DEPTH (feet)	8.66	8.24	8.77				
pH							
VOCs (mg/kg)							
2-Butanone (MEK)	ND U	ND U	ND U	--	--	--	--
Acetone	ND U	ND U	ND U	25	--	--	--
Methyl tert-butyl ether	ND U	ND U	0.093	0.32	--	--	--
SVOCs (mg/kg)							
Acenaphthene	ND U	ND U	ND U	570	--	--	--
Anthracene	0.01 J	0.019 J	ND U	12,000	--	--	--
Benzo[a]anthracene	0.06	0.11	0.04	0.9	1.8	1.1	--
Benzo[a]pyrene	0.073	0.13 †	0.052	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.12	0.19	0.081	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	ND U	0.15	ND U	--	--	--	--
Benzo[k]fluoranthene	0.047	0.089	0.037	9	--	--	--
Chrysene	0.075	0.14	0.051	88	--	--	--
Fluoranthene	0.093	0.15	0.05	3,100	--	--	--
Fluorene	ND U	0.0059 J	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	ND U	0.11	0.046	0.9	1.6	0.9	--
Naphthalene	ND U	ND U	ND U	1.8	--	--	--
Phenanthrene	0.053	0.1	0.026 J	--	--	--	--
Pyrene	0.19	0.4	0.14	2,300	--	--	--
Inorganics (mg/kg)							
Arsenic	2.7	4.2	2.2	11.3	13	--	--
Barium	20	31	24	1,500	--	--	--
Beryllium	0.22	0.22	0.16 J	22	--	--	--
Boron	8.7	13	10	40	--	--	--
Cadmium	ND U	0.05 J	0.054 J	5.2	--	--	--
Calcium	160,000	210,000	190,000	--	--	--	--
Chromium	7.3	7.5	8.1	21	--	--	--
Cobalt	3	2.9	2.5	20	--	--	--
Copper	9.7	9.5	8.3	2,900	--	--	--
Iron	6,500	11,000	5,800	15,000	15,900	--	--
Lead	33	22	14	107	--	--	--
Magnesium	93,000	130,000	110,000	325,000	--	--	--
Manganese	280	360	290	630	636	--	--
Mercury	0.018	0.012 J	ND U	0.89	--	--	--
Nickel	7.2	7.9	7.8	100	--	--	--
Potassium	520	510	530	--	--	--	--
Selenium	0.51 J	0.53 J	ND U	1.3	--	--	--
Sodium	690	1,100	820	--	--	--	--
Vanadium	9.1	9.8	9	550	--	--	--
Zinc	40	34	26	5,100	--	--	--
TCLP Metals (mg/L)							
Barium	0.28 J	0.4 J	0.39 J	--	--	--	2
Boron	0.067 J	0.072 J	0.065 J	--	--	--	2
Cobalt	ND U	0.011 J	0.011 J	--	--	--	1
Lead	ND U	ND U	ND U	--	--	--	0.0075
Manganese	1.3 L	3.2 L	2.1 L	--	--	--	0.15
Nickel	ND U	0.013 J	0.012 J	--	--	--	0.1
Zinc	ND U	ND U	ND U	--	--	--	5
SPLP Metals (mg/L)							
Lead	NA	NA	NA	--	--	--	0.0075
Manganese	0.12	0.11	0.11	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-6 (Agricultural Land)	Comparison Criteria			
		MACs			TACO
BORING	3011-06-B14				
SAMPLE	3011-06-B14 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.98				
VOCs (mg/kg)					
Acetone	ND U	25	--	--	--
Methyl tert-butyl ether	0.057 J	0.32	--	--	--
SVOCs (mg/kg)					
2-Methylnaphthalene	ND U	--	--	--	--
Acenaphthene	ND U	570	--	--	--
Acenaphthylene	ND U	--	--	--	--
Anthracene	0.019 J	12,000	--	--	--
Benzo[a]anthracene	0.074	0.9	1.8	1.1	--
Benzo[a]pyrene	0.087	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.17	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.1	--	--	--	--
Benzo[k]fluoranthene	0.049	9	--	--	--
Bis(2-ethylhexyl) phthalate	ND U	46	--	--	--
Chrysene	0.097	88	--	--	--
Dibenzo(a,h)anthracene	ND U	0.09	0.42	0.2	--
Fluoranthene	0.13	3,100	--	--	--
Fluorene	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.069	0.9	1.6	0.9	--
Naphthalene	ND U	1.8	--	--	--
Phenanthrene	0.085	--	--	--	--
Pyrene	0.26	2,300	--	--	--
Inorganics (mg/kg)					
Arsenic	2.9	11.3	13	--	--
Barium	25	1,500	--	--	--
Beryllium	0.19 J	22	--	--	--
Boron	9	40	--	--	--
Cadmium	0.14	5.2	--	--	--
Calcium	190,000	--	--	--	--
Chromium	14	21	--	--	--
Cobalt	3.1	20	--	--	--
Copper	10	2,900	--	--	--
Iron	6,600	15,000	15,900	--	--
Lead	100	107	--	--	--
Magnesium	110,000	325,000	--	--	--
Manganese	290	630	636	--	--
Mercury	0.015 J	0.89	--	--	--
Nickel	7.9	100	--	--	--
Potassium	600	--	--	--	--
Selenium	ND U	1.3	--	--	--
Silver	ND U	4.4	--	--	--
Sodium	1,000	--	--	--	--
Vanadium	11	550	--	--	--
Zinc	50	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.37 J	--	--	--	2
Boron	0.63	--	--	--	2
Cobalt	ND U	--	--	--	1
Lead	0.0091 L	--	--	--	0.0075
Manganese	1.2 L	--	--	--	0.15
Nickel	ND U	--	--	--	0.1
Zinc	0.95	--	--	--	5
SPLP Metals (mg/L)					
Lead	0.31 L	--	--	--	0.0075
Manganese	0.6 L	--	--	--	0.15

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A
CONTAMINANTS OF CONCERN

SITE	ISGS #3011-10 (Residence)	Comparison Criteria			
BORING	3011-10-B01	MACs			TACO
SAMPLE	3011-10-B01 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.36				
VOCs (None Detected)					
SVOCs (mg/kg)					
Acenaphthylene	0.0056 J	--	--	--	--
Anthracene	0.0078 J	12,000	--	--	--
Benzo[a]anthracene	0.046	0.9	1.8	1.1	--
Benzo[a]pyrene	0.057	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.1	0.9	2.1	1.5	--
Benzo[k]fluoranthene	0.04	9	--	--	--
Chrysene	0.058	88	--	--	--
Fluoranthene	0.072	3,100	--	--	--
Phenanthrene	0.03 J	--	--	--	--
Pyrene	0.1	2,300	--	--	--
Inorganics (mg/kg)					
Arsenic	6	11.3	13	--	--
Barium	39	1,500	--	--	--
Beryllium	0.3	22	--	--	--
Boron	6.9	40	--	--	--
Cadmium	0.057 J	5.2	--	--	--
Calcium	140,000	--	--	--	--
Chromium	8.7	21	--	--	--
Cobalt	5.1	20	--	--	--
Copper	14	2,900	--	--	--
Iron	11,000	15,000	15,900	--	--
Lead	22	107	--	--	--
Magnesium	54,000	325,000	--	--	--
Manganese	290	630	636	--	--
Mercury	0.018	0.89	--	--	--
Nickel	12	100	--	--	--
Potassium	650	--	--	--	--
Selenium	0.53 J	1.3	--	--	--
Sodium	1,400	--	--	--	--
Vanadium	14	550	--	--	--
Zinc	58	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.52	--	--	--	2
Boron	0.09 J	--	--	--	2
Manganese	3.4 L	--	--	--	0.15
Nickel	0.012 J	--	--	--	0.1
SPLP Metals (mg/L)					
Manganese	0.32 L	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-12 (Farmstead)	Comparison Criteria			
BORING	3011-12-B01	MACs			TACO
SAMPLE	3011-12-B01 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.98				
VOCs (None Detected)					
SVOCs (mg/kg)					
Anthracene	0.015 J	12,000	--	--	--
Benzo[a]anthracene	0.09	0.9	1.8	1.1	--
Benzo[a]pyrene	0.12 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.19	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.15	--	--	--	--
Benzo[k]fluoranthene	0.084	9	--	--	--
Chrysene	0.12	88	--	--	--
Fluoranthene	0.11	3,100	--	--	--
Indeno[1,2,3-cd]pyrene	0.11	0.9	1.6	0.9	--
Phenanthrene	0.073	--	--	--	--
Pyrene	0.3	2,300	--	--	--
Inorganics (mg/kg)					
Arsenic	1.9	11.3	13	--	--
Barium	21	1,500	--	--	--
Beryllium	0.19 J	22	--	--	--
Boron	8.4	40	--	--	--
Cadmium	0.34	5.2	--	--	--
Calcium	190,000	--	--	--	--
Chromium	9.6	21	--	--	--
Cobalt	2.7	20	--	--	--
Copper	10	2,900	--	--	--
Iron	7,600	15,000	15,900	--	--
Lead	19	107	--	--	--
Magnesium	110,000	325,000	--	--	--
Manganese	310	630	636	--	--
Nickel	7.5	100	--	--	--
Potassium	500	--	--	--	--
Selenium	0.41 J	1.3	--	--	--
Sodium	930	--	--	--	--
Vanadium	9	550	--	--	--
Zinc	36	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.25 J	--	--	--	2
Boron	0.064 J	--	--	--	2
Manganese	1.8 L	--	--	--	0.15
Nickel	0.013 J	--	--	--	0.1
SPLP Metals (mg/L)					
Manganese	0.14	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-13 (Farmstead)	Comparison Criteria			
BORING	3011-13-B01	MACs			TACO
SAMPLE	3011-13-B01 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.47				
VOCs (mg/kg)					
Methyl tert-butyl ether	0.11	0.32	--	--	--
SVOCs (mg/kg)					
Acenaphthene	ND U	570	--	--	--
Acenaphthylene	ND U	--	--	--	--
Anthracene	0.016 J	12,000	--	--	--
Benzo[a]anthracene	0.099	0.9	1.8	1.1	--
Benzo[a]pyrene	0.13 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.25	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.09	--	--	--	--
Benzo[k]fluoranthene	0.091	9	--	--	--
Chrysene	0.13	88	--	--	--
Dibenzo(a,h)anthracene	ND U	0.09	0.42	0.2	--
Fluoranthene	0.21	3,100	--	--	--
Fluorene	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.085	0.9	1.6	0.9	--
Phenanthrene	0.1	--	--	--	--
Pyrene	0.3	2,300	--	--	--
Inorganics (mg/kg)					
Arsenic	2.1	11.3	13	--	--
Barium	26	1,500	--	--	--
Beryllium	0.24	22	--	--	--
Boron	11	40	--	--	--
Cadmium	0.043 J	5.2	--	--	--
Calcium	210,000	--	--	--	--
Chromium	5.7	21	--	--	--
Cobalt	2.9	20	--	--	--
Copper	7.4	2,900	--	--	--
Iron	5,800	15,000	15,900	--	--
Lead	16	107	--	--	--
Magnesium	120,000	325,000	--	--	--
Manganese	300	630	636	--	--
Nickel	6.4	100	--	--	--
Potassium	530	--	--	--	--
Sodium	1,200	--	--	--	--
Vanadium	9	550	--	--	--
Zinc	23	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.43 J	--	--	--	2
Boron	0.087 J	--	--	--	2
Manganese	1 L	--	--	--	0.15
Nickel	0.011 J	--	--	--	0.1
SPLP Metals (mg/L)					
Manganese	0.049	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-14 (Residences)	Comparison Criteria			
		MACs			TACO
BORING	3011-14-B01				
SAMPLE	3011-14-B01 (0-1)				
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.87	Most Stringent	Within an MSA	Within Chicago	SCGIER
VOCs (None Detected)					
SVOCs (mg/kg)					
Acenaphthene	0.0078 J	570	--	--	--
Acenaphthylene	0.0058 J	--	--	--	--
Anthracene	0.028 J	12,000	--	--	--
Benzo[a]anthracene	0.11	0.9	1.8	1.1	--
Benzo[a]pyrene	0.12 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.21	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.062	--	--	--	--
Benzo[k]fluoranthene	0.072	9	--	--	--
Chrysene	0.13	88	--	--	--
Fluoranthene	0.27	3,100	--	--	--
Fluorene	0.007 J	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.057	0.9	1.6	0.9	--
Phenanthrene	0.13	--	--	--	--
Pyrene	0.26	2,300	--	--	--
Inorganics (mg/kg)					
Arsenic	2.7	11.3	13	--	--
Barium	28	1,500	--	--	--
Beryllium	0.22	22	--	--	--
Boron	7.7	40	--	--	--
Cadmium	0.12	5.2	--	--	--
Calcium	170,000	--	--	--	--
Chromium	12	21	--	--	--
Cobalt	3.4	20	--	--	--
Copper	9.4	2,900	--	--	--
Iron	7,600	15,000	15,900	--	--
Lead	67	107	--	--	--
Magnesium	97,000	325,000	--	--	--
Manganese	380	630	636	--	--
Mercury	0.0095 J	0.89	--	--	--
Nickel	7.9	100	--	--	--
Potassium	550	--	--	--	--
Selenium	0.41 J	1.3	--	--	--
Sodium	850	--	--	--	--
Vanadium	15	550	--	--	--
Zinc	39	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.37 J	--	--	--	2
Boron	0.062 J	--	--	--	2
Manganese	1 L	--	--	--	0.15
Zinc	0.47 J	--	--	--	5
SPLP Metals (mg/L)					
Manganese	0.39 L	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-15 (Vacant Land)		Comparison Criteria			
BORING	3011-15-B01		MACs			TACO
SAMPLE	3011-15-B01 (0-1)	3011-15-B01 (0-1)D	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil				
DEPTH (feet)	0-1	0-1				
pH	8.35	8.41				
VOCs (None Detected)						
SVOCs (mg/kg)						
Anthracene	0.016 J	0.022 J	12,000	--	--	--
Benzo[a]anthracene	0.078	0.078	0.9	1.8	1.1	--
Benzo[a]pyrene	0.09	0.1 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.16	0.19	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.062	0.07	--	--	--	--
Benzo[k]fluoranthene	0.081	0.068	9	--	--	--
Bis(2-ethylhexyl) phthalate	0.48	ND U	46	--	--	--
Chrysene	0.099	0.11	88	--	--	--
Fluoranthene	0.18	0.19	3,100	--	--	--
Fluorene	ND U	0.0071 J	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.05	0.055	0.9	1.6	0.9	--
Phenanthrene	0.088	0.12	--	--	--	--
Pyrene	0.2	0.24	2,300	--	--	--
Inorganics (mg/kg)						
Arsenic	3	4.4	11.3	13	--	--
Barium	25	43	1,500	--	--	--
Beryllium	0.32	0.35	22	--	--	--
Boron	7.6	7.5	40	--	--	--
Cadmium	0.13	0.17	5.2	--	--	--
Calcium	140,000	130,000	--	--	--	--
Chromium	9.3	14	21	--	--	--
Cobalt	3.8	5.3	20	--	--	--
Copper	11	18	2,900	--	--	--
Iron	8,400	17,000 †m	15,000	15,900	--	--
Lead	74	84	107	--	--	--
Magnesium	81,000	60,000	325,000	--	--	--
Manganese	340	420	630	636	--	--
Mercury	0.017 J	0.019	0.89	--	--	--
Nickel	9.2	15	100	--	--	--
Potassium	560	660	--	--	--	--
Selenium	0.44 J	0.52 J	1.3	--	--	--
Sodium	690	820	--	--	--	--
Vanadium	12	14	550	--	--	--
Zinc	56	55	5,100	--	--	--
TCLP Metals (mg/L)						
Barium	0.27 J	0.31 J	--	--	--	2
Boron	0.083 J	0.07 J	--	--	--	2
Iron	ND U	ND U	--	--	--	5
Lead	ND U	0.0076 L	--	--	--	0.0075
Manganese	1.2 J L	2.5 J L	--	--	--	0.15
Zinc	0.4 J	0.42 J	--	--	--	5
SPLP Metals (mg/L)						
Lead	NA	0.11 L	--	--	--	0.0075
Manganese	0.24 L	0.29 L	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-18 (Agricultural Land)				Comparison Criteria			
	3011-18-B01		3011-18-B02	3011-18-B03	MACs			TACO
BORING	3011-18-B01 (0-1)		3011-18-B02 (0-1)	3011-18-B03 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE	3011-18-B01 (0-1)		3011-18-B02 (0-1)	3011-18-B03 (0-1)				
MATRIX	Soil	Soil	Soil	Soil				
DEPTH (feet)	0-1	0-1	0-1	0-1				
pH	8.42	8.51	8.21	8.44				
VOCs (mg/kg)								
2-Butanone (MEK)	ND U	ND U	0.0084	ND U	--	--	--	--
Acetone	ND U	ND U	0.038	ND U	25	--	--	--
SVOCs (mg/kg)								
Acenaphthylene	ND U	ND U	ND U	0.0057 J	--	--	--	--
Anthracene	ND U	ND U	0.0083 J	0.0072 J	12,000	--	--	--
Benzo[a]anthracene	0.041	0.032 J	0.047	0.04	0.9	1.8	1.1	--
Benzo[a]pyrene	0.069	0.039	0.094 †	0.046	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.097	0.077	0.16	0.093	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.043	0.024 J	0.085	0.022 J	--	--	--	--
Benzo[k]fluoranthene	0.05	0.025 J	0.058	0.03 J	9	--	--	--
Chrysene	0.053	0.042	0.079	0.054	88	--	--	--
Dibenzo(a,h)anthracene	ND U	ND U	ND U	ND U	0.09	0.42	0.2	--
Fluoranthene	0.059	0.073	0.095	0.084	3,100	--	--	--
Fluorene	ND U	ND U	ND U	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	ND U	0.022 J	0.054	0.022 J	0.9	1.6	0.9	--
Phenanthrene	0.033 J	0.026 J	0.039	0.042	--	--	--	--
Pyrene	0.12	0.088	0.16	0.11	2,300	--	--	--
Inorganics (mg/kg)								
Antimony	ND U	ND U	ND U	ND U	5	--	--	--
Arsenic	4.7	3	3.9	3.3	11.3	13	--	--
Barium	38	25	42	47	1,500	--	--	--
Beryllium	0.35	0.25	0.39	0.33	22	--	--	--
Boron	6.6	6.3	5.2	6.9	40	--	--	--
Cadmium	0.18	0.18	0.19	0.15	5.2	--	--	--
Calcium	110,000	150,000	110,000	110,000	--	--	--	--
Chromium	10	8.3	11	8.6	21	--	--	--
Cobalt	5.5	4.1	5.2	4.5	20	--	--	--
Copper	13	12	13	12	2,900	--	--	--
Iron	9,000	7,800	10,000	8,500	15,000	15,900	--	--
Lead	76	68	77	42	107	--	--	--
Magnesium	53,000	88,000	46,000	51,000	325,000	--	--	--
Manganese	370	330	300	320	630	636	--	--
Mercury	0.017 J	0.016 J	0.013 J	0.019	0.89	--	--	--
Nickel	12	9.1	13	10	100	--	--	--
Potassium	700	510	660	640	--	--	--	--
Selenium	ND U	ND U	ND U	ND U	1.3	--	--	--
Sodium	1,300	1,000	1,200	1,300	--	--	--	--
Vanadium	14	12	15	13	550	--	--	--
Zinc	62	51	68	54	5,100	--	--	--
TCLP Metals (mg/L)								
Barium	0.31 J	0.27 J	0.48 J	0.46 J	--	--	--	2
Boron	0.53	0.5	0.47 J	0.61	--	--	--	2
Chromium	ND U	ND U	ND U	ND U	--	--	--	0.1
Cobalt	ND U	ND U	ND U	ND U	--	--	--	1
Lead	ND U	ND U	0.011 L	ND U	--	--	--	0.0075
Manganese	0.25 J L	0.97 J L	4 L	0.36 L	--	--	--	0.15
Nickel	ND U	ND U	0.012 J	ND U	--	--	--	0.1
Zinc	ND U	0.13 J	0.17 J	0.14 J	--	--	--	5
SPLP Metals (mg/L)								
Lead	NA	NA	0.23 L	NA	--	--	--	0.0075
Manganese	0.8 L	0.91 L	0.63 L	0.76 L	--	--	--	0.15

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: 500-107641-3
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
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Attn: Mr. Dean Tiebout

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LINKS

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Job ID: 500-107641-3

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107641-3

Comments

No additional comments.

Receipt

The samples were received on 2/17/2016 7:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.5° C, 2.8° C, 3.2° C and 3.5° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-323872: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: The following analyte recovered outside control limits for the LCS associated with 500-324044: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-18-B01 (0-1) (500-107641-9), 3011-18-B05 (0-1) (500-107641-12), 3011-18-B07 (0-1) (500-107641-13), 3011-18-B10 (0-1) (500-107641-15), 3011-18-B11 (0-1) (500-107641-16), (500-107641-E-1-D MS) and (500-107641-E-1-E MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324170 and analytical batch 500-324562 contained Calcium and Magnesium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 6020A: The continuing calibration verification (CCV) associated with batch 500-324078, at lines 88 and 92 recovered above the upper control limit for Thallium. The affected samples were 500-107641-11 through 20. Also the CCVL at line 94 was outside the upper control limit for Thallium. The samples associated with these CCV and CCVL were non-detects for the affected analytes, therefore the samples were reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3



Client Sample ID: 3011-18-B01 (0-1)

Lab Sample ID: 500-107641-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.033	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.059		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.12		0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.041		0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.053		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.097		0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.050		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.069		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.043		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.7		0.60	0.28	mg/Kg	1	☼	6010B	Total/NA
Barium	38		0.60	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.35		0.24	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	6.6		3.0	0.42	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18		0.12	0.035	mg/Kg	1	☼	6010B	Total/NA
Calcium	110000	B	120	38	mg/Kg	10	☼	6010B	Total/NA
Chromium	10	B	0.60	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.5		0.30	0.068	mg/Kg	1	☼	6010B	Total/NA
Copper	13		0.60	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	9000	B	12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	76		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	53000	B	6.0	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	370		0.60	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	12		0.60	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	700		30	4.9	mg/Kg	1	☼	6010B	Total/NA
Sodium	1300		60	7.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.30	0.087	mg/Kg	1	☼	6010B	Total/NA
Zinc	62		1.2	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B01 (0-1) (Continued)

Lab Sample ID: 500-107641-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.53		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.25		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.093	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.80		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.017	J	0.019	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.42		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-18-B01 (0-1)D

Lab Sample ID: 500-107641-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.026	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.073		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.088		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.032	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.042		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.077		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.025	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.039		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.022	J	0.038	0.0099	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.024	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.0		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	25		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.25		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	6.3		2.9	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18		0.12	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	150000	B	120	37	mg/Kg	10	☼	6010B	Total/NA
Chromium	8.3	B	0.58	0.099	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.1		0.29	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	12		0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	7800	B	12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	68		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	88000	B	58	23	mg/Kg	10	☼	6010B	Total/NA
Manganese	330		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.1		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	510		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Sodium	1000		58	7.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.29	0.084	mg/Kg	1	☼	6010B	Total/NA
Zinc	51		1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.27	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.50		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.97		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.13	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.91		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.016	J	0.017	0.0090	mg/Kg	1	☼	7471B	Total/NA
pH	8.51		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107641-9	3011-18-B01 (0-1)	Solid	02/16/16 12:50	02/17/16 07:45
500-107641-10	3011-18-B01 (0-1)D	Solid	02/16/16 12:50	02/17/16 07:45

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B01 (0-1)

Lab Sample ID: 500-107641-9

Date Collected: 02/16/16 12:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 82.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.022		0.022	0.0042	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Benzene	<0.0054		0.0054	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Bromodichloromethane	<0.0054		0.0054	0.00091	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Bromoform	<0.0054		0.0054	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Bromomethane	<0.0054 *		0.0054	0.0020	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
2-Butanone (MEK)	<0.0054		0.0054	0.0019	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Carbon disulfide	<0.0054		0.0054	0.0020	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Carbon tetrachloride	<0.0054		0.0054	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Chlorobenzene	<0.0054		0.0054	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Chloroethane	<0.0054		0.0054	0.0023	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Chloroform	<0.0054		0.0054	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Chloromethane	<0.0054		0.0054	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
cis-1,2-Dichloroethene	<0.0054		0.0054	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
cis-1,3-Dichloropropene	<0.0054		0.0054	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Dibromochloromethane	<0.0054		0.0054	0.00062	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
1,1-Dichloroethane	<0.0054		0.0054	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
1,2-Dichloroethane	<0.0054		0.0054	0.00080	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
1,1-Dichloroethene	<0.0054		0.0054	0.0020	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
1,2-Dichloropropane	<0.0054		0.0054	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
1,3-Dichloropropane, Total	<0.0054		0.0054	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Ethylbenzene	<0.0054		0.0054	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
2-Hexanone	<0.0054		0.0054	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Methylene Chloride	<0.0054		0.0054	0.0041	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
4-Methyl-2-pentanone (MIBK)	<0.0054		0.0054	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Methyl tert-butyl ether	<0.0054		0.0054	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Styrene	<0.0054		0.0054	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
1,1,2,2-Tetrachloroethane	<0.0054		0.0054	0.00086	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Tetrachloroethene	<0.0054		0.0054	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Toluene	<0.0054		0.0054	0.0019	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
trans-1,2-Dichloroethene	<0.0054		0.0054	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
trans-1,3-Dichloropropene	<0.0054		0.0054	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
1,1,1-Trichloroethane	<0.0054		0.0054	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
1,1,2-Trichloroethane	<0.0054		0.0054	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Trichloroethene	<0.0054		0.0054	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Vinyl acetate	<0.0054		0.0054	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Vinyl chloride	<0.0054		0.0054	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Xylenes, Total	<0.011		0.011	0.0020	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 122	02/17/16 08:40	02/22/16 18:58	1
Dibromofluoromethane	107		75 - 120	02/17/16 08:40	02/22/16 18:58	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	02/17/16 08:40	02/22/16 18:58	1
Toluene-d8 (Surr)	112		75 - 122	02/17/16 08:40	02/22/16 18:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B01 (0-1)

Lab Sample ID: 500-107641-9

Date Collected: 02/16/16 12:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 82.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Phenanthrene	0.033	J	0.039	0.0055	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Fluoranthene	0.059		0.039	0.0073	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Pyrene	0.12		0.039	0.0078	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Benzo[a]anthracene	0.041		0.039	0.0053	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B01 (0-1)

Lab Sample ID: 500-107641-9

Date Collected: 02/16/16 12:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 82.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.053		0.039	0.011	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Benzo[b]fluoranthene	0.097		0.039	0.0085	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Benzo[k]fluoranthene	0.050		0.039	0.012	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Benzo[a]pyrene	0.069		0.039	0.0076	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Benzo[g,h,i]perylene	0.043		0.039	0.013	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	87		25 - 110	02/22/16 06:59	02/28/16 15:49	1
Phenol-d5	82		31 - 110	02/22/16 06:59	02/28/16 15:49	1
Nitrobenzene-d5	72		25 - 115	02/22/16 06:59	02/28/16 15:49	1
2-Fluorobiphenyl	74		25 - 119	02/22/16 06:59	02/28/16 15:49	1
2,4,6-Tribromophenol	75		35 - 137	02/22/16 06:59	02/28/16 15:49	1
Terphenyl-d14	177	X	36 - 134	02/22/16 06:59	02/28/16 15:49	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	☼	02/23/16 16:44	02/26/16 03:30	1
Arsenic	4.7		0.60	0.28	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Barium	38		0.60	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Beryllium	0.35		0.24	0.052	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Boron	6.6		3.0	0.42	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Cadmium	0.18		0.12	0.035	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Calcium	110000	B	120	38	mg/Kg	☼	02/23/16 16:44	02/26/16 05:36	10
Chromium	10	B	0.60	0.10	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Cobalt	5.5		0.30	0.068	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Copper	13		0.60	0.13	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Iron	9000	B	12	4.6	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Lead	76		0.30	0.15	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Magnesium	53000	B	6.0	2.4	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Manganese	370		0.60	0.12	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Nickel	12		0.60	0.16	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Potassium	700		30	4.9	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Selenium	<0.60		0.60	0.30	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Sodium	1300		60	7.9	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Thallium	<0.60		0.60	0.29	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Vanadium	14		0.30	0.087	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Zinc	62		1.2	0.38	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.31	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 21:08	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 21:08	1
Boron	0.53		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 21:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B01 (0-1)

Lab Sample ID: 500-107641-9

Date Collected: 02/16/16 12:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 82.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/21/16 16:00	02/23/16 21:08	1
Chromium	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:08	1
Cobalt	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:08	1
Iron	<0.40		0.40	0.20	mg/L		02/21/16 16:00	02/23/16 21:08	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/21/16 16:00	02/23/16 21:08	1
Manganese	0.25		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:08	1
Nickel	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:08	1
Selenium	<0.050		0.050	0.020	mg/L		02/21/16 16:00	02/23/16 21:08	1
Silver	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:08	1
Zinc	0.093	J B	0.50	0.020	mg/L		02/21/16 16:00	02/23/16 21:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.80		0.025	0.010	mg/L		02/23/16 09:20	02/25/16 03:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/21/16 16:00	02/22/16 19:46	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		02/21/16 16:00	02/22/16 19:46	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/16 15:15	02/23/16 11:11	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	J	0.019	0.010	mg/Kg	☼	02/23/16 15:15	02/24/16 12:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.42		0.200	0.200	SU			02/19/16 18:13	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B01 (0-1)D

Lab Sample ID: 500-107641-10

Date Collected: 02/16/16 12:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0035	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Benzene	<0.0045		0.0045	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Bromodichloromethane	<0.0045		0.0045	0.00076	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Bromoform	<0.0045		0.0045	0.00092	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Bromomethane	<0.0045	*	0.0045	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Carbon disulfide	<0.0045		0.0045	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Carbon tetrachloride	<0.0045		0.0045	0.00097	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Chloroethane	<0.0045		0.0045	0.0019	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Chloroform	<0.0045		0.0045	0.00088	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00092	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Dibromochloromethane	<0.0045		0.0045	0.00052	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
1,1-Dichloroethane	<0.0045		0.0045	0.00093	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
1,2-Dichloroethane	<0.0045		0.0045	0.00067	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
1,1-Dichloroethene	<0.0045		0.0045	0.0016	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Methylene Chloride	<0.0045		0.0045	0.0034	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00093	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Styrene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
1,1,1,2-Tetrachloroethane	<0.0045		0.0045	0.00072	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Tetrachloroethene	<0.0045		0.0045	0.00094	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00088	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Vinyl acetate	<0.0045		0.0045	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Xylenes, Total	<0.0090		0.0090	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 122	02/17/16 08:40	02/22/16 19:23	1
Dibromofluoromethane	105		75 - 120	02/17/16 08:40	02/22/16 19:23	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 134	02/17/16 08:40	02/22/16 19:23	1
Toluene-d8 (Surr)	110		75 - 122	02/17/16 08:40	02/22/16 19:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B01 (0-1)D

Lab Sample ID: 500-107641-10

Date Collected: 02/16/16 12:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2-Methylnaphthalene	<0.038		0.038	0.0070	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Phenanthrene	0.026	J	0.038	0.0053	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Fluoranthene	0.073		0.038	0.0071	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Pyrene	0.088		0.038	0.0076	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Benzo[a]anthracene	0.032	J	0.038	0.0051	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B01 (0-1)D

Lab Sample ID: 500-107641-10

Date Collected: 02/16/16 12:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.042		0.038	0.010	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Benzo[b]fluoranthene	0.077		0.038	0.0082	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Benzo[k]fluoranthene	0.025 J		0.038	0.011	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Benzo[a]pyrene	0.039		0.038	0.0074	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Indeno[1,2,3-cd]pyrene	0.022 J		0.038	0.0099	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Benzo[g,h,i]perylene	0.024 J		0.038	0.012	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	75		25 - 110	02/22/16 06:59	03/01/16 01:19	1
Phenol-d5	69		31 - 110	02/22/16 06:59	03/01/16 01:19	1
Nitrobenzene-d5	65		25 - 115	02/22/16 06:59	03/01/16 01:19	1
2-Fluorobiphenyl	69		25 - 119	02/22/16 06:59	03/01/16 01:19	1
2,4,6-Tribromophenol	35		35 - 137	02/22/16 06:59	03/01/16 01:19	1
Terphenyl-d14	117		36 - 134	02/22/16 06:59	03/01/16 01:19	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	☼	02/23/16 16:44	02/26/16 03:35	1
Arsenic	3.0		0.58	0.27	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Barium	25		0.58	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Beryllium	0.25		0.23	0.050	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Boron	6.3		2.9	0.40	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Cadmium	0.18		0.12	0.033	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Calcium	150000 B		120	37	mg/Kg	☼	02/23/16 16:44	02/26/16 05:40	10
Chromium	8.3 B		0.58	0.099	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Cobalt	4.1		0.29	0.065	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Copper	12		0.58	0.13	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Iron	7800 B		12	4.5	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Lead	68		0.29	0.14	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Magnesium	88000 B		58	23	mg/Kg	☼	02/23/16 16:44	02/26/16 05:40	10
Manganese	330		0.58	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Nickel	9.1		0.58	0.16	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Potassium	510		29	4.7	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Selenium	<0.58		0.58	0.29	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Sodium	1000		58	7.6	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Thallium	<0.58		0.58	0.28	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Vanadium	12		0.29	0.084	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Zinc	51		1.2	0.37	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.27 J		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 21:15	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 21:15	1
Boron	0.50		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 21:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B01 (0-1)D

Lab Sample ID: 500-107641-10

Date Collected: 02/16/16 12:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/21/16 16:00	02/23/16 21:15	1
Chromium	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:15	1
Cobalt	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:15	1
Iron	<0.40		0.40	0.20	mg/L		02/21/16 16:00	02/23/16 21:15	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/21/16 16:00	02/23/16 21:15	1
Manganese	0.97		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:15	1
Nickel	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:15	1
Selenium	<0.050		0.050	0.020	mg/L		02/21/16 16:00	02/23/16 21:15	1
Silver	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:15	1
Zinc	0.13	J B	0.50	0.020	mg/L		02/21/16 16:00	02/23/16 21:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.91		0.025	0.010	mg/L		02/23/16 09:20	02/25/16 03:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/21/16 16:00	02/22/16 19:50	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		02/21/16 16:00	02/22/16 19:50	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/16 15:15	02/23/16 11:16	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016	J	0.017	0.0090	mg/Kg	☼	02/23/16 15:15	02/24/16 12:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.51		0.200	0.200	SU			02/19/16 18:23	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC 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.
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

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

Chain of Custody Record

Lab Job #: 500-107641

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
EE		1609341-001E-01									
Project Name		Lab Project #		# of Containers		Matrix		Matrix		Comments	
TC 30		50011661									
Project Location/State		Lab PM		Date		Time		Matrix		Comments	
Kane County, IL		D. W. J. H.									
Sampler		Sampling		Date		Time		Matrix		Comments	
S. Cooper											
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix					
5		3011-18-1308 (0-1)	2/16/16	1130	2	S	X	X	X	X	
6		3011-18-1306 (0-1)	2/16/16	1135	2	S	X	X	X	X	
7		3011-18-1304 (0-1)	2/16/16	1140	2	S	X	X	X	X	
8		3011-18-1302 (0-1)	2/16/16	1145	2	S	X	X	X	X	
9		3011-18-1301 (0-1)	2/16/16	1250	2	S	X	X	X	X	
10		3011-18-1301 (0-1) D	2/16/16	1258	2	S	X	X	X	X	
11		3011-18-1303 (0-1)	2/16/16	1305	2	S	X	X	X	X	
12		3011-18-1305 (0-1)	2/16/16	1310	2	S	X	X	X	X	
13		3011-18-1307 (0-1)	2/16/16	1325	2	S	X	X	X	X	
14		3011-18-1309 (0-1)	2/16/16	1330	2	S	X	X	X	X	

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>S. Cooper</u> Company: <u>EE</u> Date: <u>2/16/16</u> Time: <u>1530</u>	Received By: <u>[Signature]</u> Company: <u>A</u> Date: <u>2/16/16</u> Time: <u>1530</u>	Lab Courier: <u>TA</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/16/16</u> Time: <u>1215</u>	Received By: <u>[Signature]</u> Company: <u>TA-CERT</u> Date: <u>2/17/16</u> Time: <u>0745</u>	Shipped: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: _____

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

Client Comments: _____

Lab Comments: _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 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 #: 500-107641
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
EE		1009741-0008.d									
Project Name		Lab Project #		Date		Time		# of Containers		Matrix	
FL 78		S0011E04		2/16/16		1340		2 5		VOC	
Project Location/State		Lab PM		Date		Time		# of Containers		Matrix	
Kane County, IL		D. Wright		2/16/16		1350		2 3		SVOC	
Sampler		Lab PM		Date		Time		# of Containers		Matrix	
J. Cooper		D. Wright		2/16/16		1350		2 3		Total PCB Meths TCDF/PCDF PAH mobile pH/95 Solids	
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix					
15		Soil-18-B10 (0-1)	2/16/16	1340	2 5	X	X	X	X	X	
16		Soil-18-B11 (0-1)	2/16/16	1350	2 3	X	X	X	X	X	

- Preservative Key
- HCL, Cool to 4°
 - H2SO4, Cool to 4°
 - HNO3, Cool to 4°
 - NaOH, Cool to 4°
 - NaOH/Zn, Cool to 4°
 - NaHSO4
 - Cool to 4°
 - None
 - Other

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days ___ Other 10 Days

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>[Signature]</u> Company: <u>EE</u> Date: <u>2/16/16</u> Time: <u>1530</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/16/16</u> Time: <u>1530</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/16/16</u> Time: <u>1715</u>	Received By: <u>[Signature]</u> Company: <u>TA-CRT</u> Date: <u>2/17/16</u> Time: <u>0948</u>

Lab Courier: [Signature]
 Shipped: _____
 Hand Delivered: _____

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

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107641-3

Login Number: 107641

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.8,2.5,3.2,3.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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: 500-107703-3
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 12:42:03 PM
Jodie Bracken, Project Management Assistant II
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Designee for
Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Job ID: 500-107703-3

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107703-3

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: Due to internal standard (ISTD) area failures, a dilution was required for the following samples: 3011-06-B14 (0-1) (500-107703-9), 3011-06-B07 (0-1) (500-107703-12), 3011-06-B04 (0-1) (500-107703-18), 3011-06-B06 (0-1) (500-107703-19) and 3011-06-B12 (0-1) (500-107703-22). The samples were initially analyzed without dilution. All internal standards were outside the QC limits. The samples were re-analyzed with similar results. No usable data was obtained from the un-diluted runs. The samples were re-analyzed at a dilution using the methanol extraction method. All internal standard areas were within limits in the diluted run. Elevated reporting limits have been provided.

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with batches 324522 and 324843: Vinyl Acetate. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one base/neutral surrogate outside acceptance limits: 3011-06-B14 (0-1) (500-107703-9), 3011-06-B11 (0-1) (500-107703-10), 3011-06-B09 (0-1) (500-107703-11), 3011-06-B07 (0-1) (500-107703-12), 3011-06-B05 (0-1) (500-107703-13), 3011-06-B02 (0-1) (500-107703-14), 3011-06-B01 (0-1) (500-107703-15), 3011-06-B01 (0-1)D (500-107703-16), 3011-06-B03 (0-1) (500-107703-17), 3011-06-B04 (0-1) (500-107703-18), 3011-06-B06 (0-1) (500-107703-19), 3011-06-B08 (0-1) (500-107703-20), 3011-06-B10 (0-1) (500-107703-21), (500-107703-E-1-B MS), (500-107703-E-1-C MSD), (500-107703-E-21-B MS) and (500-107703-E-21-C MS). The laboratory's SOP allows one acid and/or one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-324037 and analytical batch 500-324749 had 1 analyte outside control limits: Bis(2-chloroethyl)ether; therefore, corrective action was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324371 and analytical batch 500-324528 contained Calcium, Iron, and Magnesium above the reporting limit (RL). Associated samples 3011-06-B10 (0-1) (500-107703-21), 3011-06-B12 (0-1) (500-107703-22) and 3011-06-B13 (0-1) (500-107703-23) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 7471B: The matrix spike (MS) recoveries for 500-107703-1 were outside control limits for Hg. The sample appears to have been double spiked. The MSD was within control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Job ID: 500-107703-3 (Continued)

Laboratory: TestAmerica Chicago (Continued)

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B14 (0-1)

Lab Sample ID: 500-107703-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.057	J	0.061	0.024	mg/Kg	50	☼	8260B	Total/NA
Phenanthrene	0.085		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.019	J	0.037	0.0062	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.13		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.26		0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.074		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.097		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.17		0.037	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.049		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.087		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.069		0.037	0.0096	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.10		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.9		0.57	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	25		0.57	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.19	J	0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	9.0		2.9	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14		0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	190000	B	110	37	mg/Kg	10	☼	6010B	Total/NA
Chromium	14	B	0.57	0.099	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.1		0.29	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	10		0.57	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	6600		11	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	100		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	110000		57	23	mg/Kg	10	☼	6010B	Total/NA
Manganese	290	B	0.57	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.9		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	600		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Sodium	1000		57	7.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	11		0.29	0.084	mg/Kg	1	☼	6010B	Total/NA
Zinc	50		1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.37	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.63		0.50	0.050	mg/L	1		6010B	TCLP
Lead	0.0091		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.95	B	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.31		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.60		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.015	J	0.017	0.0090	mg/Kg	1	☼	7471B	Total/NA
pH	8.98		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107703-9	3011-06-B14 (0-1)	Solid	02/17/16 09:45	02/18/16 07:30

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B14 (0-1)

Lab Sample ID: 500-107703-9

Date Collected: 02/17/16 09:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.30		0.30	0.11	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Benzene	<0.015		0.015	0.0089	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Bromodichloromethane	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Bromoform	<0.061		0.061	0.029	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Bromomethane	<0.12		0.12	0.048	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
2-Butanone (MEK)	<0.30		0.30	0.13	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Carbon disulfide	<0.12		0.12	0.049	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Carbon tetrachloride	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Chlorobenzene	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Chloroethane	<0.061		0.061	0.031	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Chloroform	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Chloromethane	<0.061		0.061	0.019	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
cis-1,2-Dichloroethene	<0.061		0.061	0.025	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
cis-1,3-Dichloropropene	<0.061		0.061	0.025	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Dibromochloromethane	<0.061		0.061	0.030	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,1-Dichloroethane	<0.061		0.061	0.025	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,2-Dichloroethane	<0.061		0.061	0.024	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,1-Dichloroethene	<0.061		0.061	0.024	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,2-Dichloropropane	<0.061		0.061	0.026	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,3-Dichloropropene, Total	<0.061		0.061	0.025	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Ethylbenzene	<0.015		0.015	0.011	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
2-Hexanone	<0.30		0.30	0.095	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Methylene Chloride	<0.30		0.30	0.099	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
4-Methyl-2-pentanone (MIBK)	<0.30		0.30	0.13	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Methyl tert-butyl ether	0.057	J	0.061	0.024	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Styrene	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,1,2,2-Tetrachloroethane	<0.061		0.061	0.024	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Tetrachloroethene	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Toluene	<0.015		0.015	0.0089	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
trans-1,2-Dichloroethene	<0.061		0.061	0.021	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
trans-1,3-Dichloropropene	<0.061		0.061	0.022	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,1,1-Trichloroethane	<0.061		0.061	0.023	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
1,1,2-Trichloroethane	<0.061		0.061	0.021	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Trichloroethene	<0.030		0.030	0.010	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Vinyl acetate	<0.12		0.12	0.055	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Vinyl chloride	<0.030		0.030	0.016	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50
Xylenes, Total	<0.030		0.030	0.013	mg/Kg	☼	02/17/16 09:45	03/01/16 12:49	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		75 - 120	02/17/16 09:45	03/01/16 12:49	50
Dibromofluoromethane	88		75 - 120	02/17/16 09:45	03/01/16 12:49	50
1,2-Dichloroethane-d4 (Surr)	84		75 - 125	02/17/16 09:45	03/01/16 12:49	50
Toluene-d8 (Surr)	95		75 - 120	02/17/16 09:45	03/01/16 12:49	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.056	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B14 (0-1)

Lab Sample ID: 500-107703-9

Date Collected: 02/17/16 09:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.045	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2-Methylnaphthalene	<0.037		0.037	0.0068	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Phenanthrene	0.085		0.037	0.0052	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Anthracene	0.019 J		0.037	0.0062	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Carbazole	<0.19		0.19	0.093	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Fluoranthene	0.13		0.037	0.0069	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Pyrene	0.26		0.037	0.0074	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Benzo[a]anthracene	0.074		0.037	0.0050	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B14 (0-1)

Lab Sample ID: 500-107703-9

Date Collected: 02/17/16 09:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.097		0.037	0.010	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Benzo[b]fluoranthene	0.17		0.037	0.0080	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Benzo[k]fluoranthene	0.049		0.037	0.011	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Benzo[a]pyrene	0.087		0.037	0.0072	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Indeno[1,2,3-cd]pyrene	0.069		0.037	0.0096	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
Benzo[g,h,i]perylene	0.10		0.037	0.012	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:13	02/28/16 19:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	81		25 - 110	02/23/16 07:13	02/28/16 19:16	1
Phenol-d5	54		31 - 110	02/23/16 07:13	02/28/16 19:16	1
Nitrobenzene-d5	80		25 - 115	02/23/16 07:13	02/28/16 19:16	1
2-Fluorobiphenyl	74		25 - 119	02/23/16 07:13	02/28/16 19:16	1
2,4,6-Tribromophenol	102		35 - 137	02/23/16 07:13	02/28/16 19:16	1
Terphenyl-d14	191	X	36 - 134	02/23/16 07:13	02/28/16 19:16	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	☼	02/25/16 09:30	02/26/16 16:58	1
Arsenic	2.9		0.57	0.26	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Barium	25		0.57	0.10	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Beryllium	0.19	J	0.23	0.050	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Boron	9.0		2.9	0.40	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Cadmium	0.14		0.11	0.033	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Calcium	190000	B	110	37	mg/Kg	☼	02/25/16 09:30	02/27/16 23:09	10
Chromium	14	B	0.57	0.099	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Cobalt	3.1		0.29	0.065	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Copper	10		0.57	0.12	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Iron	6600		11	4.4	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Lead	100		0.29	0.14	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Magnesium	110000		57	23	mg/Kg	☼	02/25/16 09:30	02/27/16 23:09	10
Manganese	290	B	0.57	0.11	mg/Kg	☼	02/25/16 09:30	02/28/16 00:41	1
Nickel	7.9		0.57	0.16	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Potassium	600		29	4.7	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Selenium	<0.57		0.57	0.28	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Silver	<0.29		0.29	0.067	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Sodium	1000		57	7.6	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Vanadium	11		0.29	0.084	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1
Zinc	50		1.1	0.36	mg/Kg	☼	02/25/16 09:30	02/26/16 16:58	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.37	J	0.50	0.050	mg/L		02/23/16 16:01	02/26/16 23:38	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/23/16 16:01	02/26/16 23:38	1
Boron	0.63		0.50	0.050	mg/L		02/23/16 16:01	02/26/16 23:38	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Client Sample ID: 3011-06-B14 (0-1)

Lab Sample ID: 500-107703-9

Date Collected: 02/17/16 09:45

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/23/16 16:01	02/26/16 23:38	1
Chromium	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:38	1
Cobalt	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:38	1
Iron	<0.40		0.40	0.20	mg/L		02/23/16 16:01	02/26/16 23:38	1
Lead	0.0091		0.0075	0.0075	mg/L		02/23/16 16:01	02/26/16 23:38	1
Manganese	1.2		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:38	1
Nickel	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:38	1
Selenium	<0.050		0.050	0.020	mg/L		02/23/16 16:01	02/26/16 23:38	1
Silver	<0.025		0.025	0.010	mg/L		02/23/16 16:01	02/26/16 23:38	1
Zinc	0.95	B	0.50	0.020	mg/L		02/23/16 16:01	02/26/16 23:38	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.31		0.0075	0.0075	mg/L		02/23/16 16:10	02/27/16 21:32	1
Manganese	0.60		0.025	0.010	mg/L		02/23/16 16:10	02/27/16 21:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/23/16 16:01	02/25/16 17:39	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/23/16 16:01	02/25/16 17:39	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/23/16 16:45	02/24/16 12:23	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	J	0.017	0.0090	mg/Kg	☼	02/23/16 15:15	02/24/16 14:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.98		0.200	0.200	SU			02/23/16 11:51	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

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

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
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.

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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107703-3

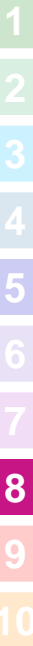
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 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 #: 500-107703

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments		
E+E		1009341-0008-01										
Project Name		Lab Project #		# of Containers		Matrix		Matrix		Comments		
IL 38		50011804.0008.01										
Project Location/State		Lab PM		Date		Time		Matrix		Comments		
Kane County IL		D. Wright										
Sampler		Sample ID		Date		Time		Matrix		Comments		
S. Cooper												
Lab ID	M/S/MSD	Sample ID	Date	Time	# of Containers	Matrix	VOC	SVOC	Total TAL Metals	TCLP/SPLP TAL metals	PH/% Solids	Comments
9		3011-06-B04 (01)	2/17/16	0945	2	S	X	X	X	X	X	
10		3011-06-B11 (01)	2/17/16	1000	2	S	X	X	X	X	X	
11		3011-06-B09 (01)	2/17/16	1005	2	S	X	X	X	X	X	
12		3011-06-B07 (01)	2/17/16	1015	2	S	X	X	X	X	X	
13		3011-06-B05 (01)	2/17/16	1025	2	S	X	X	X	X	X	
14		3011-06-B02 (01)	2/17/16	1040	2	S	X	X	X	X	X	
15		3011-06-B01 (01)	2/17/16	1305	2	S	X	X	X	X	X	
16		3011-06-B01 (01) D	2/17/16	1305	2	S	X	X	X	X	X	
17		3011-06-B03 (01)	2/17/16	1310	2	S	X	X	X	X	X	
18		3011-06-B04 (01)	2/17/16	1315	2	S	X	X	X	X	X	

- Preservative Key
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

Turnaround Time Required (Business Days)

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

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>[Signature]</u> Company: <u>E+E</u> Date: <u>2/17/16</u> Time: <u>1515</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/17/16</u> Time: <u>1515</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/17/16</u> Time: <u>1645</u>	Received By: <u>[Signature]</u> Company: <u>TA-CHI</u> Date: <u>2/18/16</u> Time: <u>0730</u>
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____

Lab Courier: [Signature]

Shipped: _____

Hand Delivered: _____

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

Client Comments:

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 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 #: 500-107703

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
EE		1009341-020801								Preservative Key 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		Lab Project #		# of Containers		Matrix		Matrix		Comments	
FL 38		50011864									
Project Location/State		Lab PM		Date		Time		Matrix		Comments	
Kane County, IL		P. Wright									
Sampler		Sample ID		Date		Time		Matrix		Comments	
S-Cooper											
19	MS/MSD	3011-06-B06 (01)	2/17/16	1745	2	S	X	X	X	X	
20	MS/MSD	3011-06-B08 (01)	2/17/16	1750	2	S	X	X	X	X	
21	MS/MSD	3011-06-B10 (01)	2/17/16	1755	2	S	X	X	X	X	
22	MS/MSD	3011-06-B12 (01)	2/17/16	1800	2	S	X	X	X	X	
23	MS/MSD	3011-06-B13 (01)	2/17/16	1805	2	S	X	X	X	X	
277-16											

Turnaround Time Required (Business Days)

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

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>[Signature]</u>	Company: <u>LC</u>	Date: <u>2-17-16</u>	Time: <u>1515</u>	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/18/16</u>	Time: <u>1515</u>
Relinquished By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1645</u>	Received By: <u>[Signature]</u>	Company: <u>TA-CERT</u>	Date: <u>2/18/16</u>	Time: <u>0930</u>
Relinquished By: _____	Company: _____	Date: _____	Time: _____	Received By: _____	Company: _____	Date: _____	Time: _____

Lab Courier: TA

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:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107703-3

Login Number: 107703

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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: 500-107704-4
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
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LINKS

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results through
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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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-4

Job ID: 500-107704-4

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107704-4

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-324220: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 500-324220 recovered outside control limits for the following analyte: Acetone.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-10-B01 (0-1) (500-107704-4), (MB 500-324045/1-A), (500-107704-E-1-A), (500-107704-E-1-B MS) and (500-107704-E-1-C MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324448 and analytical batch 500-324695 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-4

Client Sample ID: 3011-10-B01 (0-1)

Lab Sample ID: 500-107704-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0056	J	0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.030	J	0.037	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0078	J	0.037	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.072		0.037	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.10		0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.046		0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.058		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.10		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.040		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.057		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.0		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	39		0.54	0.099	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.30		0.22	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	6.9		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.057	J	0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	140000	B	110	35	mg/Kg	10	☼	6010B	Total/NA
Chromium	8.7	B	0.54	0.093	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.1		0.27	0.061	mg/Kg	1	☼	6010B	Total/NA
Copper	14	B	0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	11000	B	11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	22		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	54000	B	5.4	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	290	B	0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	12		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	650		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.53	J	0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	1400	B	54	7.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.27	0.079	mg/Kg	1	☼	6010B	Total/NA
Zinc	58		11	3.4	mg/Kg	10	☼	6010B	Total/NA
Barium	0.52		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.090	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	3.4		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.039	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.32		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.018		0.018	0.0097	mg/Kg	1	☼	7471B	Total/NA
pH	8.36		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107704-4	3011-10-B01 (0-1)	Solid	02/17/16 09:40	02/18/16 07:30

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-4

Client Sample ID: 3011-10-B01 (0-1)

Lab Sample ID: 500-107704-4

Date Collected: 02/17/16 09:40

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018	*	0.018	0.0035	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Benzene	<0.0045		0.0045	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Bromodichloromethane	<0.0045		0.0045	0.00076	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Bromoform	<0.0045		0.0045	0.00092	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Bromomethane	<0.0045	*	0.0045	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Carbon disulfide	<0.0045		0.0045	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Carbon tetrachloride	<0.0045		0.0045	0.00097	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Chloroethane	<0.0045		0.0045	0.0019	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Chloroform	<0.0045		0.0045	0.00088	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00092	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Dibromochloromethane	<0.0045		0.0045	0.00052	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
1,1-Dichloroethane	<0.0045		0.0045	0.00093	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
1,2-Dichloroethane	<0.0045		0.0045	0.00067	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
1,1-Dichloroethene	<0.0045		0.0045	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Methylene Chloride	<0.0045		0.0045	0.0034	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00093	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Styrene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
1,1,2,2-Tetrachloroethane	<0.0045		0.0045	0.00072	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Tetrachloroethene	<0.0045		0.0045	0.00094	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00087	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Vinyl acetate	<0.0045		0.0045	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1
Xylenes, Total	<0.0090		0.0090	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 122	02/18/16 08:10	02/24/16 17:26	1
Dibromofluoromethane	105		75 - 120	02/18/16 08:10	02/24/16 17:26	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 134	02/18/16 08:10	02/24/16 17:26	1
Toluene-d8 (Surr)	106		75 - 122	02/18/16 08:10	02/24/16 17:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-4

Client Sample ID: 3011-10-B01 (0-1)

Lab Sample ID: 500-107704-4

Date Collected: 02/17/16 09:40

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2,4-Dichlorophenol	<0.37		0.37	0.090	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2-Methylnaphthalene	<0.037		0.037	0.0069	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Acenaphthylene	0.0056	J	0.037	0.0050	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Phenanthrene	0.030	J	0.037	0.0053	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Anthracene	0.0078	J	0.037	0.0063	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Fluoranthene	0.072		0.037	0.0070	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Pyrene	0.10		0.037	0.0075	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Benzo[a]anthracene	0.046		0.037	0.0051	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-4

Client Sample ID: 3011-10-B01 (0-1)

Lab Sample ID: 500-107704-4

Date Collected: 02/17/16 09:40

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.058		0.037	0.010	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Benzo[b]fluoranthene	0.10		0.037	0.0081	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Benzo[k]fluoranthene	0.040		0.037	0.011	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Benzo[a]pyrene	0.057		0.037	0.0073	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0098	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:20	02/29/16 15:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	86		25 - 110	02/23/16 07:20	02/29/16 15:48	1
Phenol-d5	66		31 - 110	02/23/16 07:20	02/29/16 15:48	1
Nitrobenzene-d5	79		25 - 115	02/23/16 07:20	02/29/16 15:48	1
2-Fluorobiphenyl	81		25 - 119	02/23/16 07:20	02/29/16 15:48	1
2,4,6-Tribromophenol	59		35 - 137	02/23/16 07:20	02/29/16 15:48	1
Terphenyl-d14	145	X	36 - 134	02/23/16 07:20	02/29/16 15:48	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Arsenic	6.0		0.54	0.25	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Barium	39		0.54	0.099	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Beryllium	0.30		0.22	0.047	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Boron	6.9		2.7	0.38	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Cadmium	0.057	J	0.11	0.031	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Calcium	140000	B	110	35	mg/Kg	☼	02/25/16 15:15	02/28/16 00:46	10
Chromium	8.7	B	0.54	0.093	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Cobalt	5.1		0.27	0.061	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Copper	14	B	0.54	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Iron	11000	B	11	4.2	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Lead	22		0.27	0.13	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Magnesium	54000	B	5.4	2.2	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Manganese	290	B	0.54	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Nickel	12		0.54	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Potassium	650		27	4.4	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Selenium	0.53	J	0.54	0.27	mg/Kg	☼	02/25/16 15:15	02/29/16 14:05	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Sodium	1400	B	54	7.1	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Vanadium	14		0.27	0.079	mg/Kg	☼	02/25/16 15:15	02/26/16 21:06	1
Zinc	58		11	3.4	mg/Kg	☼	02/25/16 15:15	02/28/16 00:46	10

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.52		0.50	0.050	mg/L		02/25/16 08:27	02/26/16 19:55	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 19:55	1
Boron	0.090	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 19:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-4

Client Sample ID: 3011-10-B01 (0-1)

Lab Sample ID: 500-107704-4

Date Collected: 02/17/16 09:40

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 19:55	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:55	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:55	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 19:55	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 19:55	1
Manganese	3.4		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:55	1
Nickel	0.012	J	0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:55	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 19:55	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 19:55	1
Zinc	0.039	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 19:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.32		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 03:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 20:19	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 20:19	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:21	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018		0.018	0.0097	mg/Kg	☼	02/23/16 15:15	02/24/16 11:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.36		0.200	0.200	SU			02/23/16 13:29	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-4

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

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.
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-4

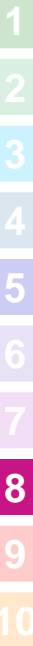
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

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

Chain of Custody Record

Lab Job #: 500-107704

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Total TAL metals		TCLP/SPLP TAL metals		PH % Solids		Preservative Key 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
EJE		1009341.0008.01												
Project Name		Lab Project #												
IL 38		50011804.0008.01												
Project Location/State		Lab PM												Comments
Kane County IL		D. Wright												
Sampler														
S. Cooper														
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Voc	SVOC	Total TAL metals	TCLP/SPLP TAL metals	PH % Solids	Comments		
			Date	Time										
4		3c11-10-Bol (6-1)	2/17/16	0846	2	S	X	X	X	X	X			
2-17-16														

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>[Signature]</u> Company: <u>EA</u> Date: <u>2/17/16</u> Time: <u>1515</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/17/16</u> Time: <u>1515</u>	Lab Courier: <u>TA</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/17/16</u> Time: <u>1645</u>	Received By: <u>[Signature]</u> Company: <u>TA-CFH</u> Date: <u>2/18/16</u> Time: <u>0730</u>	Shipped: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: _____

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

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107704-4

Login Number: 107704

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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: 500-107704-5
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 1:01:51 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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results through
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Have a Question?



Visit us at:
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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Job ID: 500-107704-5

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107704-5

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-324219: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-324220: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 500-324220 recovered outside control limits for the following analyte: Acetone.

Method(s) 8260B: Due to internal standard (ISTD) area failures, a dilution was required for the following samples: 3011-11-B02 (0-1) (500-107704-7), 3011-11-B01 (0-1) (500-107704-8) and 3011-11-B09 (0-1) (500-107704-13). The samples were initially analyzed without dilution. All internal standards were outside the QC limits. The samples were re-analyzed with similar results. No usable data was obtained from the un-diluted runs. The samples were re-analyzed at a dilution using the methanol extraction method. All internal standard areas were within limits in the diluted runs. Elevated reporting limits have been provided.

Method(s) 8260B: The laboratory control sample (LCS) for batch 324783 recovered outside control limits for the following analyte: Trichloroethene. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data has been reported.

Method(s) 8260B: The laboratory control sample (LCS) for batch 324842 recovered outside control limits for the following analyte: Vinyl Acetate. This analyte was biased high in the LCS and was not detected in the associated sample; therefore, the data has been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-11-B07 (0-1) (500-107704-5), 3011-11-B05 (0-1) (500-107704-6), 3011-11-B02 (0-1) (500-107704-7), 3011-11-B01 (0-1) (500-107704-8), 3011-11-B03 (0-1) (500-107704-9), 3011-11-B04 (0-1) (500-107704-10), 3011-11-B06 (0-1) (500-107704-11), 3011-11-B08 (0-1) (500-107704-12), 3011-11-B09 (0-1) (500-107704-13), (MB 500-324045/1-A), (500-107704-E-1-A), (500-107704-E-1-B MS) and (500-107704-E-1-C MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324448 and analytical batch 500-324695 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Job ID: 500-107704-5 (Continued)

Laboratory: TestAmerica Chicago (Continued)

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B07 (0-1)

Lab Sample ID: 500-107704-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.053		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.010	J	0.037	0.0062	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.093		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.19		0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.060		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.075		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.12		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.047		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.073		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.7		0.53	0.24	mg/Kg	1	☼	6010B	Total/NA
Barium	20		0.53	0.097	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.22		0.21	0.046	mg/Kg	1	☼	6010B	Total/NA
Boron	8.7		2.6	0.37	mg/Kg	1	☼	6010B	Total/NA
Calcium	160000	B	110	34	mg/Kg	10	☼	6010B	Total/NA
Chromium	7.3	B	0.53	0.091	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.0		0.26	0.060	mg/Kg	1	☼	6010B	Total/NA
Copper	9.7	B	0.53	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	6500	B	11	4.1	mg/Kg	1	☼	6010B	Total/NA
Lead	33		0.26	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	93000	B	53	21	mg/Kg	10	☼	6010B	Total/NA
Manganese	280	B	0.53	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.2		0.53	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	520		26	4.3	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.51	J	0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Sodium	690	B	53	7.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	9.1		0.26	0.077	mg/Kg	1	☼	6010B	Total/NA
Zinc	40		11	3.3	mg/Kg	10	☼	6010B	Total/NA
Barium	0.28	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.067	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.3		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.073	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.12		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.018		0.018	0.0093	mg/Kg	1	☼	7471B	Total/NA
pH	8.66		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-11-B05 (0-1)

Lab Sample ID: 500-107704-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.063		0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.014	J	0.039	0.0066	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.10		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.22		0.039	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.061		0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.081		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.15		0.039	0.0086	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.052		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.080		0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.046		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.6		0.59	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	46		0.59	0.11	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B05 (0-1) (Continued)

Lab Sample ID: 500-107704-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.43		0.24	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	6.4		3.0	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12		0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	98000	B	120	38	mg/Kg	10	☼	6010B	Total/NA
Chromium	11	B	0.59	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.8		0.30	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	14	B	0.59	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	10000	B	12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	49		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	54000	B	5.9	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	360	B	0.59	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	12		0.59	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	750		30	4.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.38	J	0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	1500	B	59	7.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.30	0.086	mg/Kg	1	☼	6010B	Total/NA
Zinc	46		1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.49	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.10	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.79		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.32	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.8		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.021		0.018	0.0095	mg/Kg	1	☼	7471B	Total/NA
pH	8.36		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-11-B02 (0-1)

Lab Sample ID: 500-107704-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.081		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.016	J	0.037	0.0062	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.12		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.27		0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.069		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.089		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.15		0.037	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.074		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.089		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.064		0.037	0.0096	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.092		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.2		0.56	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	12		0.56	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.20	J	0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	8.3		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.062	J	0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	190000	B	110	36	mg/Kg	10	☼	6010B	Total/NA
Chromium	8.9	B	0.56	0.096	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.5		0.28	0.063	mg/Kg	1	☼	6010B	Total/NA
Copper	8.8	B	0.56	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	6200	B	11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	52		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B02 (0-1) (Continued)

Lab Sample ID: 500-107704-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	110000	B	56	23	mg/Kg	10	☼	6010B	Total/NA
Manganese	380	B	0.56	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	6.5		0.56	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	430		28	4.6	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.30	J	0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Sodium	800	B	56	7.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	8.1		0.28	0.082	mg/Kg	1	☼	6010B	Total/NA
Zinc	53		11	3.5	mg/Kg	10	☼	6010B	Total/NA
Barium	0.16	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.077	J	0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Lead	0.0078		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	2.4		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.25	J B	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.021		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.061		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.48		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-11-B01 (0-1)

Lab Sample ID: 500-107704-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.033	J	0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0064	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.055		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.14		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.038		0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.054		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.087		0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.034	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.052		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.8		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	36		0.54	0.099	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.28		0.22	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	8.0		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.071	J	0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	210000	B	110	35	mg/Kg	10	☼	6010B	Total/NA
Chromium	7.5	B	0.54	0.093	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.6		0.27	0.061	mg/Kg	1	☼	6010B	Total/NA
Copper	9.2	B	0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	7000	B	11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	19		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	120000	B	54	22	mg/Kg	10	☼	6010B	Total/NA
Manganese	320	B	0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	8.2		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	600		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.50	J	0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	1500	B	54	7.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	11		0.27	0.079	mg/Kg	1	☼	6010B	Total/NA
Zinc	42		11	3.4	mg/Kg	10	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B01 (0-1) (Continued)

Lab Sample ID: 500-107704-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.51		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J	0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	3.4		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.13	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.25		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.011	J	0.018	0.0096	mg/Kg	1	☼	7471B	Total/NA
pH	8.22		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-11-B03 (0-1)

Lab Sample ID: 500-107704-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.043		0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0087	J	0.035	0.0059	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.075		0.035	0.0065	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.20		0.035	0.0070	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.053		0.035	0.0047	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.066		0.035	0.0096	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.13		0.035	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.051		0.035	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.088		0.035	0.0068	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.072		0.035	0.0091	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.11		0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.7		0.52	0.24	mg/Kg	1	☼	6010B	Total/NA
Barium	31		0.52	0.096	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.23		0.21	0.045	mg/Kg	1	☼	6010B	Total/NA
Boron	6.7		2.6	0.37	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.30		0.10	0.030	mg/Kg	1	☼	6010B	Total/NA
Calcium	180000	B	100	34	mg/Kg	10	☼	6010B	Total/NA
Chromium	6.6	B	0.52	0.090	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.4		0.26	0.059	mg/Kg	1	☼	6010B	Total/NA
Copper	7.4	B	0.52	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	7100	B	10	4.0	mg/Kg	1	☼	6010B	Total/NA
Lead	11		0.26	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	100000	B	52	21	mg/Kg	10	☼	6010B	Total/NA
Manganese	320	B	0.52	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	8.1		0.52	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	520		26	4.3	mg/Kg	1	☼	6010B	Total/NA
Sodium	1100	B	52	6.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	11		0.26	0.077	mg/Kg	1	☼	6010B	Total/NA
Zinc	39		10	3.3	mg/Kg	10	☼	6010B	Total/NA
Barium	0.41	J	0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	3.1		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.016	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.12	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.23		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.014	J	0.016	0.0084	mg/Kg	1	☼	7471B	Total/NA
pH	8.22		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B04 (0-1)

Lab Sample ID: 500-107704-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Phenanthrene	0.025	J	0.035	0.0049	mg/Kg	1		☼	8270D	Total/NA
Fluoranthene	0.046		0.035	0.0065	mg/Kg	1		☼	8270D	Total/NA
Pyrene	0.12		0.035	0.0069	mg/Kg	1		☼	8270D	Total/NA
Benzo[a]anthracene	0.034	J	0.035	0.0047	mg/Kg	1		☼	8270D	Total/NA
Chrysene	0.047		0.035	0.0095	mg/Kg	1		☼	8270D	Total/NA
Benzo[b]fluoranthene	0.084		0.035	0.0075	mg/Kg	1		☼	8270D	Total/NA
Benzo[k]fluoranthene	0.034	J	0.035	0.010	mg/Kg	1		☼	8270D	Total/NA
Benzo[a]pyrene	0.049		0.035	0.0068	mg/Kg	1		☼	8270D	Total/NA
Arsenic	2.4		0.55	0.25	mg/Kg	1		☼	6010B	Total/NA
Barium	21		0.55	0.10	mg/Kg	1		☼	6010B	Total/NA
Beryllium	0.23		0.22	0.048	mg/Kg	1		☼	6010B	Total/NA
Boron	8.8		2.7	0.38	mg/Kg	1		☼	6010B	Total/NA
Cadmium	0.060	J	0.11	0.032	mg/Kg	1		☼	6010B	Total/NA
Calcium	210000	B	110	35	mg/Kg	10		☼	6010B	Total/NA
Chromium	5.9	B	0.55	0.095	mg/Kg	1		☼	6010B	Total/NA
Cobalt	3.1		0.27	0.062	mg/Kg	1		☼	6010B	Total/NA
Copper	8.4	B	0.55	0.12	mg/Kg	1		☼	6010B	Total/NA
Iron	6500	B	11	4.2	mg/Kg	1		☼	6010B	Total/NA
Lead	16		0.27	0.14	mg/Kg	1		☼	6010B	Total/NA
Magnesium	120000	B	55	22	mg/Kg	10		☼	6010B	Total/NA
Manganese	320	B	0.55	0.11	mg/Kg	1		☼	6010B	Total/NA
Nickel	7.2		0.55	0.15	mg/Kg	1		☼	6010B	Total/NA
Potassium	460		27	4.5	mg/Kg	1		☼	6010B	Total/NA
Selenium	0.37	J	0.55	0.27	mg/Kg	1		☼	6010B	Total/NA
Sodium	1100	B	55	7.3	mg/Kg	1		☼	6010B	Total/NA
Vanadium	8.7		0.27	0.080	mg/Kg	1		☼	6010B	Total/NA
Zinc	41		11	3.5	mg/Kg	10		☼	6010B	Total/NA
Barium	0.36	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.063	J	0.50	0.050	mg/L	1			6010B	TCLP
Manganese	1.8		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.017	J	0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.14	J B	0.50	0.020	mg/L	1			6010B	TCLP
Manganese	0.26		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.011	J	0.018	0.0095	mg/Kg	1		☼	7471B	Total/NA
pH	8.70		0.200	0.200	SU	1			9045D	Total/NA

Client Sample ID: 3011-11-B06 (0-1)

Lab Sample ID: 500-107704-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	0.046		0.017	0.0033	mg/Kg	1		☼	8260B	Total/NA
2-Butanone (MEK)	0.0076		0.0042	0.0015	mg/Kg	1		☼	8260B	Total/NA
Naphthalene	0.0087	J	0.036	0.0056	mg/Kg	1		☼	8270D	Total/NA
Acenaphthene	0.011	J	0.036	0.0066	mg/Kg	1		☼	8270D	Total/NA
Fluorene	0.011	J	0.036	0.0052	mg/Kg	1		☼	8270D	Total/NA
Phenanthrene	0.17		0.036	0.0051	mg/Kg	1		☼	8270D	Total/NA
Anthracene	0.034	J	0.036	0.0061	mg/Kg	1		☼	8270D	Total/NA
Fluoranthene	0.25		0.036	0.0068	mg/Kg	1		☼	8270D	Total/NA
Pyrene	0.63		0.036	0.0073	mg/Kg	1		☼	8270D	Total/NA
Benzo[a]anthracene	0.17		0.036	0.0049	mg/Kg	1		☼	8270D	Total/NA
Chrysene	0.22		0.036	0.010	mg/Kg	1		☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B06 (0-1) (Continued)

Lab Sample ID: 500-107704-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.36		0.036	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.12		0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.17		0.036	0.0071	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.15		0.036	0.0095	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.19		0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.2		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	23		0.54	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.32		0.22	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	9.7		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.084	J	0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	150000	B	110	35	mg/Kg	10	☼	6010B	Total/NA
Chromium	12	B	0.54	0.094	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.5		0.27	0.062	mg/Kg	1	☼	6010B	Total/NA
Copper	13	B	0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	9600	B	11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	47		0.27	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	87000	B	54	22	mg/Kg	10	☼	6010B	Total/NA
Manganese	430	B	0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	11		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	940		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Sodium	1300	B	54	7.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.27	0.079	mg/Kg	1	☼	6010B	Total/NA
Zinc	62		11	3.4	mg/Kg	10	☼	6010B	Total/NA
Barium	0.23	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.062	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.96		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.084	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.12		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.020		0.018	0.0093	mg/Kg	1	☼	7471B	Total/NA
pH	8.53		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-11-B08 (0-1)

Lab Sample ID: 500-107704-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	0.0059	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.10		0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.019	J	0.039	0.0065	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.15		0.039	0.0072	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.40		0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.11		0.039	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.14		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.19		0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.089		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.13		0.039	0.0075	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.11		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.15		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.2		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	31		0.54	0.098	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.22		0.22	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	13		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B08 (0-1) (Continued)

Lab Sample ID: 500-107704-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.050	J	0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	210000	B	110	35	mg/Kg	10	☼	6010B	Total/NA
Chromium	7.5	B	0.54	0.093	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.9		0.27	0.061	mg/Kg	1	☼	6010B	Total/NA
Copper	9.5	B	0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	11000	B	11	4.1	mg/Kg	1	☼	6010B	Total/NA
Lead	22		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	130000	B	54	22	mg/Kg	10	☼	6010B	Total/NA
Manganese	360	B	0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.9		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	510		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.53	J	0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	1100	B	54	7.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	9.8		0.27	0.079	mg/Kg	1	☼	6010B	Total/NA
Zinc	34		11	3.4	mg/Kg	10	☼	6010B	Total/NA
Barium	0.40	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.072	J	0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	3.2		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.095	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.11		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.012	J	0.020	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.24		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-11-B09 (0-1)

Lab Sample ID: 500-107704-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.093		0.050	0.020	mg/Kg	50	☼	8260B	Total/NA
Phenanthrene	0.026	J	0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.050		0.036	0.0068	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.14		0.036	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.040		0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.051		0.036	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.081		0.036	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.037		0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.052		0.036	0.0071	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.046		0.036	0.0095	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.2		0.52	0.24	mg/Kg	1	☼	6010B	Total/NA
Barium	24		0.52	0.096	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.16	J	0.21	0.045	mg/Kg	1	☼	6010B	Total/NA
Boron	10		2.6	0.37	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.054	J	0.10	0.030	mg/Kg	1	☼	6010B	Total/NA
Calcium	190000	B	100	34	mg/Kg	10	☼	6010B	Total/NA
Chromium	8.1	B	0.52	0.090	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.5		0.26	0.059	mg/Kg	1	☼	6010B	Total/NA
Copper	8.3	B	0.52	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	5800	B	10	4.0	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.26	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	110000	B	52	21	mg/Kg	10	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B09 (0-1) (Continued)

Lab Sample ID: 500-107704-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	290	B	0.52	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.8		0.52	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	530		26	4.3	mg/Kg	1	☼	6010B	Total/NA
Sodium	820	B	52	6.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	9.0		0.26	0.077	mg/Kg	1	☼	6010B	Total/NA
Zinc	26		1.0	0.33	mg/Kg	1	☼	6010B	Total/NA
Barium	0.39	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.065	J	0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.1		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.071	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.11		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.77		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107704-5	3011-11-B07 (0-1)	Solid	02/17/16 09:00	02/18/16 07:30
500-107704-6	3011-11-B05 (0-1)	Solid	02/17/16 09:25	02/18/16 07:30
500-107704-7	3011-11-B02 (0-1)	Solid	02/17/16 09:35	02/18/16 07:30
500-107704-8	3011-11-B01 (0-1)	Solid	02/17/16 14:15	02/18/16 07:30
500-107704-9	3011-11-B03 (0-1)	Solid	02/17/16 14:20	02/18/16 07:30
500-107704-10	3011-11-B04 (0-1)	Solid	02/17/16 14:30	02/18/16 07:30
500-107704-11	3011-11-B06 (0-1)	Solid	02/17/16 14:50	02/18/16 07:30
500-107704-12	3011-11-B08 (0-1)	Solid	02/17/16 14:55	02/18/16 07:30
500-107704-13	3011-11-B09 (0-1)	Solid	02/17/16 15:00	02/18/16 07:30

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B07 (0-1)

Lab Sample ID: 500-107704-5

Date Collected: 02/17/16 09:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020	*	0.020	0.0039	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Benzene	<0.0051		0.0051	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Bromodichloromethane	<0.0051		0.0051	0.00086	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Bromoform	<0.0051		0.0051	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Bromomethane	<0.0051	*	0.0051	0.0019	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
2-Butanone (MEK)	<0.0051		0.0051	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Carbon disulfide	<0.0051		0.0051	0.0019	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Carbon tetrachloride	<0.0051		0.0051	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Chlorobenzene	<0.0051		0.0051	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Chloroethane	<0.0051		0.0051	0.0021	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Chloroform	<0.0051		0.0051	0.00099	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Chloromethane	<0.0051		0.0051	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
cis-1,2-Dichloroethene	<0.0051		0.0051	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
cis-1,3-Dichloropropene	<0.0051		0.0051	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Dibromochloromethane	<0.0051		0.0051	0.00058	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
1,1-Dichloroethane	<0.0051		0.0051	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
1,2-Dichloroethane	<0.0051		0.0051	0.00075	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
1,1-Dichloroethene	<0.0051		0.0051	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
1,2-Dichloropropane	<0.0051		0.0051	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
1,3-Dichloropropene, Total	<0.0051		0.0051	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Ethylbenzene	<0.0051		0.0051	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
2-Hexanone	<0.0051		0.0051	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Methylene Chloride	<0.0051		0.0051	0.0038	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
4-Methyl-2-pentanone (MIBK)	<0.0051		0.0051	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Methyl tert-butyl ether	<0.0051		0.0051	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Styrene	<0.0051		0.0051	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
1,1,2,2-Tetrachloroethane	<0.0051		0.0051	0.00081	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Tetrachloroethene	<0.0051		0.0051	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Toluene	<0.0051		0.0051	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
trans-1,2-Dichloroethene	<0.0051		0.0051	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
trans-1,3-Dichloropropene	<0.0051		0.0051	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
1,1,1-Trichloroethane	<0.0051		0.0051	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
1,1,2-Trichloroethane	<0.0051		0.0051	0.00098	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Trichloroethene	<0.0051		0.0051	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Vinyl acetate	<0.0051		0.0051	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Vinyl chloride	<0.0051		0.0051	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1
Xylenes, Total	<0.010		0.010	0.0019	mg/Kg	☼	02/18/16 08:10	02/24/16 17:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 122	02/18/16 08:10	02/24/16 17:52	1
Dibromofluoromethane	106		75 - 120	02/18/16 08:10	02/24/16 17:52	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	02/18/16 08:10	02/24/16 17:52	1
Toluene-d8 (Surr)	108		75 - 122	02/18/16 08:10	02/24/16 17:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.083	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B07 (0-1)

Lab Sample ID: 500-107704-5

Date Collected: 02/17/16 09:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
4-Chloroaniline	<0.75		0.75	0.18	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Hexachlorocyclopentadiene	<0.75		0.75	0.22	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
2-Methylnaphthalene	<0.037		0.037	0.0069	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
2,4-Dinitrophenol	<0.75		0.75	0.66	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
4-Nitrophenol	<0.75		0.75	0.36	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Hexachlorobenzene	<0.075		0.075	0.0087	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Phenanthrene	0.053		0.037	0.0052	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Anthracene	0.010 J		0.037	0.0062	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Carbazole	<0.19		0.19	0.093	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Fluoranthene	0.093		0.037	0.0069	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Pyrene	0.19		0.037	0.0074	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Benzo[a]anthracene	0.060		0.037	0.0050	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B07 (0-1)

Lab Sample ID: 500-107704-5

Date Collected: 02/17/16 09:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.075		0.037	0.010	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Benzo[b]fluoranthene	0.12		0.037	0.0081	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Benzo[k]fluoranthene	0.047		0.037	0.011	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Benzo[a]pyrene	0.073		0.037	0.0072	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0097	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:20	02/29/16 16:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	85		25 - 110	02/23/16 07:20	02/29/16 16:13	1
Phenol-d5	76		31 - 110	02/23/16 07:20	02/29/16 16:13	1
Nitrobenzene-d5	79		25 - 115	02/23/16 07:20	02/29/16 16:13	1
2-Fluorobiphenyl	81		25 - 119	02/23/16 07:20	02/29/16 16:13	1
2,4,6-Tribromophenol	69		35 - 137	02/23/16 07:20	02/29/16 16:13	1
Terphenyl-d14	167	X	36 - 134	02/23/16 07:20	02/29/16 16:13	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	02/25/16 15:15	02/26/16 21:11	1
Arsenic	2.7		0.53	0.24	mg/Kg	☼	02/25/16 15:15	02/26/16 21:11	1
Barium	20		0.53	0.097	mg/Kg	☼	02/25/16 15:15	02/26/16 21:11	1
Beryllium	0.22		0.21	0.046	mg/Kg	☼	02/25/16 15:15	02/26/16 21:11	1
Boron	8.7		2.6	0.37	mg/Kg	☼	02/25/16 15:15	02/26/16 21:11	1
Cadmium	<0.11		0.11	0.031	mg/Kg	☼	02/25/16 15:15	02/26/16 21:11	1
Calcium	160000	B	110	34	mg/Kg	☼	02/25/16 15:15	02/28/16 00:50	10
Chromium	7.3	B	0.53	0.091	mg/Kg	☼	02/25/16 15:15	02/26/16 21:11	1
Cobalt	3.0		0.26	0.060	mg/Kg	☼	02/25/16 15:15	02/26/16 21:11	1
Copper	9.7	B	0.53	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 21:11	1
Iron	6500	B	11	4.1	mg/Kg	☼	02/25/16 15:15	02/26/16 21:11	1
Lead	33		0.26	0.13	mg/Kg	☼	02/25/16 15:15	02/26/16 21:11	1
Magnesium	93000	B	53	21	mg/Kg	☼	02/25/16 15:15	02/28/16 00:50	10
Manganese	280	B	0.53	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 21:11	1
Nickel	7.2		0.53	0.14	mg/Kg	☼	02/25/16 15:15	02/26/16 21:11	1
Potassium	520		26	4.3	mg/Kg	☼	02/25/16 15:15	02/26/16 21:11	1
Selenium	0.51	J	0.53	0.26	mg/Kg	☼	02/25/16 15:15	02/29/16 14:10	1
Silver	<0.26		0.26	0.062	mg/Kg	☼	02/25/16 15:15	02/26/16 21:11	1
Sodium	690	B	53	7.0	mg/Kg	☼	02/25/16 15:15	02/26/16 21:11	1
Thallium	<0.53		0.53	0.26	mg/Kg	☼	02/25/16 15:15	02/26/16 21:11	1
Vanadium	9.1		0.26	0.077	mg/Kg	☼	02/25/16 15:15	02/26/16 21:11	1
Zinc	40		11	3.3	mg/Kg	☼	02/25/16 15:15	02/28/16 00:50	10

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.28	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 20:02	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 20:02	1
Boron	0.067	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 20:02	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B07 (0-1)

Lab Sample ID: 500-107704-5

Date Collected: 02/17/16 09:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 20:02	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:02	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:02	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 20:02	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 20:02	1
Manganese	1.3		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:02	1
Nickel	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:02	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 20:02	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:02	1
Zinc	0.073	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 20:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.12		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 03:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 20:23	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 20:23	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:27	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018		0.018	0.0093	mg/Kg	☼	02/23/16 15:15	02/24/16 11:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.66		0.200	0.200	SU			02/23/16 13:34	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B05 (0-1)

Lab Sample ID: 500-107704-6

Date Collected: 02/17/16 09:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 83.2

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	☼	02/18/16 08:10	02/24/16 18:17	1
Benzene	<0.0052		0.0052	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Bromodichloromethane	<0.0052		0.0052	0.00087	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Bromoform	<0.0052		0.0052	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Bromomethane	<0.0052	*	0.0052	0.0019	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
2-Butanone (MEK)	<0.0052		0.0052	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Carbon disulfide	<0.0052		0.0052	0.0019	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Carbon tetrachloride	<0.0052		0.0052	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Chlorobenzene	<0.0052		0.0052	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Chloroethane	<0.0052		0.0052	0.0022	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Chloroform	<0.0052		0.0052	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Chloromethane	<0.0052		0.0052	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
cis-1,2-Dichloroethene	<0.0052		0.0052	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
cis-1,3-Dichloropropene	<0.0052		0.0052	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Dibromochloromethane	<0.0052		0.0052	0.00059	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
1,1-Dichloroethane	<0.0052		0.0052	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
1,2-Dichloroethane	<0.0052		0.0052	0.00076	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
1,1-Dichloroethene	<0.0052		0.0052	0.0019	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
1,2-Dichloropropane	<0.0052		0.0052	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
1,3-Dichloropropene, Total	<0.0052		0.0052	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Ethylbenzene	<0.0052		0.0052	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
2-Hexanone	<0.0052		0.0052	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Methylene Chloride	<0.0052		0.0052	0.0039	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
4-Methyl-2-pentanone (MIBK)	<0.0052		0.0052	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Methyl tert-butyl ether	<0.0052		0.0052	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Styrene	<0.0052		0.0052	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
1,1,2,2-Tetrachloroethane	<0.0052		0.0052	0.00082	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Tetrachloroethene	<0.0052		0.0052	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Toluene	<0.0052		0.0052	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
trans-1,2-Dichloroethene	<0.0052		0.0052	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
trans-1,3-Dichloropropene	<0.0052		0.0052	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
1,1,1-Trichloroethane	<0.0052		0.0052	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
1,1,2-Trichloroethane	<0.0052		0.0052	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Trichloroethene	<0.0052		0.0052	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Vinyl acetate	<0.0052		0.0052	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Vinyl chloride	<0.0052		0.0052	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1
Xylenes, Total	<0.010		0.010	0.0019	mg/Kg	☼	02/18/16 08:10	02/24/16 18:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 122	02/18/16 08:10	02/24/16 18:17	1
Dibromofluoromethane	108		75 - 120	02/18/16 08:10	02/24/16 18:17	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 134	02/18/16 08:10	02/24/16 18:17	1
Toluene-d8 (Surr)	109		75 - 122	02/18/16 08:10	02/24/16 18:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B05 (0-1)

Lab Sample ID: 500-107704-6

Date Collected: 02/17/16 09:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 83.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
2-Methylnaphthalene	<0.039		0.039	0.0073	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
2-Nitrophenol	<0.39		0.39	0.094	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Phenanthrene	0.063		0.039	0.0055	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Anthracene	0.014 J		0.039	0.0066	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Fluoranthene	0.10		0.039	0.0073	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Pyrene	0.22		0.039	0.0079	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Benzo[a]anthracene	0.061		0.039	0.0053	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B05 (0-1)

Lab Sample ID: 500-107704-6

Date Collected: 02/17/16 09:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 83.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.081		0.039	0.011	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Benzo[b]fluoranthene	0.15		0.039	0.0086	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Benzo[k]fluoranthene	0.052		0.039	0.012	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Benzo[a]pyrene	0.080		0.039	0.0077	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Indeno[1,2,3-cd]pyrene	0.046		0.039	0.010	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0077	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	02/23/16 07:20	02/28/16 20:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	89		25 - 110	02/23/16 07:20	02/28/16 20:51	1
Phenol-d5	78		31 - 110	02/23/16 07:20	02/28/16 20:51	1
Nitrobenzene-d5	80		25 - 115	02/23/16 07:20	02/28/16 20:51	1
2-Fluorobiphenyl	85		25 - 119	02/23/16 07:20	02/28/16 20:51	1
2,4,6-Tribromophenol	83		35 - 137	02/23/16 07:20	02/28/16 20:51	1
Terphenyl-d14	205	X	36 - 134	02/23/16 07:20	02/28/16 20:51	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	☼	02/25/16 15:15	02/26/16 21:16	1
Arsenic	4.6		0.59	0.27	mg/Kg	☼	02/25/16 15:15	02/26/16 21:16	1
Barium	46		0.59	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 21:16	1
Beryllium	0.43		0.24	0.051	mg/Kg	☼	02/25/16 15:15	02/26/16 21:16	1
Boron	6.4		3.0	0.41	mg/Kg	☼	02/25/16 15:15	02/26/16 21:16	1
Cadmium	0.12		0.12	0.034	mg/Kg	☼	02/25/16 15:15	02/26/16 21:16	1
Calcium	98000	B	120	38	mg/Kg	☼	02/25/16 15:15	02/28/16 00:54	10
Chromium	11	B	0.59	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 21:16	1
Cobalt	5.8		0.30	0.067	mg/Kg	☼	02/25/16 15:15	02/26/16 21:16	1
Copper	14	B	0.59	0.13	mg/Kg	☼	02/25/16 15:15	02/26/16 21:16	1
Iron	10000	B	12	4.6	mg/Kg	☼	02/25/16 15:15	02/26/16 21:16	1
Lead	49		0.30	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 21:16	1
Magnesium	54000	B	5.9	2.4	mg/Kg	☼	02/25/16 15:15	02/26/16 21:16	1
Manganese	360	B	0.59	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 21:16	1
Nickel	12		0.59	0.16	mg/Kg	☼	02/25/16 15:15	02/26/16 21:16	1
Potassium	750		30	4.8	mg/Kg	☼	02/25/16 15:15	02/26/16 21:16	1
Selenium	0.38	J	0.59	0.29	mg/Kg	☼	02/25/16 15:15	02/28/16 00:41	1
Silver	<0.30		0.30	0.069	mg/Kg	☼	02/25/16 15:15	02/26/16 21:16	1
Sodium	1500	B	59	7.8	mg/Kg	☼	02/25/16 15:15	02/26/16 21:16	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	02/25/16 15:15	02/26/16 21:16	1
Vanadium	17		0.30	0.086	mg/Kg	☼	02/25/16 15:15	02/26/16 21:16	1
Zinc	46		1.2	0.37	mg/Kg	☼	02/25/16 15:15	02/28/16 00:41	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.49	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 20:08	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 20:08	1
Boron	0.10	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 20:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B05 (0-1)

Lab Sample ID: 500-107704-6

Date Collected: 02/17/16 09:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 83.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 20:08	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:08	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:08	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 20:08	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 20:08	1
Manganese	0.79		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:08	1
Nickel	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:08	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 20:08	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:08	1
Zinc	0.32	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 20:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.8		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 04:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 20:27	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 20:27	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:29	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.021		0.018	0.0095	mg/Kg	☼	02/23/16 15:15	02/24/16 11:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.36		0.200	0.200	SU			02/23/16 13:40	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B02 (0-1)

Lab Sample ID: 500-107704-7

Date Collected: 02/17/16 09:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.31		0.31	0.11	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Benzene	<0.015		0.015	0.0090	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Bromodichloromethane	<0.062		0.062	0.023	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Bromoform	<0.062		0.062	0.030	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Bromomethane	<0.12		0.12	0.049	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
2-Butanone (MEK)	<0.31		0.31	0.13	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Carbon disulfide	<0.12		0.12	0.049	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Carbon tetrachloride	<0.062		0.062	0.024	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Chlorobenzene	<0.062		0.062	0.024	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Chloroethane	<0.062		0.062	0.031	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Chloroform	<0.062		0.062	0.023	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Chloromethane	<0.062		0.062	0.020	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
cis-1,2-Dichloroethene	<0.062		0.062	0.025	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
cis-1,3-Dichloropropene	<0.062		0.062	0.026	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Dibromochloromethane	<0.062		0.062	0.030	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
1,1-Dichloroethane	<0.062		0.062	0.025	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
1,2-Dichloroethane	<0.062		0.062	0.024	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
1,1-Dichloroethene	<0.062		0.062	0.024	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
1,2-Dichloropropane	<0.062		0.062	0.026	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
1,3-Dichloropropene, Total	<0.062		0.062	0.026	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Ethylbenzene	<0.015		0.015	0.011	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
2-Hexanone	<0.31		0.31	0.096	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Methylene Chloride	<0.31		0.31	0.10	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
4-Methyl-2-pentanone (MIBK)	<0.31		0.31	0.13	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Methyl tert-butyl ether	<0.062		0.062	0.024	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Styrene	<0.062		0.062	0.024	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
1,1,2,2-Tetrachloroethane	<0.062		0.062	0.025	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Tetrachloroethene	<0.062		0.062	0.023	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Toluene	<0.015		0.015	0.0091	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
trans-1,2-Dichloroethene	<0.062		0.062	0.022	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
trans-1,3-Dichloropropene	<0.062		0.062	0.022	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
1,1,1-Trichloroethane	<0.062		0.062	0.023	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
1,1,2-Trichloroethane	<0.062		0.062	0.022	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Trichloroethene	<0.031	*	0.031	0.010	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Vinyl acetate	<0.12		0.12	0.056	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Vinyl chloride	<0.031		0.031	0.016	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50
Xylenes, Total	<0.031		0.031	0.014	mg/Kg	☼	02/17/16 09:35	02/29/16 12:36	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		75 - 120	02/17/16 09:35	02/29/16 12:36	50
Dibromofluoromethane	99		75 - 120	02/17/16 09:35	02/29/16 12:36	50
1,2-Dichloroethane-d4 (Surr)	97		75 - 125	02/17/16 09:35	02/29/16 12:36	50
Toluene-d8 (Surr)	96		75 - 120	02/17/16 09:35	02/29/16 12:36	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.055	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B02 (0-1)

Lab Sample ID: 500-107704-7

Date Collected: 02/17/16 09:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
2-Methylnaphthalene	<0.037		0.037	0.0068	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Pentachlorophenol	<0.75		0.75	0.59	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Phenanthrene	0.081		0.037	0.0052	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Anthracene	0.016 J		0.037	0.0062	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Carbazole	<0.19		0.19	0.092	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Fluoranthene	0.12		0.037	0.0069	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Pyrene	0.27		0.037	0.0074	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Benzo[a]anthracene	0.069		0.037	0.0050	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B02 (0-1)

Lab Sample ID: 500-107704-7

Date Collected: 02/17/16 09:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.089		0.037	0.010	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Benzo[b]fluoranthene	0.15		0.037	0.0080	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Benzo[k]fluoranthene	0.074		0.037	0.011	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Benzo[a]pyrene	0.089		0.037	0.0072	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Indeno[1,2,3-cd]pyrene	0.064		0.037	0.0096	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
Benzo[g,h,i]perylene	0.092		0.037	0.012	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:20	02/28/16 21:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	88		25 - 110	02/23/16 07:20	02/28/16 21:15	1
Phenol-d5	77		31 - 110	02/23/16 07:20	02/28/16 21:15	1
Nitrobenzene-d5	78		25 - 115	02/23/16 07:20	02/28/16 21:15	1
2-Fluorobiphenyl	84		25 - 119	02/23/16 07:20	02/28/16 21:15	1
2,4,6-Tribromophenol	78		35 - 137	02/23/16 07:20	02/28/16 21:15	1
Terphenyl-d14	210	X	36 - 134	02/23/16 07:20	02/28/16 21:15	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	☼	02/25/16 15:15	02/26/16 21:21	1
Arsenic	2.2		0.56	0.26	mg/Kg	☼	02/25/16 15:15	02/26/16 21:21	1
Barium	12		0.56	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 21:21	1
Beryllium	0.20	J	0.22	0.048	mg/Kg	☼	02/25/16 15:15	02/26/16 21:21	1
Boron	8.3		2.8	0.39	mg/Kg	☼	02/25/16 15:15	02/26/16 21:21	1
Cadmium	0.062	J	0.11	0.032	mg/Kg	☼	02/25/16 15:15	02/26/16 21:21	1
Calcium	190000	B	110	36	mg/Kg	☼	02/25/16 15:15	02/28/16 00:58	10
Chromium	8.9	B	0.56	0.096	mg/Kg	☼	02/25/16 15:15	02/26/16 21:21	1
Cobalt	2.5		0.28	0.063	mg/Kg	☼	02/25/16 15:15	02/26/16 21:21	1
Copper	8.8	B	0.56	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 21:21	1
Iron	6200	B	11	4.3	mg/Kg	☼	02/25/16 15:15	02/26/16 21:21	1
Lead	52		0.28	0.14	mg/Kg	☼	02/25/16 15:15	02/26/16 21:21	1
Magnesium	110000	B	56	23	mg/Kg	☼	02/25/16 15:15	02/28/16 00:58	10
Manganese	380	B	0.56	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 21:21	1
Nickel	6.5		0.56	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 21:21	1
Potassium	430		28	4.6	mg/Kg	☼	02/25/16 15:15	02/26/16 21:21	1
Selenium	0.30	J	0.56	0.28	mg/Kg	☼	02/25/16 15:15	02/29/16 14:16	1
Silver	<0.28		0.28	0.065	mg/Kg	☼	02/25/16 15:15	02/26/16 21:21	1
Sodium	800	B	56	7.4	mg/Kg	☼	02/25/16 15:15	02/26/16 21:21	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	02/25/16 15:15	02/26/16 21:21	1
Vanadium	8.1		0.28	0.082	mg/Kg	☼	02/25/16 15:15	02/26/16 21:21	1
Zinc	53		11	3.5	mg/Kg	☼	02/25/16 15:15	02/28/16 00:58	10

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.16	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 20:15	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 20:15	1
Boron	0.077	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 20:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B02 (0-1)

Lab Sample ID: 500-107704-7

Date Collected: 02/17/16 09:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 20:15	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:15	1
Cobalt	0.011	J	0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:15	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 20:15	1
Lead	0.0078		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 20:15	1
Manganese	2.4		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:15	1
Nickel	0.012	J	0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:15	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 20:15	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:15	1
Zinc	0.25	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 20:15	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.021		0.0075	0.0075	mg/L		02/25/16 08:29	02/28/16 04:17	1
Manganese	0.061		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 04:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 20:31	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 20:31	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:31	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0087	mg/Kg	☼	02/23/16 15:15	02/24/16 11:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.48		0.200	0.200	SU			02/23/16 13:45	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B01 (0-1)

Lab Sample ID: 500-107704-8

Date Collected: 02/17/16 14:15

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.27		0.27	0.094	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Benzene	<0.014		0.014	0.0080	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Bromodichloromethane	<0.054		0.054	0.020	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Bromoform	<0.054		0.054	0.026	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Bromomethane	<0.11		0.11	0.043	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
2-Butanone (MEK)	<0.27		0.27	0.12	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Carbon disulfide	<0.11		0.11	0.044	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Carbon tetrachloride	<0.054		0.054	0.021	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Chlorobenzene	<0.054		0.054	0.021	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Chloroethane	<0.054		0.054	0.027	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Chloroform	<0.054		0.054	0.020	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Chloromethane	<0.054		0.054	0.017	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
cis-1,2-Dichloroethene	<0.054		0.054	0.022	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
cis-1,3-Dichloropropene	<0.054		0.054	0.023	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Dibromochloromethane	<0.054		0.054	0.027	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
1,1-Dichloroethane	<0.054		0.054	0.022	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
1,2-Dichloroethane	<0.054		0.054	0.021	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
1,1-Dichloroethene	<0.054		0.054	0.021	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
1,2-Dichloropropane	<0.054		0.054	0.023	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
1,3-Dichloropropane, Total	<0.054		0.054	0.023	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Ethylbenzene	<0.014		0.014	0.010	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
2-Hexanone	<0.27		0.27	0.085	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Methylene Chloride	<0.27		0.27	0.089	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
4-Methyl-2-pentanone (MIBK)	<0.27		0.27	0.12	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Methyl tert-butyl ether	<0.054		0.054	0.021	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Styrene	<0.054		0.054	0.021	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
1,1,2,2-Tetrachloroethane	<0.054		0.054	0.022	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Tetrachloroethene	<0.054		0.054	0.020	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Toluene	<0.014		0.014	0.0080	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
trans-1,2-Dichloroethene	<0.054		0.054	0.019	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
trans-1,3-Dichloropropene	<0.054		0.054	0.020	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
1,1,1-Trichloroethane	<0.054		0.054	0.021	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
1,1,2-Trichloroethane	<0.054		0.054	0.019	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Trichloroethene	<0.027 *		0.027	0.0089	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Vinyl acetate	<0.11		0.11	0.049	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Vinyl chloride	<0.027		0.027	0.014	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50
Xylenes, Total	<0.027		0.027	0.012	mg/Kg	☼	02/17/16 14:15	02/29/16 13:03	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		75 - 120	02/17/16 14:15	02/29/16 13:03	50
Dibromofluoromethane	99		75 - 120	02/17/16 14:15	02/29/16 13:03	50
1,2-Dichloroethane-d4 (Surr)	93		75 - 125	02/17/16 14:15	02/29/16 13:03	50
Toluene-d8 (Surr)	95		75 - 120	02/17/16 14:15	02/29/16 13:03	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B01 (0-1)

Lab Sample ID: 500-107704-8

Date Collected: 02/17/16 14:15

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
2-Methylnaphthalene	<0.038		0.038	0.0071	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Phenanthrene	0.033	J	0.038	0.0054	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Anthracene	0.0064	J	0.038	0.0064	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Fluoranthene	0.055		0.038	0.0071	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Pyrene	0.14		0.038	0.0076	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Benzo[a]anthracene	0.038		0.038	0.0052	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B01 (0-1)

Lab Sample ID: 500-107704-8

Date Collected: 02/17/16 14:15

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.054		0.038	0.010	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Benzo[b]fluoranthene	0.087		0.038	0.0083	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Benzo[k]fluoranthene	0.034	J	0.038	0.011	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Benzo[a]pyrene	0.052		0.038	0.0074	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	02/23/16 07:20	02/28/16 21:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	90		25 - 110	02/23/16 07:20	02/28/16 21:40	1
Phenol-d5	84		31 - 110	02/23/16 07:20	02/28/16 21:40	1
Nitrobenzene-d5	83		25 - 115	02/23/16 07:20	02/28/16 21:40	1
2-Fluorobiphenyl	86		25 - 119	02/23/16 07:20	02/28/16 21:40	1
2,4,6-Tribromophenol	76		35 - 137	02/23/16 07:20	02/28/16 21:40	1
Terphenyl-d14	210	X	36 - 134	02/23/16 07:20	02/28/16 21:40	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	02/25/16 15:15	02/26/16 21:26	1
Arsenic	2.8		0.54	0.25	mg/Kg	☼	02/25/16 15:15	02/26/16 21:26	1
Barium	36		0.54	0.099	mg/Kg	☼	02/25/16 15:15	02/26/16 21:26	1
Beryllium	0.28		0.22	0.047	mg/Kg	☼	02/25/16 15:15	02/26/16 21:26	1
Boron	8.0		2.7	0.38	mg/Kg	☼	02/25/16 15:15	02/26/16 21:26	1
Cadmium	0.071	J	0.11	0.031	mg/Kg	☼	02/25/16 15:15	02/26/16 21:26	1
Calcium	210000	B	110	35	mg/Kg	☼	02/25/16 15:15	02/28/16 01:02	10
Chromium	7.5	B	0.54	0.093	mg/Kg	☼	02/25/16 15:15	02/26/16 21:26	1
Cobalt	3.6		0.27	0.061	mg/Kg	☼	02/25/16 15:15	02/26/16 21:26	1
Copper	9.2	B	0.54	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 21:26	1
Iron	7000	B	11	4.2	mg/Kg	☼	02/25/16 15:15	02/26/16 21:26	1
Lead	19		0.27	0.13	mg/Kg	☼	02/25/16 15:15	02/26/16 21:26	1
Magnesium	120000	B	54	22	mg/Kg	☼	02/25/16 15:15	02/28/16 01:02	10
Manganese	320	B	0.54	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 21:26	1
Nickel	8.2		0.54	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 21:26	1
Potassium	600		27	4.4	mg/Kg	☼	02/25/16 15:15	02/26/16 21:26	1
Selenium	0.50	J	0.54	0.27	mg/Kg	☼	02/25/16 15:15	02/29/16 14:21	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	02/25/16 15:15	02/26/16 21:26	1
Sodium	1500	B	54	7.1	mg/Kg	☼	02/25/16 15:15	02/26/16 21:26	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	02/25/16 15:15	02/26/16 21:26	1
Vanadium	11		0.27	0.079	mg/Kg	☼	02/25/16 15:15	02/26/16 21:26	1
Zinc	42		11	3.4	mg/Kg	☼	02/25/16 15:15	02/28/16 01:02	10

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.51		0.50	0.050	mg/L		02/25/16 08:27	02/26/16 20:22	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 20:22	1
Boron	0.11	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 20:22	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B01 (0-1)

Lab Sample ID: 500-107704-8

Date Collected: 02/17/16 14:15

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 20:22	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:22	1
Cobalt	0.015	J	0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:22	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 20:22	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 20:22	1
Manganese	3.4		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:22	1
Nickel	0.015	J	0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:22	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 20:22	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:22	1
Zinc	0.13	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 20:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.25		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 04:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 20:35	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 20:35	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:33	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	J	0.018	0.0096	mg/Kg	☼	02/23/16 15:15	02/24/16 11:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.22		0.200	0.200	SU			02/23/16 13:50	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B03 (0-1)

Lab Sample ID: 500-107704-9

Date Collected: 02/17/16 14:20

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 91.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.014	*	0.014	0.0027	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Benzene	<0.0035		0.0035	0.00077	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Bromodichloromethane	<0.0035		0.0035	0.00058	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Bromoform	<0.0035		0.0035	0.00071	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Bromomethane	<0.0035	*	0.0035	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
2-Butanone (MEK)	<0.0035		0.0035	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Carbon disulfide	<0.0035		0.0035	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Carbon tetrachloride	<0.0035		0.0035	0.00074	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Chlorobenzene	<0.0035		0.0035	0.00082	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Chloroethane	<0.0035		0.0035	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Chloroform	<0.0035		0.0035	0.00067	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Chloromethane	<0.0035		0.0035	0.00083	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
cis-1,2-Dichloroethene	<0.0035		0.0035	0.00071	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
cis-1,3-Dichloropropene	<0.0035		0.0035	0.00079	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Dibromochloromethane	<0.0035		0.0035	0.00040	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
1,1-Dichloroethane	<0.0035		0.0035	0.00071	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
1,2-Dichloroethane	<0.0035		0.0035	0.00051	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
1,1-Dichloroethene	<0.0035		0.0035	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
1,2-Dichloropropane	<0.0035		0.0035	0.00091	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
1,3-Dichloropropane, Total	<0.0035		0.0035	0.00098	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Ethylbenzene	<0.0035		0.0035	0.00086	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
2-Hexanone	<0.0035		0.0035	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Methylene Chloride	<0.0035		0.0035	0.0026	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
4-Methyl-2-pentanone (MIBK)	<0.0035		0.0035	0.00071	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Methyl tert-butyl ether	<0.0035		0.0035	0.00082	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Styrene	<0.0035		0.0035	0.00081	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
1,1,2,2-Tetrachloroethane	<0.0035		0.0035	0.00055	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Tetrachloroethene	<0.0035		0.0035	0.00072	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Toluene	<0.0035		0.0035	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
trans-1,2-Dichloroethene	<0.0035		0.0035	0.00086	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
trans-1,3-Dichloropropene	<0.0035		0.0035	0.00098	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
1,1,1-Trichloroethane	<0.0035		0.0035	0.00080	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
1,1,2-Trichloroethane	<0.0035		0.0035	0.00067	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Trichloroethene	<0.0035		0.0035	0.00093	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Vinyl acetate	<0.0035		0.0035	0.00093	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Vinyl chloride	<0.0035		0.0035	0.00082	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1
Xylenes, Total	<0.0069		0.0069	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 19:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 122	02/18/16 08:10	02/24/16 19:33	1
Dibromofluoromethane	107		75 - 120	02/18/16 08:10	02/24/16 19:33	1
1,2-Dichloroethane-d4 (Surr)	114		70 - 134	02/18/16 08:10	02/24/16 19:33	1
Toluene-d8 (Surr)	110		75 - 122	02/18/16 08:10	02/24/16 19:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.078	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B03 (0-1)

Lab Sample ID: 500-107704-9

Date Collected: 02/17/16 14:20

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 91.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
N-Nitrosodi-n-propylamine	<0.071		0.071	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
2,4-Dichlorophenol	<0.35		0.35	0.084	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
4-Chloroaniline	<0.71		0.71	0.17	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
2,4,5-Trichlorophenol	<0.35		0.35	0.080	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
2-Methylnaphthalene	<0.035		0.035	0.0065	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Acenaphthylene	<0.035		0.035	0.0046	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Acenaphthene	<0.035		0.035	0.0063	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
4-Nitrophenol	<0.71		0.71	0.34	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Fluorene	<0.035		0.035	0.0050	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Hexachlorobenzene	<0.071		0.071	0.0082	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Pentachlorophenol	<0.71		0.71	0.57	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Phenanthrene	0.043		0.035	0.0049	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Anthracene	0.0087 J		0.035	0.0059	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Carbazole	<0.18		0.18	0.088	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Fluoranthene	0.075		0.035	0.0065	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Pyrene	0.20		0.035	0.0070	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Benzo[a]anthracene	0.053		0.035	0.0047	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B03 (0-1)

Lab Sample ID: 500-107704-9

Date Collected: 02/17/16 14:20

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 91.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.066		0.035	0.0096	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.064	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Benzo[b]fluoranthene	0.13		0.035	0.0076	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Benzo[k]fluoranthene	0.051		0.035	0.010	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Benzo[a]pyrene	0.088		0.035	0.0068	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Indeno[1,2,3-cd]pyrene	0.072		0.035	0.0091	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0068	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
Benzo[g,h,i]perylene	0.11		0.035	0.011	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	02/23/16 07:20	02/28/16 22:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	95		25 - 110	02/23/16 07:20	02/28/16 22:05	1
Phenol-d5	88		31 - 110	02/23/16 07:20	02/28/16 22:05	1
Nitrobenzene-d5	87		25 - 115	02/23/16 07:20	02/28/16 22:05	1
2-Fluorobiphenyl	91		25 - 119	02/23/16 07:20	02/28/16 22:05	1
2,4,6-Tribromophenol	80		35 - 137	02/23/16 07:20	02/28/16 22:05	1
Terphenyl-d14	214	X	36 - 134	02/23/16 07:20	02/28/16 22:05	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.22	mg/Kg	☼	02/25/16 15:15	02/26/16 21:31	1
Arsenic	2.7		0.52	0.24	mg/Kg	☼	02/25/16 15:15	02/26/16 21:31	1
Barium	31		0.52	0.096	mg/Kg	☼	02/25/16 15:15	02/26/16 21:31	1
Beryllium	0.23		0.21	0.045	mg/Kg	☼	02/25/16 15:15	02/26/16 21:31	1
Boron	6.7		2.6	0.37	mg/Kg	☼	02/25/16 15:15	02/26/16 21:31	1
Cadmium	0.30		0.10	0.030	mg/Kg	☼	02/25/16 15:15	02/26/16 21:31	1
Calcium	180000	B	100	34	mg/Kg	☼	02/25/16 15:15	02/28/16 01:07	10
Chromium	6.6	B	0.52	0.090	mg/Kg	☼	02/25/16 15:15	02/26/16 21:31	1
Cobalt	3.4		0.26	0.059	mg/Kg	☼	02/25/16 15:15	02/26/16 21:31	1
Copper	7.4	B	0.52	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 21:31	1
Iron	7100	B	10	4.0	mg/Kg	☼	02/25/16 15:15	02/26/16 21:31	1
Lead	11		0.26	0.13	mg/Kg	☼	02/25/16 15:15	02/26/16 21:31	1
Magnesium	100000	B	52	21	mg/Kg	☼	02/25/16 15:15	02/28/16 01:07	10
Manganese	320	B	0.52	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 21:31	1
Nickel	8.1		0.52	0.14	mg/Kg	☼	02/25/16 15:15	02/26/16 21:31	1
Potassium	520		26	4.3	mg/Kg	☼	02/25/16 15:15	02/26/16 21:31	1
Selenium	<0.52		0.52	0.26	mg/Kg	☼	02/25/16 15:15	02/29/16 14:26	1
Silver	<0.26		0.26	0.061	mg/Kg	☼	02/25/16 15:15	02/26/16 21:31	1
Sodium	1100	B	52	6.9	mg/Kg	☼	02/25/16 15:15	02/26/16 21:31	1
Thallium	<0.52		0.52	0.26	mg/Kg	☼	02/25/16 15:15	02/26/16 21:31	1
Vanadium	11		0.26	0.077	mg/Kg	☼	02/25/16 15:15	02/26/16 21:31	1
Zinc	39		10	3.3	mg/Kg	☼	02/25/16 15:15	02/28/16 01:07	10

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.41	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 20:29	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 20:29	1
Boron	<0.50		0.50	0.050	mg/L		02/25/16 08:27	02/26/16 20:29	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B03 (0-1)

Lab Sample ID: 500-107704-9

Date Collected: 02/17/16 14:20

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 91.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 20:29	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:29	1
Cobalt	0.013	J	0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:29	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 20:29	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 20:29	1
Manganese	3.1		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:29	1
Nickel	0.016	J	0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:29	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 20:29	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:29	1
Zinc	0.12	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 20:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.23		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 04:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 20:39	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 20:39	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:35	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.016	0.0084	mg/Kg	☼	02/23/16 15:15	02/24/16 11:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.22		0.200	0.200	SU			02/23/16 13:55	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B04 (0-1)

Lab Sample ID: 500-107704-10

Date Collected: 02/17/16 14:30

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 89.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0033	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Benzene	<0.0043		0.0043	0.00095	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Bromodichloromethane	<0.0043		0.0043	0.00072	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Bromoform	<0.0043		0.0043	0.00087	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Bromomethane	<0.0043	*	0.0043	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
2-Butanone (MEK)	<0.0043		0.0043	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Carbon disulfide	<0.0043		0.0043	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Carbon tetrachloride	<0.0043		0.0043	0.00091	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Chlorobenzene	<0.0043		0.0043	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Chloroethane	<0.0043		0.0043	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Chloroform	<0.0043		0.0043	0.00083	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Chloromethane	<0.0043		0.0043	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
cis-1,2-Dichloroethene	<0.0043		0.0043	0.00087	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
cis-1,3-Dichloropropene	<0.0043		0.0043	0.00097	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Dibromochloromethane	<0.0043		0.0043	0.00049	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
1,1-Dichloroethane	<0.0043		0.0043	0.00088	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
1,2-Dichloroethane	<0.0043		0.0043	0.00063	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
1,1-Dichloroethene	<0.0043		0.0043	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
1,2-Dichloropropane	<0.0043		0.0043	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
1,3-Dichloropropene, Total	<0.0043		0.0043	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Ethylbenzene	<0.0043		0.0043	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Methylene Chloride	<0.0043		0.0043	0.0032	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.00088	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Methyl tert-butyl ether	<0.0043		0.0043	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Styrene	<0.0043		0.0043	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
1,1,2,2-Tetrachloroethane	<0.0043		0.0043	0.00068	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Tetrachloroethene	<0.0043		0.0043	0.00089	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Toluene	<0.0043		0.0043	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
trans-1,2-Dichloroethene	<0.0043		0.0043	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
trans-1,3-Dichloropropene	<0.0043		0.0043	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
1,1,1-Trichloroethane	<0.0043		0.0043	0.00099	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
1,1,2-Trichloroethane	<0.0043		0.0043	0.00083	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Trichloroethene	<0.0043		0.0043	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Vinyl acetate	<0.0043		0.0043	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Vinyl chloride	<0.0043		0.0043	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1
Xylenes, Total	<0.0085		0.0085	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 13:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 122	02/18/16 08:10	02/24/16 13:45	1
Dibromofluoromethane	92		75 - 120	02/18/16 08:10	02/24/16 13:45	1
1,2-Dichloroethane-d4 (Surr)	85		70 - 134	02/18/16 08:10	02/24/16 13:45	1
Toluene-d8 (Surr)	103		75 - 122	02/18/16 08:10	02/24/16 13:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.078	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.052	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
1,3-Dichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B04 (0-1)

Lab Sample ID: 500-107704-10

Date Collected: 02/17/16 14:30

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 89.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
2-Methylphenol	<0.18		0.18	0.056	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
N-Nitrosodi-n-propylamine	<0.071		0.071	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Hexachloroethane	<0.18		0.18	0.053	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Nitrobenzene	<0.035		0.035	0.0087	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Isophorone	<0.18		0.18	0.039	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
2,4-Dichlorophenol	<0.35		0.35	0.083	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
4-Chloroaniline	<0.71		0.71	0.16	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
2,4,5-Trichlorophenol	<0.35		0.35	0.080	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
2-Methylnaphthalene	<0.035		0.035	0.0064	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Acenaphthylene	<0.035		0.035	0.0046	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Acenaphthene	<0.035		0.035	0.0063	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
4-Nitrophenol	<0.71		0.71	0.33	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Fluorene	<0.035		0.035	0.0049	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Hexachlorobenzene	<0.071		0.071	0.0081	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Diethyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Pentachlorophenol	<0.71		0.71	0.56	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
N-Nitrosodiphenylamine	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Phenanthrene	0.025	J	0.035	0.0049	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Anthracene	<0.035		0.035	0.0058	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Carbazole	<0.18		0.18	0.087	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Di-n-butyl phthalate	<0.18		0.18	0.053	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Fluoranthene	0.046		0.035	0.0065	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Pyrene	0.12		0.035	0.0069	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Benzo[a]anthracene	0.034	J	0.035	0.0047	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B04 (0-1)

Lab Sample ID: 500-107704-10

Date Collected: 02/17/16 14:30

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 89.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.047		0.035	0.0095	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.064	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Di-n-octyl phthalate	<0.18		0.18	0.057	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Benzo[b]fluoranthene	0.084		0.035	0.0075	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Benzo[k]fluoranthene	0.034	J	0.035	0.010	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Benzo[a]pyrene	0.049		0.035	0.0068	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Indeno[1,2,3-cd]pyrene	<0.035		0.035	0.0091	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0068	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
Benzo[g,h,i]perylene	<0.035		0.035	0.011	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1
3 & 4 Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	02/23/16 07:20	02/28/16 22:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	87		25 - 110	02/23/16 07:20	02/28/16 22:30	1
Phenol-d5	82		31 - 110	02/23/16 07:20	02/28/16 22:30	1
Nitrobenzene-d5	83		25 - 115	02/23/16 07:20	02/28/16 22:30	1
2-Fluorobiphenyl	87		25 - 119	02/23/16 07:20	02/28/16 22:30	1
2,4,6-Tribromophenol	70		35 - 137	02/23/16 07:20	02/28/16 22:30	1
Terphenyl-d14	218	X	36 - 134	02/23/16 07:20	02/28/16 22:30	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	☼	02/25/16 15:15	02/26/16 21:36	1
Arsenic	2.4		0.55	0.25	mg/Kg	☼	02/25/16 15:15	02/26/16 21:36	1
Barium	21		0.55	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 21:36	1
Beryllium	0.23		0.22	0.048	mg/Kg	☼	02/25/16 15:15	02/26/16 21:36	1
Boron	8.8		2.7	0.38	mg/Kg	☼	02/25/16 15:15	02/26/16 21:36	1
Cadmium	0.060	J	0.11	0.032	mg/Kg	☼	02/25/16 15:15	02/26/16 21:36	1
Calcium	210000	B	110	35	mg/Kg	☼	02/25/16 15:15	02/28/16 01:11	10
Chromium	5.9	B	0.55	0.095	mg/Kg	☼	02/25/16 15:15	02/26/16 21:36	1
Cobalt	3.1		0.27	0.062	mg/Kg	☼	02/25/16 15:15	02/26/16 21:36	1
Copper	8.4	B	0.55	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 21:36	1
Iron	6500	B	11	4.2	mg/Kg	☼	02/25/16 15:15	02/26/16 21:36	1
Lead	16		0.27	0.14	mg/Kg	☼	02/25/16 15:15	02/26/16 21:36	1
Magnesium	120000	B	55	22	mg/Kg	☼	02/25/16 15:15	02/28/16 01:11	10
Manganese	320	B	0.55	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 21:36	1
Nickel	7.2		0.55	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 21:36	1
Potassium	460		27	4.5	mg/Kg	☼	02/25/16 15:15	02/26/16 21:36	1
Selenium	0.37	J	0.55	0.27	mg/Kg	☼	02/25/16 15:15	02/29/16 14:31	1
Silver	<0.27		0.27	0.064	mg/Kg	☼	02/25/16 15:15	02/26/16 21:36	1
Sodium	1100	B	55	7.3	mg/Kg	☼	02/25/16 15:15	02/26/16 21:36	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	02/25/16 15:15	02/26/16 21:36	1
Vanadium	8.7		0.27	0.080	mg/Kg	☼	02/25/16 15:15	02/26/16 21:36	1
Zinc	41		11	3.5	mg/Kg	☼	02/25/16 15:15	02/28/16 01:11	10

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.36	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 20:51	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 20:51	1
Boron	0.063	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 20:51	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B04 (0-1)

Lab Sample ID: 500-107704-10

Date Collected: 02/17/16 14:30

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 89.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 20:51	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:51	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:51	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 20:51	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 20:51	1
Manganese	1.8		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:51	1
Nickel	0.017	J	0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:51	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 20:51	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:51	1
Zinc	0.14	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 20:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.26		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 04:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 20:43	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 20:43	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:37	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	J	0.018	0.0095	mg/Kg	☼	02/23/16 15:15	02/24/16 11:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.70		0.200	0.200	SU			02/23/16 14:00	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B06 (0-1)

Lab Sample ID: 500-107704-11

Date Collected: 02/17/16 14:50

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.046		0.017	0.0033	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Benzene	<0.0042		0.0042	0.00093	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Bromodichloromethane	<0.0042		0.0042	0.00071	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Bromoform	<0.0042		0.0042	0.00086	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Bromomethane	<0.0042		0.0042	0.0015	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
2-Butanone (MEK)	0.0076		0.0042	0.0015	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Carbon disulfide	<0.0042		0.0042	0.0015	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Carbon tetrachloride	<0.0042		0.0042	0.00090	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Chlorobenzene	<0.0042		0.0042	0.00099	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Chloroethane	<0.0042		0.0042	0.0018	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Chloroform	<0.0042		0.0042	0.00082	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Chloromethane	<0.0042		0.0042	0.0010	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
cis-1,2-Dichloroethene	<0.0042		0.0042	0.00086	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
cis-1,3-Dichloropropene	<0.0042		0.0042	0.00096	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Dibromochloromethane	<0.0042		0.0042	0.00048	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
1,1-Dichloroethane	<0.0042		0.0042	0.00087	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
1,2-Dichloroethane	<0.0042		0.0042	0.00062	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
1,1-Dichloroethene	<0.0042		0.0042	0.0015	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
1,2-Dichloropropane	<0.0042		0.0042	0.0011	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
1,3-Dichloropropane, Total	<0.0042		0.0042	0.0012	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Ethylbenzene	<0.0042		0.0042	0.0010	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Methylene Chloride	<0.0042		0.0042	0.0032	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.00087	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Methyl tert-butyl ether	<0.0042		0.0042	0.00099	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Styrene	<0.0042		0.0042	0.00098	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
1,1,2,2-Tetrachloroethane	<0.0042		0.0042	0.00067	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Tetrachloroethene	<0.0042		0.0042	0.00087	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Toluene	<0.0042		0.0042	0.0015	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
trans-1,2-Dichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
trans-1,3-Dichloropropene	<0.0042		0.0042	0.0012	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
1,1,1-Trichloroethane	<0.0042		0.0042	0.00097	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
1,1,2-Trichloroethane	<0.0042		0.0042	0.00081	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Trichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Vinyl acetate	<0.0042 *		0.0042	0.0011	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Vinyl chloride	<0.0042		0.0042	0.0010	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1
Xylenes, Total	<0.0084		0.0084	0.0016	mg/Kg	☼	02/17/16 14:50	02/29/16 17:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 122	02/17/16 14:50	02/29/16 17:58	1
Dibromofluoromethane	112		75 - 120	02/17/16 14:50	02/29/16 17:58	1
1,2-Dichloroethane-d4 (Surr)	116		70 - 134	02/17/16 14:50	02/29/16 17:58	1
Toluene-d8 (Surr)	113		75 - 122	02/17/16 14:50	02/29/16 17:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.081	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B06 (0-1)

Lab Sample ID: 500-107704-11

Date Collected: 02/17/16 14:50

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Hexachloroethane	<0.18		0.18	0.056	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
2-Chlorophenol	<0.18		0.18	0.063	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Hexachlorobutadiene	<0.18		0.18	0.058	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Naphthalene	0.0087	J	0.036	0.0056	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
2,4,6-Trichlorophenol	<0.36		0.36	0.13	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
2,4,5-Trichlorophenol	<0.36		0.36	0.084	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
2-Methylnaphthalene	<0.036		0.036	0.0067	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
2-Nitrophenol	<0.36		0.36	0.087	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Acenaphthene	0.011	J	0.036	0.0066	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Fluorene	0.011	J	0.036	0.0052	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.29	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Phenanthrene	0.17		0.036	0.0051	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Anthracene	0.034	J	0.036	0.0061	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Carbazole	<0.18		0.18	0.092	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Fluoranthene	0.25		0.036	0.0068	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Pyrene	0.63		0.036	0.0073	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Butyl benzyl phthalate	<0.18		0.18	0.070	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Benzo[a]anthracene	0.17		0.036	0.0049	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B06 (0-1)
Date Collected: 02/17/16 14:50
Date Received: 02/18/16 07:30

Lab Sample ID: 500-107704-11
Matrix: Solid
Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.22		0.036	0.010	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Di-n-octyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Benzo[b]fluoranthene	0.36		0.036	0.0079	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Benzo[k]fluoranthene	0.12		0.036	0.011	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Benzo[a]pyrene	0.17		0.036	0.0071	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Indeno[1,2,3-cd]pyrene	0.15		0.036	0.0095	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0071	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Benzo[g,h,i]perylene	0.19		0.036	0.012	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	02/23/16 07:20	02/28/16 22:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	94		25 - 110				02/23/16 07:20	02/28/16 22:54	1
Phenol-d5	69		31 - 110				02/23/16 07:20	02/28/16 22:54	1
Nitrobenzene-d5	88		25 - 115				02/23/16 07:20	02/28/16 22:54	1
2-Fluorobiphenyl	91		25 - 119				02/23/16 07:20	02/28/16 22:54	1
2,4,6-Tribromophenol	81		35 - 137				02/23/16 07:20	02/28/16 22:54	1
Terphenyl-d14	222	X	36 - 134				02/23/16 07:20	02/28/16 22:54	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	☼	02/25/16 15:15	02/26/16 21:49	1
Arsenic	4.2		0.54	0.25	mg/Kg	☼	02/25/16 15:15	02/26/16 21:49	1
Barium	23		0.54	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 21:49	1
Beryllium	0.32		0.22	0.047	mg/Kg	☼	02/25/16 15:15	02/26/16 21:49	1
Boron	9.7		2.7	0.38	mg/Kg	☼	02/25/16 15:15	02/26/16 21:49	1
Cadmium	0.084	J	0.11	0.032	mg/Kg	☼	02/25/16 15:15	02/26/16 21:49	1
Calcium	150000	B	110	35	mg/Kg	☼	02/25/16 15:15	02/28/16 01:16	10
Chromium	12	B	0.54	0.094	mg/Kg	☼	02/25/16 15:15	02/26/16 21:49	1
Cobalt	4.5		0.27	0.062	mg/Kg	☼	02/25/16 15:15	02/26/16 21:49	1
Copper	13	B	0.54	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 21:49	1
Iron	9600	B	11	4.2	mg/Kg	☼	02/25/16 15:15	02/26/16 21:49	1
Lead	47		0.27	0.14	mg/Kg	☼	02/25/16 15:15	02/26/16 21:49	1
Magnesium	87000	B	54	22	mg/Kg	☼	02/25/16 15:15	02/28/16 01:16	10
Manganese	430	B	0.54	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 21:49	1
Nickel	11		0.54	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 21:49	1
Potassium	940		27	4.4	mg/Kg	☼	02/25/16 15:15	02/26/16 21:49	1
Selenium	<0.54		0.54	0.27	mg/Kg	☼	02/25/16 15:15	02/29/16 14:36	1
Silver	<0.27		0.27	0.064	mg/Kg	☼	02/25/16 15:15	02/26/16 21:49	1
Sodium	1300	B	54	7.2	mg/Kg	☼	02/25/16 15:15	02/26/16 21:49	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	02/25/16 15:15	02/26/16 21:49	1
Vanadium	14		0.27	0.079	mg/Kg	☼	02/25/16 15:15	02/26/16 21:49	1
Zinc	62		11	3.4	mg/Kg	☼	02/25/16 15:15	02/28/16 01:16	10

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.23	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 20:58	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 20:58	1
Boron	0.062	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 20:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B06 (0-1)

Lab Sample ID: 500-107704-11

Date Collected: 02/17/16 14:50

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 20:58	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:58	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:58	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 20:58	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 20:58	1
Manganese	0.96		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:58	1
Nickel	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:58	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 20:58	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 20:58	1
Zinc	0.084	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 20:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.12		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 04:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 20:47	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 20:47	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:39	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020		0.018	0.0093	mg/Kg	☼	02/23/16 15:15	02/24/16 11:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.53		0.200	0.200	SU			02/23/16 14:06	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B08 (0-1)

Lab Sample ID: 500-107704-12

Date Collected: 02/17/16 14:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0031	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Benzene	<0.0041		0.0041	0.00090	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Bromodichloromethane	<0.0041		0.0041	0.00069	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Bromoform	<0.0041		0.0041	0.00083	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Bromomethane	<0.0041	*	0.0041	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
2-Butanone (MEK)	<0.0041		0.0041	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Carbon disulfide	<0.0041		0.0041	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Carbon tetrachloride	<0.0041		0.0041	0.00087	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Chlorobenzene	<0.0041		0.0041	0.00096	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Chloroethane	<0.0041		0.0041	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Chloroform	<0.0041		0.0041	0.00079	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Chloromethane	<0.0041		0.0041	0.00098	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
cis-1,2-Dichloroethene	<0.0041		0.0041	0.00083	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
cis-1,3-Dichloropropene	<0.0041		0.0041	0.00093	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Dibromochloromethane	<0.0041		0.0041	0.00047	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
1,1-Dichloroethane	<0.0041		0.0041	0.00084	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
1,2-Dichloroethane	<0.0041		0.0041	0.00060	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
1,1-Dichloroethene	<0.0041		0.0041	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
1,2-Dichloropropane	<0.0041		0.0041	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
1,3-Dichloropropane, Total	<0.0041		0.0041	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Ethylbenzene	<0.0041		0.0041	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Methylene Chloride	<0.0041		0.0041	0.0031	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.00084	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Methyl tert-butyl ether	<0.0041		0.0041	0.00096	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Styrene	<0.0041		0.0041	0.00095	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
1,1,2,2-Tetrachloroethane	<0.0041		0.0041	0.00065	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Tetrachloroethene	<0.0041		0.0041	0.00085	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Toluene	<0.0041		0.0041	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
trans-1,2-Dichloroethene	<0.0041		0.0041	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
trans-1,3-Dichloropropene	<0.0041		0.0041	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
1,1,1-Trichloroethane	<0.0041		0.0041	0.00094	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
1,1,2-Trichloroethane	<0.0041		0.0041	0.00079	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Trichloroethene	<0.0041		0.0041	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Vinyl acetate	<0.0041		0.0041	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Vinyl chloride	<0.0041		0.0041	0.00097	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1
Xylenes, Total	<0.0081		0.0081	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 14:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 122	02/18/16 08:10	02/24/16 14:36	1
Dibromofluoromethane	89		75 - 120	02/18/16 08:10	02/24/16 14:36	1
1,2-Dichloroethane-d4 (Surr)	81		70 - 134	02/18/16 08:10	02/24/16 14:36	1
Toluene-d8 (Surr)	105		75 - 122	02/18/16 08:10	02/24/16 14:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.086	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
1,3-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B08 (0-1)

Lab Sample ID: 500-107704-12

Date Collected: 02/17/16 14:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.040	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Isophorone	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
2,4-Dichlorophenol	<0.39		0.39	0.092	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
2,4,5-Trichlorophenol	<0.39		0.39	0.088	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
2-Methylnaphthalene	<0.039		0.039	0.0071	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Dimethyl phthalate	<0.19		0.19	0.051	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
2,4-Dinitrotoluene	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Fluorene	0.0059	J	0.039	0.0055	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Diethyl phthalate	<0.19		0.19	0.066	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Phenanthrene	0.10		0.039	0.0054	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Anthracene	0.019	J	0.039	0.0065	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Fluoranthene	0.15		0.039	0.0072	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Pyrene	0.40		0.039	0.0077	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Butyl benzyl phthalate	<0.19		0.19	0.074	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Benzo[a]anthracene	0.11		0.039	0.0052	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B08 (0-1)

Lab Sample ID: 500-107704-12

Date Collected: 02/17/16 14:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.14		0.039	0.011	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Benzo[b]fluoranthene	0.19		0.039	0.0084	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Benzo[k]fluoranthene	0.089		0.039	0.011	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Benzo[a]pyrene	0.13		0.039	0.0075	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Indeno[1,2,3-cd]pyrene	0.11		0.039	0.010	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
Benzo[g,h,i]perylene	0.15		0.039	0.012	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1
3 & 4 Methylphenol	<0.19		0.19	0.065	mg/Kg	☼	02/23/16 07:20	02/28/16 23:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	94		25 - 110	02/23/16 07:20	02/28/16 23:19	1
Phenol-d5	81		31 - 110	02/23/16 07:20	02/28/16 23:19	1
Nitrobenzene-d5	85		25 - 115	02/23/16 07:20	02/28/16 23:19	1
2-Fluorobiphenyl	92		25 - 119	02/23/16 07:20	02/28/16 23:19	1
2,4,6-Tribromophenol	77		35 - 137	02/23/16 07:20	02/28/16 23:19	1
Terphenyl-d14	226	X	36 - 134	02/23/16 07:20	02/28/16 23:19	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	02/25/16 15:15	02/26/16 21:54	1
Arsenic	4.2		0.54	0.25	mg/Kg	☼	02/25/16 15:15	02/26/16 21:54	1
Barium	31		0.54	0.098	mg/Kg	☼	02/25/16 15:15	02/26/16 21:54	1
Beryllium	0.22		0.22	0.047	mg/Kg	☼	02/25/16 15:15	02/26/16 21:54	1
Boron	13		2.7	0.38	mg/Kg	☼	02/25/16 15:15	02/26/16 21:54	1
Cadmium	0.050	J	0.11	0.031	mg/Kg	☼	02/25/16 15:15	02/26/16 21:54	1
Calcium	210000	B	110	35	mg/Kg	☼	02/25/16 15:15	02/28/16 01:20	10
Chromium	7.5	B	0.54	0.093	mg/Kg	☼	02/25/16 15:15	02/26/16 21:54	1
Cobalt	2.9		0.27	0.061	mg/Kg	☼	02/25/16 15:15	02/26/16 21:54	1
Copper	9.5	B	0.54	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 21:54	1
Iron	11000	B	11	4.1	mg/Kg	☼	02/25/16 15:15	02/26/16 21:54	1
Lead	22		0.27	0.13	mg/Kg	☼	02/25/16 15:15	02/26/16 21:54	1
Magnesium	130000	B	54	22	mg/Kg	☼	02/25/16 15:15	02/28/16 01:20	10
Manganese	360	B	0.54	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 21:54	1
Nickel	7.9		0.54	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 21:54	1
Potassium	510		27	4.4	mg/Kg	☼	02/25/16 15:15	02/26/16 21:54	1
Selenium	0.53	J	0.54	0.27	mg/Kg	☼	02/25/16 15:15	02/29/16 14:41	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	02/25/16 15:15	02/26/16 21:54	1
Sodium	1100	B	54	7.1	mg/Kg	☼	02/25/16 15:15	02/26/16 21:54	1
Thallium	<0.54		0.54	0.26	mg/Kg	☼	02/25/16 15:15	02/26/16 21:54	1
Vanadium	9.8		0.27	0.079	mg/Kg	☼	02/25/16 15:15	02/26/16 21:54	1
Zinc	34		11	3.4	mg/Kg	☼	02/25/16 15:15	02/28/16 01:20	10

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.40	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:05	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 21:05	1
Boron	0.072	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B08 (0-1)

Lab Sample ID: 500-107704-12

Date Collected: 02/17/16 14:55

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 21:05	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:05	1
Cobalt	0.011	J	0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:05	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 21:05	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 21:05	1
Manganese	3.2		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:05	1
Nickel	0.013	J	0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:05	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 21:05	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:05	1
Zinc	0.095	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 21:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.11		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 04:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 20:51	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 20:51	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:41	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012	J	0.020	0.010	mg/Kg	☼	02/23/16 15:15	02/24/16 11:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.24		0.200	0.200	SU			02/23/16 14:11	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B09 (0-1)

Lab Sample ID: 500-107704-13

Date Collected: 02/17/16 15:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 89.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.25		0.25	0.087	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Benzene	<0.013		0.013	0.0074	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Bromodichloromethane	<0.050		0.050	0.019	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Bromoform	<0.050		0.050	0.024	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Bromomethane	<0.10		0.10	0.040	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
2-Butanone (MEK)	<0.25		0.25	0.11	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Carbon disulfide	<0.10		0.10	0.040	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Carbon tetrachloride	<0.050		0.050	0.019	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Chlorobenzene	<0.050		0.050	0.019	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Chloroethane	<0.050		0.050	0.025	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Chloroform	<0.050		0.050	0.019	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Chloromethane	<0.050		0.050	0.016	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
cis-1,2-Dichloroethene	<0.050		0.050	0.021	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
cis-1,3-Dichloropropene	<0.050		0.050	0.021	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Dibromochloromethane	<0.050		0.050	0.025	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
1,1-Dichloroethane	<0.050		0.050	0.021	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
1,2-Dichloroethane	<0.050		0.050	0.020	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
1,1-Dichloroethene	<0.050		0.050	0.020	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
1,2-Dichloropropane	<0.050		0.050	0.022	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
1,3-Dichloropropene, Total	<0.050		0.050	0.021	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Ethylbenzene	<0.013		0.013	0.0092	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
2-Hexanone	<0.25		0.25	0.079	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Methylene Chloride	<0.25		0.25	0.082	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
4-Methyl-2-pentanone (MIBK)	<0.25		0.25	0.11	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Methyl tert-butyl ether	0.093		0.050	0.020	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Styrene	<0.050		0.050	0.019	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
1,1,2,2-Tetrachloroethane	<0.050		0.050	0.020	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Tetrachloroethene	<0.050		0.050	0.019	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Toluene	<0.013		0.013	0.0074	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
trans-1,2-Dichloroethene	<0.050		0.050	0.018	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
trans-1,3-Dichloropropene	<0.050		0.050	0.018	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
1,1,1-Trichloroethane	<0.050		0.050	0.019	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
1,1,2-Trichloroethane	<0.050		0.050	0.018	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Trichloroethene	<0.025	*	0.025	0.0083	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Vinyl acetate	<0.10		0.10	0.046	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Vinyl chloride	<0.025		0.025	0.013	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50
Xylenes, Total	<0.025		0.025	0.011	mg/Kg	☼	02/17/16 15:00	02/29/16 14:27	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 120	02/17/16 15:00	02/29/16 14:27	50
Dibromofluoromethane	101		75 - 120	02/17/16 15:00	02/29/16 14:27	50
1,2-Dichloroethane-d4 (Surr)	98		75 - 125	02/17/16 15:00	02/29/16 14:27	50
Toluene-d8 (Surr)	96		75 - 120	02/17/16 15:00	02/29/16 14:27	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.082	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B09 (0-1)

Lab Sample ID: 500-107704-13

Date Collected: 02/17/16 15:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 89.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Hexachloroethane	<0.18		0.18	0.056	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
2-Chlorophenol	<0.18		0.18	0.063	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Nitrobenzene	<0.036		0.036	0.0092	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Hexachlorobutadiene	<0.18		0.18	0.058	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Naphthalene	<0.036		0.036	0.0057	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
2,4,6-Trichlorophenol	<0.36		0.36	0.13	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
2,4,5-Trichlorophenol	<0.36		0.36	0.084	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
2-Methylnaphthalene	<0.036		0.036	0.0068	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
2-Chloronaphthalene	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
2-Nitrophenol	<0.36		0.36	0.087	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Acenaphthene	<0.036		0.036	0.0066	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Fluorene	<0.036		0.036	0.0052	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.30	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Phenanthrene	0.026	J	0.036	0.0051	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Anthracene	<0.036		0.036	0.0061	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Carbazole	<0.18		0.18	0.092	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Fluoranthene	0.050		0.036	0.0068	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Pyrene	0.14		0.036	0.0073	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Butyl benzyl phthalate	<0.18		0.18	0.070	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Benzo[a]anthracene	0.040		0.036	0.0049	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B09 (0-1)

Lab Sample ID: 500-107704-13

Date Collected: 02/17/16 15:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 89.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.051		0.036	0.010	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Di-n-octyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Benzo[b]fluoranthene	0.081		0.036	0.0079	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Benzo[k]fluoranthene	0.037		0.036	0.011	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Benzo[a]pyrene	0.052		0.036	0.0071	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Indeno[1,2,3-cd]pyrene	0.046		0.036	0.0095	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0071	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
Benzo[g,h,i]perylene	<0.036		0.036	0.012	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	02/23/16 07:20	02/28/16 23:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	88		25 - 110	02/23/16 07:20	02/28/16 23:44	1
Phenol-d5	78		31 - 110	02/23/16 07:20	02/28/16 23:44	1
Nitrobenzene-d5	85		25 - 115	02/23/16 07:20	02/28/16 23:44	1
2-Fluorobiphenyl	89		25 - 119	02/23/16 07:20	02/28/16 23:44	1
2,4,6-Tribromophenol	72		35 - 137	02/23/16 07:20	02/28/16 23:44	1
Terphenyl-d14	211	X	36 - 134	02/23/16 07:20	02/28/16 23:44	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.22	mg/Kg	☼	02/25/16 15:15	02/26/16 22:00	1
Arsenic	2.2		0.52	0.24	mg/Kg	☼	02/25/16 15:15	02/26/16 22:00	1
Barium	24		0.52	0.096	mg/Kg	☼	02/25/16 15:15	02/26/16 22:00	1
Beryllium	0.16	J	0.21	0.045	mg/Kg	☼	02/25/16 15:15	02/26/16 22:00	1
Boron	10		2.6	0.37	mg/Kg	☼	02/25/16 15:15	02/26/16 22:00	1
Cadmium	0.054	J	0.10	0.030	mg/Kg	☼	02/25/16 15:15	02/26/16 22:00	1
Calcium	190000	B	100	34	mg/Kg	☼	02/25/16 15:15	02/28/16 01:31	10
Chromium	8.1	B	0.52	0.090	mg/Kg	☼	02/25/16 15:15	02/26/16 22:00	1
Cobalt	2.5		0.26	0.059	mg/Kg	☼	02/25/16 15:15	02/26/16 22:00	1
Copper	8.3	B	0.52	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 22:00	1
Iron	5800	B	10	4.0	mg/Kg	☼	02/25/16 15:15	02/26/16 22:00	1
Lead	14		0.26	0.13	mg/Kg	☼	02/25/16 15:15	02/26/16 22:00	1
Magnesium	110000	B	52	21	mg/Kg	☼	02/25/16 15:15	02/28/16 01:31	10
Manganese	290	B	0.52	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 22:00	1
Nickel	7.8		0.52	0.14	mg/Kg	☼	02/25/16 15:15	02/26/16 22:00	1
Potassium	530		26	4.3	mg/Kg	☼	02/25/16 15:15	02/26/16 22:00	1
Selenium	<0.52		0.52	0.26	mg/Kg	☼	02/25/16 15:15	02/29/16 12:56	1
Silver	<0.26		0.26	0.061	mg/Kg	☼	02/25/16 15:15	02/26/16 22:00	1
Sodium	820	B	52	6.9	mg/Kg	☼	02/25/16 15:15	02/26/16 22:00	1
Thallium	<0.52		0.52	0.26	mg/Kg	☼	02/25/16 15:15	02/26/16 22:00	1
Vanadium	9.0		0.26	0.077	mg/Kg	☼	02/25/16 15:15	02/26/16 22:00	1
Zinc	26		1.0	0.33	mg/Kg	☼	02/25/16 15:15	02/29/16 12:56	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.39	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:11	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 21:11	1
Boron	0.065	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Client Sample ID: 3011-11-B09 (0-1)

Lab Sample ID: 500-107704-13

Date Collected: 02/17/16 15:00

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 89.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 21:11	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:11	1
Cobalt	0.011	J	0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:11	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 21:11	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 21:11	1
Manganese	2.1		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:11	1
Nickel	0.012	J	0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:11	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 21:11	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:11	1
Zinc	0.071	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 21:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.11		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 04:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 21:04	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 21:04	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:43	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.018		0.018	0.0096	mg/Kg	☼	02/23/16 15:15	02/24/16 11:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.77		0.200	0.200	SU			02/23/16 14:16	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits

GC/MS Semi VOA

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

Metals

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.
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-5

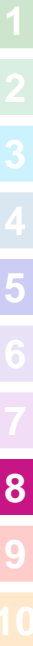
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

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

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

Chain of Custody Record

Lab Job #: 500-107704
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
EE		1009341-0008-01									
Project Name		Lab Project #		# of Containers		Matrix		Matrix		Comments	
TL 38		50011664									
Project Location/State		Lab PM		Date		Time		Matrix		Comments	
Lake County, IL		Dwight									
Sampler		Sample ID		Date		Time		Matrix		Comments	
E-loop pin											
5		3011-11-B07 (0-1)	2-17-16	0400	2	S	X	X	X	X	
6		3011-11-B05 (0-1)	2-17-16	0425	2	S	X	X	X	X	
7		3011-11-D02 (0-1)	2-17-16	0435	2	S	X	X	X	X	
8		3011-11-B01 (0-1)	2-17-16	1415	2	S	X	X	X	X	
9		3011-11-B03 (0-1)	2-17-16	1420	2	S	X	X	X	X	
10		3011-11-B04 (0-1)	2-17-16	1430	2	S	X	X	X	X	
11		2011-11-B06 (0-1)	2-17-16	1450	2	S	X	X	X	X	
12		3011-11-B08 (0-1)	2-17-16	1455	2	S	X	X	X	X	
13		3011-11-B09 (0-1)	2-17-16	1500	2	S	X	X	X	X	
2-17-16											

- Preservative Key
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

Turnaround Time Required (Business Days) 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>EE</u> Company: <u>EE</u> Date: <u>2-17-16</u> Time: <u>1515</u>	Received By: <u>N. Nam</u> Company: <u>TA</u> Date: <u>2/17/16</u> Time: <u>1515</u>
Relinquished By: <u>N. Nam</u> Company: <u>TA</u> Date: <u>2/17/16</u> Time: <u>1645</u>	Received By: <u>Chemist</u> Company: <u>TA-CAT</u> Date: <u>2/18/16</u> Time: <u>0730</u>
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

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

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107704-5

Login Number: 107704

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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ANALYTICAL REPORT

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

TestAmerica Job ID: 500-107704-6
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 1:02:32 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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results through
TotalAccess

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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	6
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Certification Summary	11
Chain of Custody	12
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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-6

Job ID: 500-107704-6

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107704-6

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-324219: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-12-B01 (0-1) (500-107704-14), (MB 500-324045/1-A), (500-107704-E-1-A), (500-107704-E-1-B MS) and (500-107704-E-1-C MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324448 and analytical batch 500-324695 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-6

Client Sample ID: 3011-12-B01 (0-1)

Lab Sample ID: 500-107704-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.073		0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.015	J	0.035	0.0059	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.11		0.035	0.0066	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.30		0.035	0.0070	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.090		0.035	0.0048	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.12		0.035	0.0097	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.19		0.035	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.084		0.035	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.12		0.035	0.0069	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.11		0.035	0.0092	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.15		0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Arsenic	1.9		0.52	0.24	mg/Kg	1	☼	6010B	Total/NA
Barium	21		0.52	0.095	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.19	J	0.21	0.045	mg/Kg	1	☼	6010B	Total/NA
Boron	8.4		2.6	0.36	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.34		0.10	0.030	mg/Kg	1	☼	6010B	Total/NA
Calcium	190000	B	100	34	mg/Kg	10	☼	6010B	Total/NA
Chromium	9.6	B	0.52	0.090	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.7		0.26	0.059	mg/Kg	1	☼	6010B	Total/NA
Copper	10	B	0.52	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	7600	B	10	4.0	mg/Kg	1	☼	6010B	Total/NA
Lead	19		0.26	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	110000	B	52	21	mg/Kg	10	☼	6010B	Total/NA
Manganese	310	B	0.52	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.5		0.52	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	500		26	4.3	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.41	J	0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Sodium	930	B	52	6.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	9.0		0.26	0.076	mg/Kg	1	☼	6010B	Total/NA
Zinc	36		1.0	0.33	mg/Kg	1	☼	6010B	Total/NA
Barium	0.25	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.064	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.8		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.19	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.14		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.98		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-6

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107704-14	3011-12-B01 (0-1)	Solid	02/17/16 14:25	02/18/16 07:30

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-6

Client Sample ID: 3011-12-B01 (0-1)

Lab Sample ID: 500-107704-14

Date Collected: 02/17/16 14:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 91.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.015		0.015	0.0029	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Benzene	<0.0037		0.0037	0.00082	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Bromodichloromethane	<0.0037		0.0037	0.00062	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Bromoform	<0.0037		0.0037	0.00075	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Bromomethane	<0.0037 *		0.0037	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
2-Butanone (MEK)	<0.0037		0.0037	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Carbon disulfide	<0.0037		0.0037	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Carbon tetrachloride	<0.0037		0.0037	0.00079	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Chlorobenzene	<0.0037		0.0037	0.00087	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Chloroethane	<0.0037		0.0037	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Chloroform	<0.0037		0.0037	0.00072	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Chloromethane	<0.0037		0.0037	0.00088	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
cis-1,2-Dichloroethene	<0.0037		0.0037	0.00075	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
cis-1,3-Dichloropropene	<0.0037		0.0037	0.00084	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Dibromochloromethane	<0.0037		0.0037	0.00042	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
1,1-Dichloroethane	<0.0037		0.0037	0.00076	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
1,2-Dichloroethane	<0.0037		0.0037	0.00055	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
1,1-Dichloroethene	<0.0037		0.0037	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
1,2-Dichloropropane	<0.0037		0.0037	0.00097	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
1,3-Dichloropropane, Total	<0.0037		0.0037	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Ethylbenzene	<0.0037		0.0037	0.00091	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
2-Hexanone	<0.0037		0.0037	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Methylene Chloride	<0.0037		0.0037	0.0028	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
4-Methyl-2-pentanone (MIBK)	<0.0037		0.0037	0.00076	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Methyl tert-butyl ether	<0.0037		0.0037	0.00087	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Styrene	<0.0037		0.0037	0.00086	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
1,1,2,2-Tetrachloroethane	<0.0037		0.0037	0.00059	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Tetrachloroethene	<0.0037		0.0037	0.00077	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Toluene	<0.0037		0.0037	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
trans-1,2-Dichloroethene	<0.0037		0.0037	0.00092	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
trans-1,3-Dichloropropene	<0.0037		0.0037	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
1,1,1-Trichloroethane	<0.0037		0.0037	0.00086	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
1,1,2-Trichloroethane	<0.0037		0.0037	0.00071	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Trichloroethene	<0.0037		0.0037	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Vinyl acetate	<0.0037		0.0037	0.00099	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Vinyl chloride	<0.0037		0.0037	0.00088	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Xylenes, Total	<0.0074		0.0074	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 122	02/18/16 08:10	02/24/16 15:27	1
Dibromofluoromethane	95		75 - 120	02/18/16 08:10	02/24/16 15:27	1
1,2-Dichloroethane-d4 (Surr)	82		70 - 134	02/18/16 08:10	02/24/16 15:27	1
Toluene-d8 (Surr)	106		75 - 122	02/18/16 08:10	02/24/16 15:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.079	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-6

Client Sample ID: 3011-12-B01 (0-1)

Lab Sample ID: 500-107704-14

Date Collected: 02/17/16 14:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 91.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
N-Nitrosodi-n-propylamine	<0.071		0.071	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2,4-Dichlorophenol	<0.35		0.35	0.084	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
4-Chloroaniline	<0.71		0.71	0.17	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2,4,5-Trichlorophenol	<0.35		0.35	0.081	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2-Methylnaphthalene	<0.035		0.035	0.0065	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2-Nitrophenol	<0.35		0.35	0.084	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Acenaphthylene	<0.035		0.035	0.0047	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Acenaphthene	<0.035		0.035	0.0064	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
4-Nitrophenol	<0.71		0.71	0.34	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Fluorene	<0.035		0.035	0.0050	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Hexachlorobenzene	<0.071		0.071	0.0082	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Pentachlorophenol	<0.71		0.71	0.57	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Phenanthrene	0.073		0.035	0.0049	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Anthracene	0.015 J		0.035	0.0059	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Carbazole	<0.18		0.18	0.088	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Fluoranthene	0.11		0.035	0.0066	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Pyrene	0.30		0.035	0.0070	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Benzo[a]anthracene	0.090		0.035	0.0048	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-6

Client Sample ID: 3011-12-B01 (0-1)

Lab Sample ID: 500-107704-14

Date Collected: 02/17/16 14:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 91.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.12		0.035	0.0097	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Benzo[b]fluoranthene	0.19		0.035	0.0076	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Benzo[k]fluoranthene	0.084		0.035	0.010	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Benzo[a]pyrene	0.12		0.035	0.0069	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Indeno[1,2,3-cd]pyrene	0.11		0.035	0.0092	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0068	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Benzo[g,h,i]perylene	0.15		0.035	0.011	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	90		25 - 110	02/23/16 07:20	02/29/16 00:09	1
Phenol-d5	84		31 - 110	02/23/16 07:20	02/29/16 00:09	1
Nitrobenzene-d5	85		25 - 115	02/23/16 07:20	02/29/16 00:09	1
2-Fluorobiphenyl	92		25 - 119	02/23/16 07:20	02/29/16 00:09	1
2,4,6-Tribromophenol	73		35 - 137	02/23/16 07:20	02/29/16 00:09	1
Terphenyl-d14	212	X	36 - 134	02/23/16 07:20	02/29/16 00:09	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.22	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Arsenic	1.9		0.52	0.24	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Barium	21		0.52	0.095	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Beryllium	0.19	J	0.21	0.045	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Boron	8.4		2.6	0.36	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Cadmium	0.34		0.10	0.030	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Calcium	190000	B	100	34	mg/Kg	☼	02/25/16 15:15	02/28/16 01:35	10
Chromium	9.6	B	0.52	0.090	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Cobalt	2.7		0.26	0.059	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Copper	10	B	0.52	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Iron	7600	B	10	4.0	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Lead	19		0.26	0.13	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Magnesium	110000	B	52	21	mg/Kg	☼	02/25/16 15:15	02/28/16 01:35	10
Manganese	310	B	0.52	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Nickel	7.5		0.52	0.14	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Potassium	500		26	4.3	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Selenium	0.41	J	0.52	0.26	mg/Kg	☼	02/25/16 15:15	02/29/16 13:01	1
Silver	<0.26		0.26	0.061	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Sodium	930	B	52	6.9	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Thallium	<0.52		0.52	0.26	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Vanadium	9.0		0.26	0.076	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Zinc	36		1.0	0.33	mg/Kg	☼	02/25/16 15:15	02/29/16 13:01	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.25	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:18	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 21:18	1
Boron	0.064	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:18	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-6

Client Sample ID: 3011-12-B01 (0-1)

Lab Sample ID: 500-107704-14

Date Collected: 02/17/16 14:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 91.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 21:18	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:18	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:18	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 21:18	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 21:18	1
Manganese	1.8		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:18	1
Nickel	0.013	J	0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:18	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 21:18	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:18	1
Zinc	0.19	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 21:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.14		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 05:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 21:08	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 21:08	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:45	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0088	mg/Kg	☼	02/23/16 15:15	02/24/16 11:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.98		0.200	0.200	SU			02/23/16 14:21	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-6

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

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.
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-6

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 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 #: 500-107704

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter														Preservative Key	
Project Name		Lab Project #		Parameter		Matrix														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 Location/State		Lab PM																		Comments	
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix															
			Date	Time																	
EE		1009341-0008-61					Voc	Svoc	Leakage	Leakage	Toluene	THC	PHG/Sol								
IL78																					
Kane County IL		50011864																			
S. Cooper		P. Wright																			
14		3011-12-1301 (01)	2/17/10	1425	2.5		X	X	X	X	X										

Turnaround Time Required (Business Days)

Requested Due Date: 1 Day 2 Days 5 Days 7 Days 10 Days 15 Days Other

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>[Signature]</u>	Company: <u>EA</u>	Date: <u>2/17/10</u>	Time: <u>1515</u>	Received By: <u>[Signature]</u>	Company: <u>EA</u>	Date: <u>2/17/10</u>	Time: <u>1515</u>
Relinquished By: <u>[Signature]</u>	Company: <u>EA</u>	Date: <u>2/17/10</u>	Time: <u>1645</u>	Received By: <u>[Signature]</u>	Company: <u>EA-CST</u>	Date: <u>2/18/10</u>	Time: <u>0730</u>
Relinquished By: _____	Company: _____	Date: _____	Time: _____	Received By: _____	Company: _____	Date: _____	Time: _____

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

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

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107704-6

Login Number: 107704

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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: 500-107704-7
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
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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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-7

Job ID: 500-107704-7

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107704-7

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-324219: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: Due to internal standard (ISTD) area failures, a dilution was required for the following samples: 3011-13-B01 (0-1) (500-107704-15). The samples were initially analyzed without dilution. All internal standards were outside the QC limits. The samples were re-analyzed with similar results. No usable data was obtained from the un-diluted runs. The samples were re-analyzed at a dilution using the methanol extraction method. All internal standard areas were within limits in the diluted runs. Elevated reporting limits have been provided.

Method(s) 8260B: The laboratory control sample (LCS) for batch 324783 recovered outside control limits for the following analyte: Trichloroethene. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data has been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-13-B01 (0-1) (500-107704-15), 3011-13-B02 (0-1) (500-107704-16), (MB 500-324045/1-A), (500-107704-E-1-A), (500-107704-E-1-B MS) and (500-107704-E-1-C MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324448 and analytical batch 500-324695 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-7

Client Sample ID: 3011-13-B01 (0-1)

Lab Sample ID: 500-107704-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.11		0.053	0.021	mg/Kg	50	☼	8260B	Total/NA
Phenanthrene	0.10		0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.016	J	0.037	0.0062	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.21		0.037	0.0068	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.30		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.099		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.13		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.25		0.037	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.091		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.13		0.037	0.0071	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.085		0.037	0.0095	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.090		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.1		0.55	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	26		0.55	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.24		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	11		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.043	J	0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	210000	B	110	35	mg/Kg	10	☼	6010B	Total/NA
Chromium	5.7	B	0.55	0.095	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.9		0.27	0.062	mg/Kg	1	☼	6010B	Total/NA
Copper	7.4	B	0.55	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	5800	B	11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	16		0.27	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	120000	B	55	22	mg/Kg	10	☼	6010B	Total/NA
Manganese	300	B	0.55	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	6.4		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	530		27	4.5	mg/Kg	1	☼	6010B	Total/NA
Sodium	1200	B	55	7.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	9.0		0.27	0.080	mg/Kg	1	☼	6010B	Total/NA
Zinc	23		1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.43	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.087	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.0		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.053	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.049		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.47		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-7

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107704-15	3011-13-B01 (0-1)	Solid	02/17/16 14:35	02/18/16 07:30

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-7

Client Sample ID: 3011-13-B01 (0-1)

Lab Sample ID: 500-107704-15

Date Collected: 02/17/16 14:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.26		0.26	0.091	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Benzene	<0.013		0.013	0.0077	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Bromodichloromethane	<0.053		0.053	0.020	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Bromoform	<0.053		0.053	0.026	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Bromomethane	<0.11		0.11	0.042	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
2-Butanone (MEK)	<0.26		0.26	0.11	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Carbon disulfide	<0.11		0.11	0.042	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Carbon tetrachloride	<0.053		0.053	0.020	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Chlorobenzene	<0.053		0.053	0.020	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Chloroethane	<0.053		0.053	0.027	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Chloroform	<0.053		0.053	0.020	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Chloromethane	<0.053		0.053	0.017	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
cis-1,2-Dichloroethene	<0.053		0.053	0.022	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
cis-1,3-Dichloropropene	<0.053		0.053	0.022	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Dibromochloromethane	<0.053		0.053	0.026	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
1,1-Dichloroethane	<0.053		0.053	0.022	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
1,2-Dichloroethane	<0.053		0.053	0.021	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
1,1-Dichloroethene	<0.053		0.053	0.021	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
1,2-Dichloropropane	<0.053		0.053	0.023	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
1,3-Dichloropropene, Total	<0.053		0.053	0.022	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Ethylbenzene	<0.013		0.013	0.0097	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
2-Hexanone	<0.26		0.26	0.082	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Methylene Chloride	<0.26		0.26	0.086	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
4-Methyl-2-pentanone (MIBK)	<0.26		0.26	0.11	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Methyl tert-butyl ether	0.11		0.053	0.021	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Styrene	<0.053		0.053	0.020	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
1,1,2,2-Tetrachloroethane	<0.053		0.053	0.021	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Tetrachloroethene	<0.053		0.053	0.020	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Toluene	<0.013		0.013	0.0078	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
trans-1,2-Dichloroethene	<0.053		0.053	0.019	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
trans-1,3-Dichloropropene	<0.053		0.053	0.019	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
1,1,1-Trichloroethane	<0.053		0.053	0.020	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
1,1,2-Trichloroethane	<0.053		0.053	0.019	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Trichloroethene	<0.026		0.026	0.0087	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Vinyl acetate	<0.11		0.11	0.048	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Vinyl chloride	<0.026		0.026	0.014	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Xylenes, Total	<0.026		0.026	0.012	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		75 - 120	02/17/16 14:35	02/29/16 14:56	50
Dibromofluoromethane	101		75 - 120	02/17/16 14:35	02/29/16 14:56	50
1,2-Dichloroethane-d4 (Surr)	97		75 - 125	02/17/16 14:35	02/29/16 14:56	50
Toluene-d8 (Surr)	95		75 - 120	02/17/16 14:35	02/29/16 14:56	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.055	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
1,3-Dichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-7

Client Sample ID: 3011-13-B01 (0-1)

Lab Sample ID: 500-107704-15

Date Collected: 02/17/16 14:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Isophorone	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2,4-Dichlorophenol	<0.37		0.37	0.087	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2-Methylnaphthalene	<0.037		0.037	0.0068	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2,6-Dinitrotoluene	<0.19		0.19	0.072	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Acenaphthene	<0.037		0.037	0.0066	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Diethyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
N-Nitrosodiphenylamine	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.30	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Phenanthrene	0.10		0.037	0.0051	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Anthracene	0.016 J		0.037	0.0062	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Carbazole	<0.19		0.19	0.092	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Fluoranthene	0.21		0.037	0.0068	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Pyrene	0.30		0.037	0.0073	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Benzo[a]anthracene	0.099		0.037	0.0050	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-7

Client Sample ID: 3011-13-B01 (0-1)

Lab Sample ID: 500-107704-15

Date Collected: 02/17/16 14:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.13		0.037	0.010	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.067	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Benzo[b]fluoranthene	0.25		0.037	0.0080	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Benzo[k]fluoranthene	0.091		0.037	0.011	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Benzo[a]pyrene	0.13		0.037	0.0071	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Indeno[1,2,3-cd]pyrene	0.085		0.037	0.0095	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0071	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Benzo[g,h,i]perylene	0.090		0.037	0.012	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
3 & 4 Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	85		25 - 110	02/23/16 07:20	02/29/16 19:55	1
Phenol-d5	88		31 - 110	02/23/16 07:20	02/29/16 19:55	1
Nitrobenzene-d5	80		25 - 115	02/23/16 07:20	02/29/16 19:55	1
2-Fluorobiphenyl	79		25 - 119	02/23/16 07:20	02/29/16 19:55	1
2,4,6-Tribromophenol	101		35 - 137	02/23/16 07:20	02/29/16 19:55	1
Terphenyl-d14	179	X	36 - 134	02/23/16 07:20	02/29/16 19:55	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	☼	02/25/16 15:15	02/26/16 22:10	1
Arsenic	2.1		0.55	0.25	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Barium	26		0.55	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Beryllium	0.24		0.22	0.048	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Boron	11		2.7	0.38	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Cadmium	0.043	J	0.11	0.032	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Calcium	210000	B	110	35	mg/Kg	☼	02/25/16 15:15	02/28/16 01:40	10
Chromium	5.7	B	0.55	0.095	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Cobalt	2.9		0.27	0.062	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Copper	7.4	B	0.55	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Iron	5800	B	11	4.2	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Lead	16		0.27	0.14	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Magnesium	120000	B	55	22	mg/Kg	☼	02/25/16 15:15	02/28/16 01:40	10
Manganese	300	B	0.55	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Nickel	6.4		0.55	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Potassium	530		27	4.5	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Selenium	<0.55		0.55	0.27	mg/Kg	☼	02/25/16 15:15	02/29/16 13:06	1
Silver	<0.27		0.27	0.064	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Sodium	1200	B	55	7.3	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Vanadium	9.0		0.27	0.080	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Zinc	23		1.1	0.35	mg/Kg	☼	02/25/16 15:15	02/29/16 13:06	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.43	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:25	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 21:25	1
Boron	0.087	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:25	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-7

Client Sample ID: 3011-13-B01 (0-1)

Lab Sample ID: 500-107704-15

Date Collected: 02/17/16 14:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 21:25	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:25	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:25	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 21:25	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 21:25	1
Manganese	1.0		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:25	1
Nickel	0.011	J	0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:25	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 21:25	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:25	1
Zinc	0.053	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 21:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.049		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 05:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 21:12	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 21:12	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:51	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0091	mg/Kg	☼	02/23/16 15:15	02/24/16 11:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.47		0.200	0.200	SU			02/23/16 14:26	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-7

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

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.
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-7

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 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 #: 500-107704
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative							Preservative Key 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		Lab Project #		Parameter								
Project Location/State		Lab PM										
Sampler												
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOC	SVOC	Total TAC	Total Sp. TAC	Pb/Cd/As	Comments
			Date	Time								
15		3011-B-1301 (-1)	2/17/16	1435	2	S	X	X	X	X	X	
16		3011-B-1302 (01)	2/17/16	1440	2	S	X	X	X	X	X	
<i>[Large handwritten signature and date 2/17/16]</i>												

Turnaround Time Required (Business Days)

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

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	Company	Date	Time	Received By	Company	Date	Time
<i>[Signature]</i>	EE	2-17-16	1515	<i>[Signature]</i>	TA	2/17/16	1515
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
<i>[Signature]</i>	TA	2/17/16	1645	<i>[Signature]</i>	TA-CPT	2/18/16	0730
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

Matrix Key

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

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107704-7

Login Number: 107704

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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: 500-107704-8
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 1:03:21 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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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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-8

Job ID: 500-107704-8

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107704-8

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: The laboratory control sample duplicate (LCSD) for batch 500-324350 recovered outside control limits for the following analyte: 1,2-Dichloropropane. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: (MB 500-324045/1-A), (500-107704-E-1-A), (500-107704-E-1-B MS) and (500-107704-E-1-C MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324448 and analytical batch 500-324695 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-8

Client Sample ID: 3011-14-B01 (0-1)

Lab Sample ID: 500-107704-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0058	J	0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.0078	J	0.036	0.0065	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0070	J	0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.13		0.036	0.0050	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.028	J	0.036	0.0060	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.27		0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.26		0.036	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.11		0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.13		0.036	0.0098	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.21		0.036	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.072		0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.12		0.036	0.0070	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.057		0.036	0.0093	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.062		0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.7		0.53	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	28		0.53	0.097	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.22		0.21	0.046	mg/Kg	1	☼	6010B	Total/NA
Boron	7.7		2.7	0.37	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12		0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	17000	B	110	34	mg/Kg	10	☼	6010B	Total/NA
Chromium	12	B	0.53	0.091	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.4		0.27	0.060	mg/Kg	1	☼	6010B	Total/NA
Copper	9.4	B	0.53	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	7600	B	11	4.1	mg/Kg	1	☼	6010B	Total/NA
Lead	67		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	97000	B	53	22	mg/Kg	10	☼	6010B	Total/NA
Manganese	380	B	0.53	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.9		0.53	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	550		27	4.3	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.41	J	0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Sodium	850	B	53	7.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.27	0.078	mg/Kg	1	☼	6010B	Total/NA
Zinc	39		1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.37	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.062	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.0		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.47	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.39		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.0095	J	0.018	0.0093	mg/Kg	1	☼	7471B	Total/NA
pH	8.87		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-8

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107704-17	3011-14-B01 (0-1)	Solid	02/17/16 09:20	02/18/16 07:30

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-8

Client Sample ID: 3011-14-B01 (0-1)

Lab Sample ID: 500-107704-17

Date Collected: 02/17/16 09:20

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0037	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Benzene	<0.0047		0.0047	0.0010	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Bromodichloromethane	<0.0047		0.0047	0.00080	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Bromoform	<0.0047		0.0047	0.00096	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Bromomethane	<0.0047		0.0047	0.0017	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
2-Butanone (MEK)	<0.0047		0.0047	0.0017	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Carbon disulfide	<0.0047		0.0047	0.0017	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Carbon tetrachloride	<0.0047		0.0047	0.0010	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Chlorobenzene	<0.0047		0.0047	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Chloroethane	<0.0047		0.0047	0.0020	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Chloroform	<0.0047		0.0047	0.00092	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Chloromethane	<0.0047		0.0047	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
cis-1,2-Dichloroethene	<0.0047		0.0047	0.00096	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
cis-1,3-Dichloropropene	<0.0047		0.0047	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Dibromochloromethane	<0.0047		0.0047	0.00054	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
1,1-Dichloroethane	<0.0047		0.0047	0.00097	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
1,2-Dichloroethane	<0.0047		0.0047	0.00070	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
1,1-Dichloroethene	<0.0047		0.0047	0.0017	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
1,2-Dichloropropane	<0.0047	*	0.0047	0.0012	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
1,3-Dichloropropene, Total	<0.0047		0.0047	0.0013	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Ethylbenzene	<0.0047		0.0047	0.0012	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Methylene Chloride	<0.0047		0.0047	0.0036	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.00097	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Methyl tert-butyl ether	<0.0047		0.0047	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Styrene	<0.0047		0.0047	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
1,1,2,2-Tetrachloroethane	<0.0047		0.0047	0.00075	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Tetrachloroethene	<0.0047		0.0047	0.00098	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Toluene	<0.0047		0.0047	0.0016	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
trans-1,2-Dichloroethene	<0.0047		0.0047	0.0012	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
trans-1,3-Dichloropropene	<0.0047		0.0047	0.0013	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
1,1,1-Trichloroethane	<0.0047		0.0047	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
1,1,2-Trichloroethane	<0.0047		0.0047	0.00091	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Trichloroethene	<0.0047		0.0047	0.0013	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Vinyl acetate	<0.0047		0.0047	0.0013	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Vinyl chloride	<0.0047		0.0047	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Xylenes, Total	<0.0094		0.0094	0.0017	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 122	02/18/16 08:10	02/25/16 17:46	1
Dibromofluoromethane	95		75 - 120	02/18/16 08:10	02/25/16 17:46	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 134	02/18/16 08:10	02/25/16 17:46	1
Toluene-d8 (Surr)	104		75 - 122	02/18/16 08:10	02/25/16 17:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.080	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-8

Client Sample ID: 3011-14-B01 (0-1)

Lab Sample ID: 500-107704-17

Date Collected: 02/17/16 09:20

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Naphthalene	<0.036		0.036	0.0055	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2-Methylnaphthalene	<0.036		0.036	0.0066	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2,4-Dinitrophenol	<0.73		0.73	0.63	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Acenaphthylene	0.0058	J	0.036	0.0048	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Acenaphthene	0.0078	J	0.036	0.0065	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Fluorene	0.0070	J	0.036	0.0051	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Phenanthrene	0.13		0.036	0.0050	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Anthracene	0.028	J	0.036	0.0060	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Carbazole	<0.18		0.18	0.090	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Fluoranthene	0.27		0.036	0.0067	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Pyrene	0.26		0.036	0.0072	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Benzo[a]anthracene	0.11		0.036	0.0048	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-8

Client Sample ID: 3011-14-B01 (0-1)

Lab Sample ID: 500-107704-17

Date Collected: 02/17/16 09:20

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.13		0.036	0.0098	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Benzo[b]fluoranthene	0.21		0.036	0.0078	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Benzo[k]fluoranthene	0.072		0.036	0.011	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Benzo[a]pyrene	0.12		0.036	0.0070	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Indeno[1,2,3-cd]pyrene	0.057		0.036	0.0093	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0070	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Benzo[g,h,i]perylene	0.062		0.036	0.012	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	82		25 - 110	02/23/16 07:20	02/29/16 14:44	1
Phenol-d5	81		31 - 110	02/23/16 07:20	02/29/16 14:44	1
Nitrobenzene-d5	79		25 - 115	02/23/16 07:20	02/29/16 14:44	1
2-Fluorobiphenyl	74		25 - 119	02/23/16 07:20	02/29/16 14:44	1
2,4,6-Tribromophenol	73		35 - 137	02/23/16 07:20	02/29/16 14:44	1
Terphenyl-d14	114		36 - 134	02/23/16 07:20	02/29/16 14:44	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Arsenic	2.7		0.53	0.25	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Barium	28		0.53	0.097	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Beryllium	0.22		0.21	0.046	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Boron	7.7		2.7	0.37	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Cadmium	0.12		0.11	0.031	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Calcium	170000	B	110	34	mg/Kg	☼	02/25/16 15:15	02/28/16 01:48	10
Chromium	12	B	0.53	0.091	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Cobalt	3.4		0.27	0.060	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Copper	9.4	B	0.53	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Iron	7600	B	11	4.1	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Lead	67		0.27	0.13	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Magnesium	97000	B	53	22	mg/Kg	☼	02/25/16 15:15	02/28/16 01:48	10
Manganese	380	B	0.53	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Nickel	7.9		0.53	0.14	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Potassium	550		27	4.3	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Selenium	0.41	J	0.53	0.26	mg/Kg	☼	02/25/16 15:15	02/29/16 13:17	1
Silver	<0.27		0.27	0.062	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Sodium	850	B	53	7.0	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Thallium	<0.53		0.53	0.26	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Vanadium	15		0.27	0.078	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Zinc	39		1.1	0.34	mg/Kg	☼	02/25/16 15:15	02/29/16 13:17	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.37	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:39	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 21:39	1
Boron	0.062	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:39	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-8

Client Sample ID: 3011-14-B01 (0-1)

Lab Sample ID: 500-107704-17

Date Collected: 02/17/16 09:20

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 21:39	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:39	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:39	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 21:39	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 21:39	1
Manganese	1.0		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:39	1
Nickel	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:39	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 21:39	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:39	1
Zinc	0.47	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 21:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.39		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 05:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 21:20	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 21:20	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:54	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0095	J	0.018	0.0093	mg/Kg	☼	02/23/16 15:15	02/24/16 11:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.87		0.200	0.200	SU			02/23/16 14:37	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-8

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

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.
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-8

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 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 #: 500-107704

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter														Preservative Key		
EE		1001341-0008-01																		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		Lab Project #																				
R38		50011864																				
Project Location/State		Lab PM																				
Kane County, IL		D. Weyant																				
Sample																						
S. Coupe																						
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix						Comments										
			Date	Time																		
17		3011-14-B01(01)	2/17/16	0920	2	S	VOC	S VOC	Talk the	Work	Recip/spc	for units	P/H/g Solids									

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>[Signature]</u>	Company: <u>SC</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>
Relinquished By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1645</u>	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/18/16</u>	Time: <u>0730</u>
Relinquished By: _____	Company: _____	Date: _____	Time: _____	Received By: _____	Company: _____	Date: _____	Time: _____

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: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107704-8

Login Number: 107704

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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: 500-107704-9
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 1:04:01 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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results through
TotalAccess

Have a Question?



Visit us at:
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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Job ID: 500-107704-9

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107704-9

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-324219: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-15-B01 (0-1)D (500-107704-19), (MB 500-324045/1-A), (500-107704-E-1-A), (500-107704-E-1-B MS) and (500-107704-E-1-C MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324448 and analytical batch 500-324695 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)

Lab Sample ID: 500-107704-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.088		0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.016	J	0.039	0.0066	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.18		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.20		0.039	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.078		0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.099		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phtalate	0.48		0.20	0.072	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.16		0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.081		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.090		0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.050		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.062		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.0		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	25		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.32		0.23	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	7.6		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.13		0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	140000	B	120	38	mg/Kg	10	☼	6010B	Total/NA
Chromium	9.3	B	0.58	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.8		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	11	B	0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	8400	B	12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	74		0.29	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	81000	B	58	24	mg/Kg	10	☼	6010B	Total/NA
Manganese	340	B	0.58	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.2		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	560		29	4.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.44	J	0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	690	B	58	7.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	56		1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.27	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.083	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.40	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.24		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.017	J	0.018	0.0095	mg/Kg	1	☼	7471B	Total/NA
pH	8.35		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-15-B01 (0-1)D

Lab Sample ID: 500-107704-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	0.0071	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.12		0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.022	J	0.039	0.0065	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.19		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.24		0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.078		0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.11		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.19		0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)D (Continued)

Lab Sample ID: 500-107704-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[k]fluoranthene	0.068		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.10		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.055		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.070		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.4		0.60	0.28	mg/Kg	1	☼	6010B	Total/NA
Barium	43		0.60	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.35		0.24	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	7.5		3.0	0.42	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17		0.12	0.035	mg/Kg	1	☼	6010B	Total/NA
Calcium	130000	B	120	39	mg/Kg	10	☼	6010B	Total/NA
Chromium	14	B	0.60	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.3		0.30	0.068	mg/Kg	1	☼	6010B	Total/NA
Copper	18	B	0.60	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	17000	B	12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	84		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	60000	B	6.0	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	420	B	0.60	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	15		0.60	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	660		30	4.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.52	J	0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Sodium	820	B	60	7.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.30	0.088	mg/Kg	1	☼	6010B	Total/NA
Zinc	55		1.2	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.070	J	0.50	0.050	mg/L	1		6010B	TCLP
Lead	0.0076		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	2.5		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.42	J B	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.11		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.29		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.019		0.019	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.41		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107704-18	3011-15-B01 (0-1)	Solid	02/17/16 09:10	02/18/16 07:30
500-107704-19	3011-15-B01 (0-1)D	Solid	02/17/16 09:10	02/18/16 07:30

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)

Lab Sample ID: 500-107704-18

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 80.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.023		0.023	0.0044	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Benzene	<0.0057		0.0057	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Bromodichloromethane	<0.0057		0.0057	0.00096	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Bromoform	<0.0057		0.0057	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Bromomethane	<0.0057 *		0.0057	0.0021	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
2-Butanone (MEK)	<0.0057		0.0057	0.0020	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Carbon disulfide	<0.0057		0.0057	0.0021	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Carbon tetrachloride	<0.0057		0.0057	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Chlorobenzene	<0.0057		0.0057	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Chloroethane	<0.0057		0.0057	0.0024	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Chloroform	<0.0057		0.0057	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Chloromethane	<0.0057		0.0057	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
cis-1,2-Dichloroethene	<0.0057		0.0057	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
cis-1,3-Dichloropropene	<0.0057		0.0057	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Dibromochloromethane	<0.0057		0.0057	0.00065	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,1-Dichloroethane	<0.0057		0.0057	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,2-Dichloroethane	<0.0057		0.0057	0.00084	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,1-Dichloroethene	<0.0057		0.0057	0.0021	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,2-Dichloropropane	<0.0057		0.0057	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,3-Dichloropropane, Total	<0.0057		0.0057	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Ethylbenzene	<0.0057		0.0057	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
2-Hexanone	<0.0057		0.0057	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Methylene Chloride	<0.0057		0.0057	0.0043	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
4-Methyl-2-pentanone (MIBK)	<0.0057		0.0057	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Methyl tert-butyl ether	<0.0057		0.0057	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Styrene	<0.0057		0.0057	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,1,2,2-Tetrachloroethane	<0.0057		0.0057	0.00090	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Tetrachloroethene	<0.0057		0.0057	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Toluene	<0.0057		0.0057	0.0020	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
trans-1,2-Dichloroethene	<0.0057		0.0057	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
trans-1,3-Dichloropropene	<0.0057		0.0057	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,1,1-Trichloroethane	<0.0057		0.0057	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,1,2-Trichloroethane	<0.0057		0.0057	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Trichloroethene	<0.0057		0.0057	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Vinyl acetate	<0.0057		0.0057	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Vinyl chloride	<0.0057		0.0057	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Xylenes, Total	<0.011		0.011	0.0021	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 122	02/18/16 08:10	02/24/16 17:10	1
Dibromofluoromethane	92		75 - 120	02/18/16 08:10	02/24/16 17:10	1
1,2-Dichloroethane-d4 (Surr)	81		70 - 134	02/18/16 08:10	02/24/16 17:10	1
Toluene-d8 (Surr)	106		75 - 122	02/18/16 08:10	02/24/16 17:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)

Lab Sample ID: 500-107704-18

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 80.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2-Methylnaphthalene	<0.039		0.039	0.0073	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2-Nitrophenol	<0.39		0.39	0.094	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Pentachlorophenol	<0.80		0.80	0.63	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Phenanthrene	0.088		0.039	0.0055	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Anthracene	0.016 J		0.039	0.0066	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Fluoranthene	0.18		0.039	0.0073	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Pyrene	0.20		0.039	0.0079	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Benzo[a]anthracene	0.078		0.039	0.0053	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)

Lab Sample ID: 500-107704-18

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 80.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.099		0.039	0.011	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Bis(2-ethylhexyl) phthalate	0.48		0.20	0.072	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Benzo[b]fluoranthene	0.16		0.039	0.0085	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Benzo[k]fluoranthene	0.081		0.039	0.012	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Benzo[a]pyrene	0.090		0.039	0.0077	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Indeno[1,2,3-cd]pyrene	0.050		0.039	0.010	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Benzo[g,h,i]perylene	0.062		0.039	0.013	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	78		25 - 110	02/23/16 07:20	02/29/16 15:12	1
Phenol-d5	74		31 - 110	02/23/16 07:20	02/29/16 15:12	1
Nitrobenzene-d5	74		25 - 115	02/23/16 07:20	02/29/16 15:12	1
2-Fluorobiphenyl	68		25 - 119	02/23/16 07:20	02/29/16 15:12	1
2,4,6-Tribromophenol	67		35 - 137	02/23/16 07:20	02/29/16 15:12	1
Terphenyl-d14	125		36 - 134	02/23/16 07:20	02/29/16 15:12	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	☼	02/25/16 15:15	02/26/16 22:26	1
Arsenic	3.0		0.58	0.27	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Barium	25		0.58	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Beryllium	0.32		0.23	0.051	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Boron	7.6		2.9	0.41	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Cadmium	0.13		0.12	0.034	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Calcium	140000	B	120	38	mg/Kg	☼	02/25/16 15:15	02/28/16 01:52	10
Chromium	9.3	B	0.58	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Cobalt	3.8		0.29	0.066	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Copper	11	B	0.58	0.13	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Iron	8400	B	12	4.5	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Lead	74		0.29	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Magnesium	81000	B	58	24	mg/Kg	☼	02/25/16 15:15	02/28/16 01:52	10
Manganese	340	B	0.58	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Nickel	9.2		0.58	0.16	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Potassium	560		29	4.8	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Selenium	0.44	J	0.58	0.29	mg/Kg	☼	02/25/16 15:15	02/29/16 13:22	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Sodium	690	B	58	7.7	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Vanadium	12		0.29	0.085	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Zinc	56		1.2	0.37	mg/Kg	☼	02/25/16 15:15	02/29/16 13:22	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.27	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:45	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 21:45	1
Boron	0.083	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)

Lab Sample ID: 500-107704-18

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 80.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 21:45	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:45	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:45	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 21:45	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 21:45	1
Manganese	1.2		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:45	1
Nickel	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:45	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 21:45	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:45	1
Zinc	0.40	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 21:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.24		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 05:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 21:24	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 21:24	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:56	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	J	0.018	0.0095	mg/Kg	☼	02/23/16 15:15	02/24/16 12:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.35		0.200	0.200	SU			02/23/16 14:42	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)D

Lab Sample ID: 500-107704-19

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 81.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0036	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Benzene	<0.0046		0.0046	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Bromodichloromethane	<0.0046		0.0046	0.00078	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Bromoform	<0.0046		0.0046	0.00095	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Bromomethane	<0.0046	*	0.0046	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
2-Butanone (MEK)	<0.0046		0.0046	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Carbon disulfide	<0.0046		0.0046	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Carbon tetrachloride	<0.0046		0.0046	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Chlorobenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Chloroethane	<0.0046		0.0046	0.0020	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Chloroform	<0.0046		0.0046	0.00091	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Chloromethane	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
cis-1,2-Dichloroethene	<0.0046		0.0046	0.00095	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
cis-1,3-Dichloropropene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Dibromochloromethane	<0.0046		0.0046	0.00053	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,1-Dichloroethane	<0.0046		0.0046	0.00096	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,2-Dichloroethane	<0.0046		0.0046	0.00069	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,1-Dichloroethene	<0.0046		0.0046	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,2-Dichloropropane	<0.0046		0.0046	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,3-Dichloropropane, Total	<0.0046		0.0046	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Ethylbenzene	<0.0046		0.0046	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Methylene Chloride	<0.0046		0.0046	0.0035	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.00096	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Methyl tert-butyl ether	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Styrene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,1,2,2-Tetrachloroethane	<0.0046		0.0046	0.00074	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Tetrachloroethene	<0.0046		0.0046	0.00097	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Toluene	<0.0046		0.0046	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
trans-1,2-Dichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
trans-1,3-Dichloropropene	<0.0046		0.0046	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,1,1-Trichloroethane	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,1,2-Trichloroethane	<0.0046		0.0046	0.00090	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Trichloroethene	<0.0046		0.0046	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Vinyl acetate	<0.0046		0.0046	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Vinyl chloride	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Xylenes, Total	<0.0093		0.0093	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 122	02/18/16 08:10	02/24/16 17:35	1
Dibromofluoromethane	95		75 - 120	02/18/16 08:10	02/24/16 17:35	1
1,2-Dichloroethane-d4 (Surr)	82		70 - 134	02/18/16 08:10	02/24/16 17:35	1
Toluene-d8 (Surr)	107		75 - 122	02/18/16 08:10	02/24/16 17:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.087	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)D

Lab Sample ID: 500-107704-19

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 81.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Fluorene	0.0071	J	0.039	0.0055	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Phenanthrene	0.12		0.039	0.0055	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Anthracene	0.022	J	0.039	0.0065	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Fluoranthene	0.19		0.039	0.0073	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Pyrene	0.24		0.039	0.0078	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Benzo[a]anthracene	0.078		0.039	0.0053	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)D

Lab Sample ID: 500-107704-19

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 81.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.11		0.039	0.011	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Benzo[b]fluoranthene	0.19		0.039	0.0084	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Benzo[k]fluoranthene	0.068		0.039	0.012	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Benzo[a]pyrene	0.10		0.039	0.0076	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Indeno[1,2,3-cd]pyrene	0.055		0.039	0.010	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Benzo[g,h,i]perylene	0.070		0.039	0.013	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	92		25 - 110	02/23/16 07:20	02/29/16 19:27	1
Phenol-d5	92		31 - 110	02/23/16 07:20	02/29/16 19:27	1
Nitrobenzene-d5	94		25 - 115	02/23/16 07:20	02/29/16 19:27	1
2-Fluorobiphenyl	85		25 - 119	02/23/16 07:20	02/29/16 19:27	1
2,4,6-Tribromophenol	97		35 - 137	02/23/16 07:20	02/29/16 19:27	1
Terphenyl-d14	167	X	36 - 134	02/23/16 07:20	02/29/16 19:27	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	☼	02/25/16 15:15	02/26/16 22:31	1
Arsenic	4.4		0.60	0.28	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Barium	43		0.60	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Beryllium	0.35		0.24	0.052	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Boron	7.5		3.0	0.42	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Cadmium	0.17		0.12	0.035	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Calcium	130000	B	120	39	mg/Kg	☼	02/25/16 15:15	02/28/16 01:56	10
Chromium	14	B	0.60	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Cobalt	5.3		0.30	0.068	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Copper	18	B	0.60	0.13	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Iron	17000	B	12	4.6	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Lead	84		0.30	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Magnesium	60000	B	6.0	2.4	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Manganese	420	B	0.60	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Nickel	15		0.60	0.16	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Potassium	660		30	4.9	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Selenium	0.52	J	0.60	0.30	mg/Kg	☼	02/25/16 15:15	02/28/16 02:24	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Sodium	820	B	60	7.9	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Vanadium	14		0.30	0.088	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Zinc	55		1.2	0.38	mg/Kg	☼	02/25/16 15:15	02/28/16 02:24	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.31	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:52	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 21:52	1
Boron	0.070	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:52	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)D

Lab Sample ID: 500-107704-19

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 81.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 21:52	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:52	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:52	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 21:52	1
Lead	0.0076		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 21:52	1
Manganese	2.5		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:52	1
Nickel	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:52	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 21:52	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:52	1
Zinc	0.42	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 21:52	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.11		0.0075	0.0075	mg/L		02/25/16 08:29	02/28/16 05:54	1
Manganese	0.29		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 05:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 21:28	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 21:28	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:58	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019		0.019	0.010	mg/Kg	☼	02/23/16 15:15	02/24/16 12:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.41		0.200	0.200	SU			02/23/16 14:47	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

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.
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

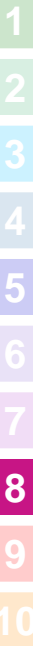
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.634.5200 Fax: 708.634.5211

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 #: 500-107704

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Preservative					Comments		
			Date	Time										
18		3011-15-B01(01)	2/17/16	0910	2	S	VOC	SVOE	Totl TA	metals	TOTAL TA	metals	P 4/9/16	
19		3011-15-B01(01) D	2/17/16	0910	2	I								
2/17-16														

- Preservative Key
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

Turnaround Time Required (Business Days)

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

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>[Signature]</u>	Company: <u>EC</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>
Relinquished By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1645</u>	Received By: <u>[Signature]</u>	Company: <u>TA-COIT</u>	Date: <u>2/18/16</u>	Time: <u>0730</u>
Relinquished By: _____	Company: _____	Date: _____	Time: _____	Received By: _____	Company: _____	Date: _____	Time: _____

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

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

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107704-9

Login Number: 107704

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 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: FAP 347 (IL Route 38) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
49W 227 IL 38 ISGS #3011-12 (Farmstead)

City: _____ State: IL Zip Code: 60151

County: Kane Township: Kaneville

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

Latitude: 41.89429224 Longitude: -88.5705414
(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: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: 60196-1096 Phone: 847-705-4159

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

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 an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 347 (IL Route 38)

Latitude: 41.89429224 Longitude: -88.5705414

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 appropriately located 35 Ill. Adm. Code 1100.610(a):

Location 3011-12-B01 was sampled within the construction zone adjacent to ISGS #3011-12 (Farmstead). Refer to PSI Report for ISGS #3011-12 (Farmstead) including Table 4-4, and Figures 4-2A&B.

- 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]:

See attached data summary table and associated laboratory data package J107704-6.

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

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

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

Company Name: Ecology and Environment, Inc.
 Street Address: 33 West Monroe Street
 City: Chicago State: IL Zip Code: 60603
 Phone: 312-578-9243
 Neil J. Brown

Printed Name:

Neil J. Brown

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

3/17/16

Date:



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




Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A

Key to Data Tables

- MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

Criteria Qualifiers and Shading

- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-12 (Farmstead)	Comparison Criteria			
BORING	3011-12-B01	MACs			TACO
SAMPLE	3011-12-B01 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.98				
VOCs (None Detected)					
SVOCs (mg/kg)					
Anthracene	0.015 J	12,000	--	--	--
Benzo[a]anthracene	0.09	0.9	1.8	1.1	--
Benzo[a]pyrene	0.12 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.19	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.15	--	--	--	--
Benzo[k]fluoranthene	0.084	9	--	--	--
Chrysene	0.12	88	--	--	--
Fluoranthene	0.11	3,100	--	--	--
Indeno[1,2,3-cd]pyrene	0.11	0.9	1.6	0.9	--
Phenanthrene	0.073	--	--	--	--
Pyrene	0.3	2,300	--	--	--
Inorganics (mg/kg)					
Arsenic	1.9	11.3	13	--	--
Barium	21	1,500	--	--	--
Beryllium	0.19 J	22	--	--	--
Boron	8.4	40	--	--	--
Cadmium	0.34	5.2	--	--	--
Calcium	190,000	--	--	--	--
Chromium	9.6	21	--	--	--
Cobalt	2.7	20	--	--	--
Copper	10	2,900	--	--	--
Iron	7,600	15,000	15,900	--	--
Lead	19	107	--	--	--
Magnesium	110,000	325,000	--	--	--
Manganese	310	630	636	--	--
Nickel	7.5	100	--	--	--
Potassium	500	--	--	--	--
Selenium	0.41 J	1.3	--	--	--
Sodium	930	--	--	--	--
Vanadium	9	550	--	--	--
Zinc	36	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.25 J	--	--	--	2
Boron	0.064 J	--	--	--	2
Manganese	1.8 L	--	--	--	0.15
Nickel	0.013 J	--	--	--	0.1
SPLP Metals (mg/L)					
Manganese	0.14	--	--	--	0.15

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: 500-107704-6
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 1:02:32 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

Review your project
results through
TotalAccess

Have a Question?



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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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-6

Job ID: 500-107704-6

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107704-6

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-324219: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-12-B01 (0-1) (500-107704-14), (MB 500-324045/1-A), (500-107704-E-1-A), (500-107704-E-1-B MS) and (500-107704-E-1-C MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324448 and analytical batch 500-324695 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-6

Client Sample ID: 3011-12-B01 (0-1)

Lab Sample ID: 500-107704-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.073		0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.015	J	0.035	0.0059	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.11		0.035	0.0066	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.30		0.035	0.0070	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.090		0.035	0.0048	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.12		0.035	0.0097	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.19		0.035	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.084		0.035	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.12		0.035	0.0069	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.11		0.035	0.0092	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.15		0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Arsenic	1.9		0.52	0.24	mg/Kg	1	☼	6010B	Total/NA
Barium	21		0.52	0.095	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.19	J	0.21	0.045	mg/Kg	1	☼	6010B	Total/NA
Boron	8.4		2.6	0.36	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.34		0.10	0.030	mg/Kg	1	☼	6010B	Total/NA
Calcium	190000	B	100	34	mg/Kg	10	☼	6010B	Total/NA
Chromium	9.6	B	0.52	0.090	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.7		0.26	0.059	mg/Kg	1	☼	6010B	Total/NA
Copper	10	B	0.52	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	7600	B	10	4.0	mg/Kg	1	☼	6010B	Total/NA
Lead	19		0.26	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	110000	B	52	21	mg/Kg	10	☼	6010B	Total/NA
Manganese	310	B	0.52	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.5		0.52	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	500		26	4.3	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.41	J	0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Sodium	930	B	52	6.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	9.0		0.26	0.076	mg/Kg	1	☼	6010B	Total/NA
Zinc	36		1.0	0.33	mg/Kg	1	☼	6010B	Total/NA
Barium	0.25	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.064	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.8		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.19	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.14		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.98		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-6

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107704-14	3011-12-B01 (0-1)	Solid	02/17/16 14:25	02/18/16 07:30

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-6

Client Sample ID: 3011-12-B01 (0-1)

Lab Sample ID: 500-107704-14

Date Collected: 02/17/16 14:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 91.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.015		0.015	0.0029	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Benzene	<0.0037		0.0037	0.00082	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Bromodichloromethane	<0.0037		0.0037	0.00062	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Bromoform	<0.0037		0.0037	0.00075	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Bromomethane	<0.0037 *		0.0037	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
2-Butanone (MEK)	<0.0037		0.0037	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Carbon disulfide	<0.0037		0.0037	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Carbon tetrachloride	<0.0037		0.0037	0.00079	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Chlorobenzene	<0.0037		0.0037	0.00087	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Chloroethane	<0.0037		0.0037	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Chloroform	<0.0037		0.0037	0.00072	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Chloromethane	<0.0037		0.0037	0.00088	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
cis-1,2-Dichloroethene	<0.0037		0.0037	0.00075	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
cis-1,3-Dichloropropene	<0.0037		0.0037	0.00084	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Dibromochloromethane	<0.0037		0.0037	0.00042	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
1,1-Dichloroethane	<0.0037		0.0037	0.00076	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
1,2-Dichloroethane	<0.0037		0.0037	0.00055	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
1,1-Dichloroethene	<0.0037		0.0037	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
1,2-Dichloropropane	<0.0037		0.0037	0.00097	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
1,3-Dichloropropane, Total	<0.0037		0.0037	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Ethylbenzene	<0.0037		0.0037	0.00091	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
2-Hexanone	<0.0037		0.0037	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Methylene Chloride	<0.0037		0.0037	0.0028	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
4-Methyl-2-pentanone (MIBK)	<0.0037		0.0037	0.00076	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Methyl tert-butyl ether	<0.0037		0.0037	0.00087	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Styrene	<0.0037		0.0037	0.00086	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
1,1,2,2-Tetrachloroethane	<0.0037		0.0037	0.00059	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Tetrachloroethene	<0.0037		0.0037	0.00077	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Toluene	<0.0037		0.0037	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
trans-1,2-Dichloroethene	<0.0037		0.0037	0.00092	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
trans-1,3-Dichloropropene	<0.0037		0.0037	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
1,1,1-Trichloroethane	<0.0037		0.0037	0.00086	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
1,1,2-Trichloroethane	<0.0037		0.0037	0.00071	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Trichloroethene	<0.0037		0.0037	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Vinyl acetate	<0.0037		0.0037	0.00099	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Vinyl chloride	<0.0037		0.0037	0.00088	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1
Xylenes, Total	<0.0074		0.0074	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 15:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 122	02/18/16 08:10	02/24/16 15:27	1
Dibromofluoromethane	95		75 - 120	02/18/16 08:10	02/24/16 15:27	1
1,2-Dichloroethane-d4 (Surr)	82		70 - 134	02/18/16 08:10	02/24/16 15:27	1
Toluene-d8 (Surr)	106		75 - 122	02/18/16 08:10	02/24/16 15:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.079	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-6

Client Sample ID: 3011-12-B01 (0-1)

Lab Sample ID: 500-107704-14

Date Collected: 02/17/16 14:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 91.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
N-Nitrosodi-n-propylamine	<0.071		0.071	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2,4-Dichlorophenol	<0.35		0.35	0.084	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
4-Chloroaniline	<0.71		0.71	0.17	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2,4,5-Trichlorophenol	<0.35		0.35	0.081	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2-Methylnaphthalene	<0.035		0.035	0.0065	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2-Nitrophenol	<0.35		0.35	0.084	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Acenaphthylene	<0.035		0.035	0.0047	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Acenaphthene	<0.035		0.035	0.0064	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
4-Nitrophenol	<0.71		0.71	0.34	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Fluorene	<0.035		0.035	0.0050	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Hexachlorobenzene	<0.071		0.071	0.0082	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Pentachlorophenol	<0.71		0.71	0.57	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Phenanthrene	0.073		0.035	0.0049	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Anthracene	0.015 J		0.035	0.0059	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Carbazole	<0.18		0.18	0.088	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Fluoranthene	0.11		0.035	0.0066	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Pyrene	0.30		0.035	0.0070	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Benzo[a]anthracene	0.090		0.035	0.0048	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-6

Client Sample ID: 3011-12-B01 (0-1)

Lab Sample ID: 500-107704-14

Date Collected: 02/17/16 14:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 91.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.12		0.035	0.0097	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Benzo[b]fluoranthene	0.19		0.035	0.0076	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Benzo[k]fluoranthene	0.084		0.035	0.010	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Benzo[a]pyrene	0.12		0.035	0.0069	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Indeno[1,2,3-cd]pyrene	0.11		0.035	0.0092	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0068	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
Benzo[g,h,i]perylene	0.15		0.035	0.011	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 00:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	90		25 - 110	02/23/16 07:20	02/29/16 00:09	1
Phenol-d5	84		31 - 110	02/23/16 07:20	02/29/16 00:09	1
Nitrobenzene-d5	85		25 - 115	02/23/16 07:20	02/29/16 00:09	1
2-Fluorobiphenyl	92		25 - 119	02/23/16 07:20	02/29/16 00:09	1
2,4,6-Tribromophenol	73		35 - 137	02/23/16 07:20	02/29/16 00:09	1
Terphenyl-d14	212	X	36 - 134	02/23/16 07:20	02/29/16 00:09	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.22	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Arsenic	1.9		0.52	0.24	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Barium	21		0.52	0.095	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Beryllium	0.19	J	0.21	0.045	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Boron	8.4		2.6	0.36	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Cadmium	0.34		0.10	0.030	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Calcium	190000	B	100	34	mg/Kg	☼	02/25/16 15:15	02/28/16 01:35	10
Chromium	9.6	B	0.52	0.090	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Cobalt	2.7		0.26	0.059	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Copper	10	B	0.52	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Iron	7600	B	10	4.0	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Lead	19		0.26	0.13	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Magnesium	110000	B	52	21	mg/Kg	☼	02/25/16 15:15	02/28/16 01:35	10
Manganese	310	B	0.52	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Nickel	7.5		0.52	0.14	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Potassium	500		26	4.3	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Selenium	0.41	J	0.52	0.26	mg/Kg	☼	02/25/16 15:15	02/29/16 13:01	1
Silver	<0.26		0.26	0.061	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Sodium	930	B	52	6.9	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Thallium	<0.52		0.52	0.26	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Vanadium	9.0		0.26	0.076	mg/Kg	☼	02/25/16 15:15	02/26/16 22:05	1
Zinc	36		1.0	0.33	mg/Kg	☼	02/25/16 15:15	02/29/16 13:01	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.25	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:18	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 21:18	1
Boron	0.064	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:18	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-6

Client Sample ID: 3011-12-B01 (0-1)

Lab Sample ID: 500-107704-14

Date Collected: 02/17/16 14:25

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 91.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	02/25/16 08:27	02/26/16 21:18	1
Chromium	<0.025		0.025	0.010	mg/L	-	02/25/16 08:27	02/26/16 21:18	1
Cobalt	<0.025		0.025	0.010	mg/L	-	02/25/16 08:27	02/26/16 21:18	1
Iron	<0.40		0.40	0.20	mg/L	-	02/25/16 08:27	02/26/16 21:18	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	02/25/16 08:27	02/26/16 21:18	1
Manganese	1.8		0.025	0.010	mg/L	-	02/25/16 08:27	02/26/16 21:18	1
Nickel	0.013	J	0.025	0.010	mg/L	-	02/25/16 08:27	02/26/16 21:18	1
Selenium	<0.050		0.050	0.020	mg/L	-	02/25/16 08:27	02/26/16 21:18	1
Silver	<0.025		0.025	0.010	mg/L	-	02/25/16 08:27	02/26/16 21:18	1
Zinc	0.19	J B	0.50	0.020	mg/L	-	02/25/16 08:27	02/26/16 21:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.14		0.025	0.010	mg/L	-	02/25/16 08:29	02/28/16 05:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	02/25/16 08:27	02/25/16 21:08	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	02/25/16 08:27	02/25/16 21:08	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	02/24/16 14:15	02/25/16 10:45	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0088	mg/Kg	☼	02/23/16 15:15	02/24/16 11:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.98		0.200	0.200	SU	-		02/23/16 14:21	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-6

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

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.
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-6

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

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

Chain of Custody Record

Lab Job #: 500-107704

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments
Project Name	Project Location/State	Lab Project #	Lab PM	Parameter	Matrix	Matrix	Matrix	Matrix		
EE	Kane County IL	1009341-0008-01	P. Wright	Voc	Voc	Loth 70c	70c/90c	70c/90c	70c/90c	Preservative Key 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
Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Matrix	Matrix	Matrix	Comments
14		3011-12-1301 (01)	2/17/10	1425	25					
2/17/10										

Turnaround Time Required (Business Days) 10 Days 1 Day 2 Days 5 Days 7 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>[Signature]</u> Company: <u>EA</u> Date: <u>2/17/10</u> Time: <u>1315</u>	Received By: <u>[Signature]</u> Company: <u>EA</u> Date: <u>2/17/10</u> Time: <u>1515</u>	Lab Courier: <u>TA</u>
Relinquished By: <u>[Signature]</u> Company: <u>EA</u> Date: <u>2/17/10</u> Time: <u>1045</u>	Received By: <u>[Signature]</u> Company: <u>EA-CPT</u> Date: <u>2/18/10</u> Time: <u>0730</u>	Shipped: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: _____

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

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107704-6

Login Number: 107704

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 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: FAP 347 (IL Route 38) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
49W 073 IL 38 ISGS #3011-13 (Farmstead)

City: Maple Park State: IL Zip Code: 60151

County: Kane Township: Kaneville

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

Latitude: 41.894261 Longitude: -88.56714
(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: 890503001 BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: 60196-1096 Phone: 847-705-4159

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

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 an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 347 (IL Route 38)

Latitude: 41.894261 Longitude: -88.56714

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 appropriately located [35 Ill. Adm. Code 1100.610(a)]:

Location 3011-13-B01 was sampled within the construction zone adjacent to ISGS #3011-13 (Farmstead). Refer to PSI Report for ISGS #3011-13 (Farmstead) including Table 4-4, and Figures 4-3A&B.

- 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]:

See attached data summary table and associated laboratory data package J107704-7.

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

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

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

Company Name: Ecology and Environment, Inc.

Street Address: 33 West Monroe Street

City: Chicago State: IL Zip Code: 60603

Phone: 312-578-9243

Neil J. Brown

Printed Name:



3/17/16

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

Date:



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




Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A

Key to Data Tables

- MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

Criteria Qualifiers and Shading

- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-13 (Farmstead)	Comparison Criteria			
BORING	3011-13-B01	MACs			TACO
SAMPLE	3011-13-B01 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.47				
VOCs (mg/kg)					
Methyl tert-butyl ether	0.11	0.32	--	--	--
SVOCs (mg/kg)					
Acenaphthene	ND U	570	--	--	--
Acenaphthylene	ND U	--	--	--	--
Anthracene	0.016 J	12,000	--	--	--
Benzo[a]anthracene	0.099	0.9	1.8	1.1	--
Benzo[a]pyrene	0.13 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.25	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.09	--	--	--	--
Benzo[k]fluoranthene	0.091	9	--	--	--
Chrysene	0.13	88	--	--	--
Dibenzo(a,h)anthracene	ND U	0.09	0.42	0.2	--
Fluoranthene	0.21	3,100	--	--	--
Fluorene	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.085	0.9	1.6	0.9	--
Phenanthrene	0.1	--	--	--	--
Pyrene	0.3	2,300	--	--	--
Inorganics (mg/kg)					
Arsenic	2.1	11.3	13	--	--
Barium	26	1,500	--	--	--
Beryllium	0.24	22	--	--	--
Boron	11	40	--	--	--
Cadmium	0.043 J	5.2	--	--	--
Calcium	210,000	--	--	--	--
Chromium	5.7	21	--	--	--
Cobalt	2.9	20	--	--	--
Copper	7.4	2,900	--	--	--
Iron	5,800	15,000	15,900	--	--
Lead	16	107	--	--	--
Magnesium	120,000	325,000	--	--	--
Manganese	300	630	636	--	--
Nickel	6.4	100	--	--	--
Potassium	530	--	--	--	--
Sodium	1,200	--	--	--	--
Vanadium	9	550	--	--	--
Zinc	23	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.43 J	--	--	--	2
Boron	0.087 J	--	--	--	2
Manganese	1 L	--	--	--	0.15
Nickel	0.011 J	--	--	--	0.1
SPLP Metals (mg/L)					
Manganese	0.049	--	--	--	0.15

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: 500-107704-7
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 1:02:56 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

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-7

Job ID: 500-107704-7

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107704-7

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-324219: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: Due to internal standard (ISTD) area failures, a dilution was required for the following samples: 3011-13-B01 (0-1) (500-107704-15). The samples were initially analyzed without dilution. All internal standards were outside the QC limits. The samples were re-analyzed with similar results. No usable data was obtained from the un-diluted runs. The samples were re-analyzed at a dilution using the methanol extraction method. All internal standard areas were within limits in the diluted runs. Elevated reporting limits have been provided.

Method(s) 8260B: The laboratory control sample (LCS) for batch 324783 recovered outside control limits for the following analyte: Trichloroethene. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data has been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-13-B01 (0-1) (500-107704-15), 3011-13-B02 (0-1) (500-107704-16), (MB 500-324045/1-A), (500-107704-E-1-A), (500-107704-E-1-B MS) and (500-107704-E-1-C MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324448 and analytical batch 500-324695 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-7

Client Sample ID: 3011-13-B01 (0-1)

Lab Sample ID: 500-107704-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.11		0.053	0.021	mg/Kg	50	☼	8260B	Total/NA
Phenanthrene	0.10		0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.016	J	0.037	0.0062	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.21		0.037	0.0068	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.30		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.099		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.13		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.25		0.037	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.091		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.13		0.037	0.0071	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.085		0.037	0.0095	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.090		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.1		0.55	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	26		0.55	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.24		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	11		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.043	J	0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	210000	B	110	35	mg/Kg	10	☼	6010B	Total/NA
Chromium	5.7	B	0.55	0.095	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.9		0.27	0.062	mg/Kg	1	☼	6010B	Total/NA
Copper	7.4	B	0.55	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	5800	B	11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	16		0.27	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	120000	B	55	22	mg/Kg	10	☼	6010B	Total/NA
Manganese	300	B	0.55	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	6.4		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	530		27	4.5	mg/Kg	1	☼	6010B	Total/NA
Sodium	1200	B	55	7.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	9.0		0.27	0.080	mg/Kg	1	☼	6010B	Total/NA
Zinc	23		1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.43	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.087	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.0		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.053	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.049		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.47		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-7

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107704-15	3011-13-B01 (0-1)	Solid	02/17/16 14:35	02/18/16 07:30

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-7

Client Sample ID: 3011-13-B01 (0-1)

Lab Sample ID: 500-107704-15

Date Collected: 02/17/16 14:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.26		0.26	0.091	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Benzene	<0.013		0.013	0.0077	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Bromodichloromethane	<0.053		0.053	0.020	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Bromoform	<0.053		0.053	0.026	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Bromomethane	<0.11		0.11	0.042	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
2-Butanone (MEK)	<0.26		0.26	0.11	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Carbon disulfide	<0.11		0.11	0.042	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Carbon tetrachloride	<0.053		0.053	0.020	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Chlorobenzene	<0.053		0.053	0.020	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Chloroethane	<0.053		0.053	0.027	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Chloroform	<0.053		0.053	0.020	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Chloromethane	<0.053		0.053	0.017	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
cis-1,2-Dichloroethene	<0.053		0.053	0.022	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
cis-1,3-Dichloropropene	<0.053		0.053	0.022	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Dibromochloromethane	<0.053		0.053	0.026	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
1,1-Dichloroethane	<0.053		0.053	0.022	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
1,2-Dichloroethane	<0.053		0.053	0.021	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
1,1-Dichloroethene	<0.053		0.053	0.021	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
1,2-Dichloropropane	<0.053		0.053	0.023	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
1,3-Dichloropropene, Total	<0.053		0.053	0.022	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Ethylbenzene	<0.013		0.013	0.0097	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
2-Hexanone	<0.26		0.26	0.082	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Methylene Chloride	<0.26		0.26	0.086	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
4-Methyl-2-pentanone (MIBK)	<0.26		0.26	0.11	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Methyl tert-butyl ether	0.11		0.053	0.021	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Styrene	<0.053		0.053	0.020	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
1,1,2,2-Tetrachloroethane	<0.053		0.053	0.021	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Tetrachloroethene	<0.053		0.053	0.020	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Toluene	<0.013		0.013	0.0078	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
trans-1,2-Dichloroethene	<0.053		0.053	0.019	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
trans-1,3-Dichloropropene	<0.053		0.053	0.019	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
1,1,1-Trichloroethane	<0.053		0.053	0.020	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
1,1,2-Trichloroethane	<0.053		0.053	0.019	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Trichloroethene	<0.026		0.026	0.0087	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Vinyl acetate	<0.11		0.11	0.048	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Vinyl chloride	<0.026		0.026	0.014	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50
Xylenes, Total	<0.026		0.026	0.012	mg/Kg	☼	02/17/16 14:35	02/29/16 14:56	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		75 - 120	02/17/16 14:35	02/29/16 14:56	50
Dibromofluoromethane	101		75 - 120	02/17/16 14:35	02/29/16 14:56	50
1,2-Dichloroethane-d4 (Surr)	97		75 - 125	02/17/16 14:35	02/29/16 14:56	50
Toluene-d8 (Surr)	95		75 - 120	02/17/16 14:35	02/29/16 14:56	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.055	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
1,3-Dichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-7

Client Sample ID: 3011-13-B01 (0-1)

Lab Sample ID: 500-107704-15

Date Collected: 02/17/16 14:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Isophorone	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2,4-Dichlorophenol	<0.37		0.37	0.087	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2-Methylnaphthalene	<0.037		0.037	0.0068	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2,6-Dinitrotoluene	<0.19		0.19	0.072	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Acenaphthene	<0.037		0.037	0.0066	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Diethyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
N-Nitrosodiphenylamine	<0.19		0.19	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.30	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Phenanthrene	0.10		0.037	0.0051	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Anthracene	0.016 J		0.037	0.0062	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Carbazole	<0.19		0.19	0.092	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Fluoranthene	0.21		0.037	0.0068	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Pyrene	0.30		0.037	0.0073	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Benzo[a]anthracene	0.099		0.037	0.0050	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-7

Client Sample ID: 3011-13-B01 (0-1)

Lab Sample ID: 500-107704-15

Date Collected: 02/17/16 14:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.13		0.037	0.010	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.067	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Benzo[b]fluoranthene	0.25		0.037	0.0080	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Benzo[k]fluoranthene	0.091		0.037	0.011	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Benzo[a]pyrene	0.13		0.037	0.0071	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Indeno[1,2,3-cd]pyrene	0.085		0.037	0.0095	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0071	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
Benzo[g,h,i]perylene	0.090		0.037	0.012	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1
3 & 4 Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	02/23/16 07:20	02/29/16 19:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	85		25 - 110	02/23/16 07:20	02/29/16 19:55	1
Phenol-d5	88		31 - 110	02/23/16 07:20	02/29/16 19:55	1
Nitrobenzene-d5	80		25 - 115	02/23/16 07:20	02/29/16 19:55	1
2-Fluorobiphenyl	79		25 - 119	02/23/16 07:20	02/29/16 19:55	1
2,4,6-Tribromophenol	101		35 - 137	02/23/16 07:20	02/29/16 19:55	1
Terphenyl-d14	179	X	36 - 134	02/23/16 07:20	02/29/16 19:55	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	☼	02/25/16 15:15	02/26/16 22:10	1
Arsenic	2.1		0.55	0.25	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Barium	26		0.55	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Beryllium	0.24		0.22	0.048	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Boron	11		2.7	0.38	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Cadmium	0.043	J	0.11	0.032	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Calcium	210000	B	110	35	mg/Kg	☼	02/25/16 15:15	02/28/16 01:40	10
Chromium	5.7	B	0.55	0.095	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Cobalt	2.9		0.27	0.062	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Copper	7.4	B	0.55	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Iron	5800	B	11	4.2	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Lead	16		0.27	0.14	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Magnesium	120000	B	55	22	mg/Kg	☼	02/25/16 15:15	02/28/16 01:40	10
Manganese	300	B	0.55	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Nickel	6.4		0.55	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Potassium	530		27	4.5	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Selenium	<0.55		0.55	0.27	mg/Kg	☼	02/25/16 15:15	02/29/16 13:06	1
Silver	<0.27		0.27	0.064	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Sodium	1200	B	55	7.3	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Vanadium	9.0		0.27	0.080	mg/Kg	☼	02/25/16 15:15	02/26/16 22:10	1
Zinc	23		1.1	0.35	mg/Kg	☼	02/25/16 15:15	02/29/16 13:06	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.43	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:25	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 21:25	1
Boron	0.087	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:25	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-7

Client Sample ID: 3011-13-B01 (0-1)

Lab Sample ID: 500-107704-15

Date Collected: 02/17/16 14:35

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 21:25	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:25	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:25	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 21:25	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 21:25	1
Manganese	1.0		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:25	1
Nickel	0.011	J	0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:25	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 21:25	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:25	1
Zinc	0.053	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 21:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.049		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 05:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 21:12	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 21:12	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:51	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0091	mg/Kg	☼	02/23/16 15:15	02/24/16 11:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.47		0.200	0.200	SU			02/23/16 14:26	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-7

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

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.
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-7

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

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

Chain of Custody Record

Lab Job #: 500-107704

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative							Preservative Key 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		Lab Project #		Parameter								
Project Location/State		Lab PM										
Sampler												
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOC	SVOC	Total TAC	Total Sp. TAC	Pb/Cd/As	Comments
			Date	Time								
15		3011-B-1301 (-1)	2/17/16	1435	2	S	X	X	X	X	X	
16		3011-B-1302 (01)	2/17/16	1440	2	S	X	X	X	X	X	
_____ 2/17/16												

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 _____ Company <u>EE</u> Date <u>2-17-16</u> Time <u>15:15</u>	Received By _____ Company <u>TA</u> Date <u>2/17/16</u> Time <u>15:15</u>	Lab Courier <u>TA</u>
Relinquished By _____ Company <u>TA</u> Date <u>2/17/16</u> Time <u>16:45</u>	Received By _____ Company <u>TA-CART</u> Date <u>2/18/16</u> Time <u>07:30</u>	Shipped _____
Relinquished By _____ Company _____ Date _____ Time _____	Received By _____ Company _____ Date _____ Time _____	Hand Delivered _____

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

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107704-7

Login Number: 107704

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 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: FAP 347 (IL Route 38) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
49W 010-040 IL 38 ISGS #3011-14 (Residences)

City: Maple Park State: IL Zip Code: 60151

County: Kane Township: Virgil

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

Latitude: 41.89446917 Longitude: -88.56673198
(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: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: 60196-1096 Phone: 847-705-4159

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

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 an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 347 (IL Route 38)

Latitude: 41.89446917 Longitude: -88.56673198

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 appropriately located 35 Ill. Adm. Code 1100.610(a):

Location 3011-14-B01 and 3011-15-B01 were sampled within the construction zone adjacent to ISGS #3011-14 (Residences). Refer to PSI Report for ISGS #3011-14 (Residences) including Table 4-4, and Figures 4-3A&B.

- 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]:

See attached data summary table and associated laboratory data package J107704-8 and J107704-9.

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

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

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

Company Name: Ecology and Environment, Inc.
 Street Address: 33 West Monroe Street
 City: Chicago State: IL Zip Code: 60603
 Phone: 312-578-9243
 Neil J. Brown

Printed Name:

Neil J. Brown
 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

3/17/16
 Date:



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




Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A

Key to Data Tables

- MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

Criteria Qualifiers and Shading

- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-14 (Residences)	Comparison Criteria			
		MACs			TACO
BORING	3011-14-B01				
SAMPLE	3011-14-B01 (0-1)				
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.87	Most Stringent	Within an MSA	Within Chicago	SCGIER
VOCs (None Detected)					
SVOCs (mg/kg)					
Acenaphthene	0.0078 J	570	--	--	--
Acenaphthylene	0.0058 J	--	--	--	--
Anthracene	0.028 J	12,000	--	--	--
Benzo[a]anthracene	0.11	0.9	1.8	1.1	--
Benzo[a]pyrene	0.12 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.21	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.062	--	--	--	--
Benzo[k]fluoranthene	0.072	9	--	--	--
Chrysene	0.13	88	--	--	--
Fluoranthene	0.27	3,100	--	--	--
Fluorene	0.007 J	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.057	0.9	1.6	0.9	--
Phenanthrene	0.13	--	--	--	--
Pyrene	0.26	2,300	--	--	--
Inorganics (mg/kg)					
Arsenic	2.7	11.3	13	--	--
Barium	28	1,500	--	--	--
Beryllium	0.22	22	--	--	--
Boron	7.7	40	--	--	--
Cadmium	0.12	5.2	--	--	--
Calcium	170,000	--	--	--	--
Chromium	12	21	--	--	--
Cobalt	3.4	20	--	--	--
Copper	9.4	2,900	--	--	--
Iron	7,600	15,000	15,900	--	--
Lead	67	107	--	--	--
Magnesium	97,000	325,000	--	--	--
Manganese	380	630	636	--	--
Mercury	0.0095 J	0.89	--	--	--
Nickel	7.9	100	--	--	--
Potassium	550	--	--	--	--
Selenium	0.41 J	1.3	--	--	--
Sodium	850	--	--	--	--
Vanadium	15	550	--	--	--
Zinc	39	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.37 J	--	--	--	2
Boron	0.062 J	--	--	--	2
Manganese	1 L	--	--	--	0.15
Zinc	0.47 J	--	--	--	5
SPLP Metals (mg/L)					
Manganese	0.39 L	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-15 (Vacant Land)		Comparison Criteria			
BORING	3011-15-B01		MACs			TACO
SAMPLE	3011-15-B01 (0-1)	3011-15-B01 (0-1)D	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil				
DEPTH (feet)	0-1	0-1				
pH	8.35	8.41				
VOCs (None Detected)						
SVOCs (mg/kg)						
Anthracene	0.016 J	0.022 J	12,000	--	--	--
Benzo[a]anthracene	0.078	0.078	0.9	1.8	1.1	--
Benzo[a]pyrene	0.09	0.1 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.16	0.19	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.062	0.07	--	--	--	--
Benzo[k]fluoranthene	0.081	0.068	9	--	--	--
Bis(2-ethylhexyl) phthalate	0.48	ND U	46	--	--	--
Chrysene	0.099	0.11	88	--	--	--
Fluoranthene	0.18	0.19	3,100	--	--	--
Fluorene	ND U	0.0071 J	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.05	0.055	0.9	1.6	0.9	--
Phenanthrene	0.088	0.12	--	--	--	--
Pyrene	0.2	0.24	2,300	--	--	--
Inorganics (mg/kg)						
Arsenic	3	4.4	11.3	13	--	--
Barium	25	43	1,500	--	--	--
Beryllium	0.32	0.35	22	--	--	--
Boron	7.6	7.5	40	--	--	--
Cadmium	0.13	0.17	5.2	--	--	--
Calcium	140,000	130,000	--	--	--	--
Chromium	9.3	14	21	--	--	--
Cobalt	3.8	5.3	20	--	--	--
Copper	11	18	2,900	--	--	--
Iron	8,400	17,000 †m	15,000	15,900	--	--
Lead	74	84	107	--	--	--
Magnesium	81,000	60,000	325,000	--	--	--
Manganese	340	420	630	636	--	--
Mercury	0.017 J	0.019	0.89	--	--	--
Nickel	9.2	15	100	--	--	--
Potassium	560	660	--	--	--	--
Selenium	0.44 J	0.52 J	1.3	--	--	--
Sodium	690	820	--	--	--	--
Vanadium	12	14	550	--	--	--
Zinc	56	55	5,100	--	--	--
TCLP Metals (mg/L)						
Barium	0.27 J	0.31 J	--	--	--	2
Boron	0.083 J	0.07 J	--	--	--	2
Iron	ND U	ND U	--	--	--	5
Lead	ND U	0.0076 L	--	--	--	0.0075
Manganese	1.2 J L	2.5 J L	--	--	--	0.15
Zinc	0.4 J	0.42 J	--	--	--	5
SPLP Metals (mg/L)						
Lead	NA	0.11 L	--	--	--	0.0075
Manganese	0.24 L	0.29 L	--	--	--	0.15

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: 500-107704-8
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 1:03:21 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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-8

Job ID: 500-107704-8

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107704-8

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: The laboratory control sample duplicate (LCSD) for batch 500-324350 recovered outside control limits for the following analyte: 1,2-Dichloropropane. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: (MB 500-324045/1-A), (500-107704-E-1-A), (500-107704-E-1-B MS) and (500-107704-E-1-C MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324448 and analytical batch 500-324695 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-8

Client Sample ID: 3011-14-B01 (0-1)

Lab Sample ID: 500-107704-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0058	J	0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.0078	J	0.036	0.0065	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0070	J	0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.13		0.036	0.0050	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.028	J	0.036	0.0060	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.27		0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.26		0.036	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.11		0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.13		0.036	0.0098	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.21		0.036	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.072		0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.12		0.036	0.0070	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.057		0.036	0.0093	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.062		0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.7		0.53	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	28		0.53	0.097	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.22		0.21	0.046	mg/Kg	1	☼	6010B	Total/NA
Boron	7.7		2.7	0.37	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12		0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	17000	B	110	34	mg/Kg	10	☼	6010B	Total/NA
Chromium	12	B	0.53	0.091	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.4		0.27	0.060	mg/Kg	1	☼	6010B	Total/NA
Copper	9.4	B	0.53	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	7600	B	11	4.1	mg/Kg	1	☼	6010B	Total/NA
Lead	67		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	97000	B	53	22	mg/Kg	10	☼	6010B	Total/NA
Manganese	380	B	0.53	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.9		0.53	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	550		27	4.3	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.41	J	0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Sodium	850	B	53	7.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.27	0.078	mg/Kg	1	☼	6010B	Total/NA
Zinc	39		1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.37	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.062	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.0		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.47	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.39		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.0095	J	0.018	0.0093	mg/Kg	1	☼	7471B	Total/NA
pH	8.87		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-8

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107704-17	3011-14-B01 (0-1)	Solid	02/17/16 09:20	02/18/16 07:30

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-8

Client Sample ID: 3011-14-B01 (0-1)

Lab Sample ID: 500-107704-17

Date Collected: 02/17/16 09:20

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0037	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Benzene	<0.0047		0.0047	0.0010	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Bromodichloromethane	<0.0047		0.0047	0.00080	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Bromoform	<0.0047		0.0047	0.00096	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Bromomethane	<0.0047		0.0047	0.0017	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
2-Butanone (MEK)	<0.0047		0.0047	0.0017	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Carbon disulfide	<0.0047		0.0047	0.0017	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Carbon tetrachloride	<0.0047		0.0047	0.0010	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Chlorobenzene	<0.0047		0.0047	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Chloroethane	<0.0047		0.0047	0.0020	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Chloroform	<0.0047		0.0047	0.00092	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Chloromethane	<0.0047		0.0047	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
cis-1,2-Dichloroethene	<0.0047		0.0047	0.00096	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
cis-1,3-Dichloropropene	<0.0047		0.0047	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Dibromochloromethane	<0.0047		0.0047	0.00054	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
1,1-Dichloroethane	<0.0047		0.0047	0.00097	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
1,2-Dichloroethane	<0.0047		0.0047	0.00070	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
1,1-Dichloroethene	<0.0047		0.0047	0.0017	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
1,2-Dichloropropane	<0.0047	*	0.0047	0.0012	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
1,3-Dichloropropane, Total	<0.0047		0.0047	0.0013	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Ethylbenzene	<0.0047		0.0047	0.0012	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Methylene Chloride	<0.0047		0.0047	0.0036	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.00097	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Methyl tert-butyl ether	<0.0047		0.0047	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Styrene	<0.0047		0.0047	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
1,1,1,2-Tetrachloroethane	<0.0047		0.0047	0.00075	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Tetrachloroethene	<0.0047		0.0047	0.00098	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Toluene	<0.0047		0.0047	0.0016	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
trans-1,2-Dichloroethene	<0.0047		0.0047	0.0012	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
trans-1,3-Dichloropropene	<0.0047		0.0047	0.0013	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
1,1,1-Trichloroethane	<0.0047		0.0047	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
1,1,2-Trichloroethane	<0.0047		0.0047	0.00091	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Trichloroethene	<0.0047		0.0047	0.0013	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Vinyl acetate	<0.0047		0.0047	0.0013	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Vinyl chloride	<0.0047		0.0047	0.0011	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1
Xylenes, Total	<0.0094		0.0094	0.0017	mg/Kg	☼	02/18/16 08:10	02/25/16 17:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 122	02/18/16 08:10	02/25/16 17:46	1
Dibromofluoromethane	95		75 - 120	02/18/16 08:10	02/25/16 17:46	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 134	02/18/16 08:10	02/25/16 17:46	1
Toluene-d8 (Surr)	104		75 - 122	02/18/16 08:10	02/25/16 17:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.080	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-8

Client Sample ID: 3011-14-B01 (0-1)

Lab Sample ID: 500-107704-17

Date Collected: 02/17/16 09:20

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Naphthalene	<0.036		0.036	0.0055	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2-Methylnaphthalene	<0.036		0.036	0.0066	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2,4-Dinitrophenol	<0.73		0.73	0.63	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Acenaphthylene	0.0058	J	0.036	0.0048	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Acenaphthene	0.0078	J	0.036	0.0065	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Fluorene	0.0070	J	0.036	0.0051	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Phenanthrene	0.13		0.036	0.0050	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Anthracene	0.028	J	0.036	0.0060	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Carbazole	<0.18		0.18	0.090	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Fluoranthene	0.27		0.036	0.0067	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Pyrene	0.26		0.036	0.0072	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Benzo[a]anthracene	0.11		0.036	0.0048	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-8

Client Sample ID: 3011-14-B01 (0-1)

Lab Sample ID: 500-107704-17

Date Collected: 02/17/16 09:20

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.13		0.036	0.0098	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Benzo[b]fluoranthene	0.21		0.036	0.0078	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Benzo[k]fluoranthene	0.072		0.036	0.011	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Benzo[a]pyrene	0.12		0.036	0.0070	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Indeno[1,2,3-cd]pyrene	0.057		0.036	0.0093	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0070	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
Benzo[g,h,i]perylene	0.062		0.036	0.012	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 14:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	82		25 - 110	02/23/16 07:20	02/29/16 14:44	1
Phenol-d5	81		31 - 110	02/23/16 07:20	02/29/16 14:44	1
Nitrobenzene-d5	79		25 - 115	02/23/16 07:20	02/29/16 14:44	1
2-Fluorobiphenyl	74		25 - 119	02/23/16 07:20	02/29/16 14:44	1
2,4,6-Tribromophenol	73		35 - 137	02/23/16 07:20	02/29/16 14:44	1
Terphenyl-d14	114		36 - 134	02/23/16 07:20	02/29/16 14:44	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Arsenic	2.7		0.53	0.25	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Barium	28		0.53	0.097	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Beryllium	0.22		0.21	0.046	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Boron	7.7		2.7	0.37	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Cadmium	0.12		0.11	0.031	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Calcium	170000	B	110	34	mg/Kg	☼	02/25/16 15:15	02/28/16 01:48	10
Chromium	12	B	0.53	0.091	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Cobalt	3.4		0.27	0.060	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Copper	9.4	B	0.53	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Iron	7600	B	11	4.1	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Lead	67		0.27	0.13	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Magnesium	97000	B	53	22	mg/Kg	☼	02/25/16 15:15	02/28/16 01:48	10
Manganese	380	B	0.53	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Nickel	7.9		0.53	0.14	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Potassium	550		27	4.3	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Selenium	0.41	J	0.53	0.26	mg/Kg	☼	02/25/16 15:15	02/29/16 13:17	1
Silver	<0.27		0.27	0.062	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Sodium	850	B	53	7.0	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Thallium	<0.53		0.53	0.26	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Vanadium	15		0.27	0.078	mg/Kg	☼	02/25/16 15:15	02/26/16 22:21	1
Zinc	39		1.1	0.34	mg/Kg	☼	02/25/16 15:15	02/29/16 13:17	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.37	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:39	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 21:39	1
Boron	0.062	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:39	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-8

Client Sample ID: 3011-14-B01 (0-1)

Lab Sample ID: 500-107704-17

Date Collected: 02/17/16 09:20

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 21:39	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:39	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:39	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 21:39	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 21:39	1
Manganese	1.0		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:39	1
Nickel	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:39	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 21:39	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:39	1
Zinc	0.47	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 21:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.39		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 05:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 21:20	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 21:20	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:54	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0095	J	0.018	0.0093	mg/Kg	☼	02/23/16 15:15	02/24/16 11:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.87		0.200	0.200	SU			02/23/16 14:37	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-8

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

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.
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-8

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 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 #: 500-107704

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
EE		1001341-0008-01								Preservative Key 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		Lab Project #		# of Containers		Matrix					
R38		50011864		2		S		VOC			
Project Location/State		Lab PM		Date		Time					
Kane County, IL		D. Weyant		2/17/16		0920		Total TAC			
Sample								Water			
S. Coupe								PCP/SPC			
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix					
			Date	Time							
17		3011-14-B01 (01)	2/17/16	0920	2	S	X	X	X	X	
CG 2/17/16											

Turnaround Time Required (Business Days)

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

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	Company	Date	Time	Received By	Company	Date	Time
[Signature]	CC	2/17/16	1515	[Signature]	TA	2/17/16	1515
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[Signature]	TA	2/17/16	1645	[Signature]	TA	2/18/16	0730
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
 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:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107704-8

Login Number: 107704

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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: 500-107704-9
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 1:04:01 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

Review your project
results through
TotalAccess

Have a Question?



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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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Job ID: 500-107704-9

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107704-9

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-324219: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-15-B01 (0-1)D (500-107704-19), (MB 500-324045/1-A), (500-107704-E-1-A), (500-107704-E-1-B MS) and (500-107704-E-1-C MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324448 and analytical batch 500-324695 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)

Lab Sample ID: 500-107704-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.088		0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.016	J	0.039	0.0066	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.18		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.20		0.039	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.078		0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.099		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) pthalate	0.48		0.20	0.072	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.16		0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.081		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.090		0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.050		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.062		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.0		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	25		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.32		0.23	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	7.6		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.13		0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	140000	B	120	38	mg/Kg	10	☼	6010B	Total/NA
Chromium	9.3	B	0.58	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.8		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	11	B	0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	8400	B	12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	74		0.29	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	81000	B	58	24	mg/Kg	10	☼	6010B	Total/NA
Manganese	340	B	0.58	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.2		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	560		29	4.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.44	J	0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	690	B	58	7.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	56		1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.27	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.083	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.40	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.24		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.017	J	0.018	0.0095	mg/Kg	1	☼	7471B	Total/NA
pH	8.35		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-15-B01 (0-1)D

Lab Sample ID: 500-107704-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	0.0071	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.12		0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.022	J	0.039	0.0065	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.19		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.24		0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.078		0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.11		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.19		0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)D (Continued)

Lab Sample ID: 500-107704-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[k]fluoranthene	0.068		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.10		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.055		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.070		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.4		0.60	0.28	mg/Kg	1	☼	6010B	Total/NA
Barium	43		0.60	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.35		0.24	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	7.5		3.0	0.42	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17		0.12	0.035	mg/Kg	1	☼	6010B	Total/NA
Calcium	130000	B	120	39	mg/Kg	10	☼	6010B	Total/NA
Chromium	14	B	0.60	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.3		0.30	0.068	mg/Kg	1	☼	6010B	Total/NA
Copper	18	B	0.60	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	17000	B	12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	84		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	60000	B	6.0	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	420	B	0.60	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	15		0.60	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	660		30	4.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.52	J	0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Sodium	820	B	60	7.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.30	0.088	mg/Kg	1	☼	6010B	Total/NA
Zinc	55		1.2	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.070	J	0.50	0.050	mg/L	1		6010B	TCLP
Lead	0.0076		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	2.5		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.42	J B	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.11		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.29		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.019		0.019	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.41		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107704-18	3011-15-B01 (0-1)	Solid	02/17/16 09:10	02/18/16 07:30
500-107704-19	3011-15-B01 (0-1)D	Solid	02/17/16 09:10	02/18/16 07:30

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)

Lab Sample ID: 500-107704-18

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 80.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.023		0.023	0.0044	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Benzene	<0.0057		0.0057	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Bromodichloromethane	<0.0057		0.0057	0.00096	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Bromoform	<0.0057		0.0057	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Bromomethane	<0.0057 *		0.0057	0.0021	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
2-Butanone (MEK)	<0.0057		0.0057	0.0020	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Carbon disulfide	<0.0057		0.0057	0.0021	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Carbon tetrachloride	<0.0057		0.0057	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Chlorobenzene	<0.0057		0.0057	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Chloroethane	<0.0057		0.0057	0.0024	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Chloroform	<0.0057		0.0057	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Chloromethane	<0.0057		0.0057	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
cis-1,2-Dichloroethene	<0.0057		0.0057	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
cis-1,3-Dichloropropene	<0.0057		0.0057	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Dibromochloromethane	<0.0057		0.0057	0.00065	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,1-Dichloroethane	<0.0057		0.0057	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,2-Dichloroethane	<0.0057		0.0057	0.00084	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,1-Dichloroethene	<0.0057		0.0057	0.0021	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,2-Dichloropropane	<0.0057		0.0057	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,3-Dichloropropane, Total	<0.0057		0.0057	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Ethylbenzene	<0.0057		0.0057	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
2-Hexanone	<0.0057		0.0057	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Methylene Chloride	<0.0057		0.0057	0.0043	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
4-Methyl-2-pentanone (MIBK)	<0.0057		0.0057	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Methyl tert-butyl ether	<0.0057		0.0057	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Styrene	<0.0057		0.0057	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,1,2,2-Tetrachloroethane	<0.0057		0.0057	0.00090	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Tetrachloroethene	<0.0057		0.0057	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Toluene	<0.0057		0.0057	0.0020	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
trans-1,2-Dichloroethene	<0.0057		0.0057	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
trans-1,3-Dichloropropene	<0.0057		0.0057	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,1,1-Trichloroethane	<0.0057		0.0057	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,1,2-Trichloroethane	<0.0057		0.0057	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Trichloroethene	<0.0057		0.0057	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Vinyl acetate	<0.0057		0.0057	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Vinyl chloride	<0.0057		0.0057	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Xylenes, Total	<0.011		0.011	0.0021	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 122	02/18/16 08:10	02/24/16 17:10	1
Dibromofluoromethane	92		75 - 120	02/18/16 08:10	02/24/16 17:10	1
1,2-Dichloroethane-d4 (Surr)	81		70 - 134	02/18/16 08:10	02/24/16 17:10	1
Toluene-d8 (Surr)	106		75 - 122	02/18/16 08:10	02/24/16 17:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)

Lab Sample ID: 500-107704-18

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 80.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2-Methylnaphthalene	<0.039		0.039	0.0073	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2-Nitrophenol	<0.39		0.39	0.094	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Pentachlorophenol	<0.80		0.80	0.63	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Phenanthrene	0.088		0.039	0.0055	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Anthracene	0.016 J		0.039	0.0066	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Fluoranthene	0.18		0.039	0.0073	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Pyrene	0.20		0.039	0.0079	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Benzo[a]anthracene	0.078		0.039	0.0053	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)

Lab Sample ID: 500-107704-18

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 80.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.099		0.039	0.011	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Bis(2-ethylhexyl) phthalate	0.48		0.20	0.072	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Benzo[b]fluoranthene	0.16		0.039	0.0085	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Benzo[k]fluoranthene	0.081		0.039	0.012	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Benzo[a]pyrene	0.090		0.039	0.0077	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Indeno[1,2,3-cd]pyrene	0.050		0.039	0.010	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Benzo[g,h,i]perylene	0.062		0.039	0.013	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	78		25 - 110	02/23/16 07:20	02/29/16 15:12	1
Phenol-d5	74		31 - 110	02/23/16 07:20	02/29/16 15:12	1
Nitrobenzene-d5	74		25 - 115	02/23/16 07:20	02/29/16 15:12	1
2-Fluorobiphenyl	68		25 - 119	02/23/16 07:20	02/29/16 15:12	1
2,4,6-Tribromophenol	67		35 - 137	02/23/16 07:20	02/29/16 15:12	1
Terphenyl-d14	125		36 - 134	02/23/16 07:20	02/29/16 15:12	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	☼	02/25/16 15:15	02/26/16 22:26	1
Arsenic	3.0		0.58	0.27	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Barium	25		0.58	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Beryllium	0.32		0.23	0.051	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Boron	7.6		2.9	0.41	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Cadmium	0.13		0.12	0.034	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Calcium	140000	B	120	38	mg/Kg	☼	02/25/16 15:15	02/28/16 01:52	10
Chromium	9.3	B	0.58	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Cobalt	3.8		0.29	0.066	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Copper	11	B	0.58	0.13	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Iron	8400	B	12	4.5	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Lead	74		0.29	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Magnesium	81000	B	58	24	mg/Kg	☼	02/25/16 15:15	02/28/16 01:52	10
Manganese	340	B	0.58	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Nickel	9.2		0.58	0.16	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Potassium	560		29	4.8	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Selenium	0.44	J	0.58	0.29	mg/Kg	☼	02/25/16 15:15	02/29/16 13:22	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Sodium	690	B	58	7.7	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Vanadium	12		0.29	0.085	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Zinc	56		1.2	0.37	mg/Kg	☼	02/25/16 15:15	02/29/16 13:22	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.27	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:45	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 21:45	1
Boron	0.083	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)

Lab Sample ID: 500-107704-18

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 80.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 21:45	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:45	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:45	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 21:45	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 21:45	1
Manganese	1.2		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:45	1
Nickel	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:45	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 21:45	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:45	1
Zinc	0.40	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 21:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.24		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 05:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 21:24	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 21:24	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:56	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	J	0.018	0.0095	mg/Kg	☼	02/23/16 15:15	02/24/16 12:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.35		0.200	0.200	SU			02/23/16 14:42	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)D

Lab Sample ID: 500-107704-19

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 81.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0036	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Benzene	<0.0046		0.0046	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Bromodichloromethane	<0.0046		0.0046	0.00078	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Bromoform	<0.0046		0.0046	0.00095	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Bromomethane	<0.0046	*	0.0046	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
2-Butanone (MEK)	<0.0046		0.0046	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Carbon disulfide	<0.0046		0.0046	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Carbon tetrachloride	<0.0046		0.0046	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Chlorobenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Chloroethane	<0.0046		0.0046	0.0020	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Chloroform	<0.0046		0.0046	0.00091	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Chloromethane	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
cis-1,2-Dichloroethene	<0.0046		0.0046	0.00095	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
cis-1,3-Dichloropropene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Dibromochloromethane	<0.0046		0.0046	0.00053	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,1-Dichloroethane	<0.0046		0.0046	0.00096	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,2-Dichloroethane	<0.0046		0.0046	0.00069	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,1-Dichloroethene	<0.0046		0.0046	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,2-Dichloropropane	<0.0046		0.0046	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,3-Dichloropropane, Total	<0.0046		0.0046	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Ethylbenzene	<0.0046		0.0046	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Methylene Chloride	<0.0046		0.0046	0.0035	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.00096	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Methyl tert-butyl ether	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Styrene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,1,2,2-Tetrachloroethane	<0.0046		0.0046	0.00074	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Tetrachloroethene	<0.0046		0.0046	0.00097	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Toluene	<0.0046		0.0046	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
trans-1,2-Dichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
trans-1,3-Dichloropropene	<0.0046		0.0046	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,1,1-Trichloroethane	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,1,2-Trichloroethane	<0.0046		0.0046	0.00090	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Trichloroethene	<0.0046		0.0046	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Vinyl acetate	<0.0046		0.0046	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Vinyl chloride	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Xylenes, Total	<0.0093		0.0093	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 122	02/18/16 08:10	02/24/16 17:35	1
Dibromofluoromethane	95		75 - 120	02/18/16 08:10	02/24/16 17:35	1
1,2-Dichloroethane-d4 (Surr)	82		70 - 134	02/18/16 08:10	02/24/16 17:35	1
Toluene-d8 (Surr)	107		75 - 122	02/18/16 08:10	02/24/16 17:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.087	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)D

Lab Sample ID: 500-107704-19

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 81.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Fluorene	0.0071	J	0.039	0.0055	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Phenanthrene	0.12		0.039	0.0055	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Anthracene	0.022	J	0.039	0.0065	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Fluoranthene	0.19		0.039	0.0073	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Pyrene	0.24		0.039	0.0078	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Benzo[a]anthracene	0.078		0.039	0.0053	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)D

Lab Sample ID: 500-107704-19

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 81.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.11		0.039	0.011	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Benzo[b]fluoranthene	0.19		0.039	0.0084	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Benzo[k]fluoranthene	0.068		0.039	0.012	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Benzo[a]pyrene	0.10		0.039	0.0076	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Indeno[1,2,3-cd]pyrene	0.055		0.039	0.010	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Benzo[g,h,i]perylene	0.070		0.039	0.013	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	92		25 - 110	02/23/16 07:20	02/29/16 19:27	1
Phenol-d5	92		31 - 110	02/23/16 07:20	02/29/16 19:27	1
Nitrobenzene-d5	94		25 - 115	02/23/16 07:20	02/29/16 19:27	1
2-Fluorobiphenyl	85		25 - 119	02/23/16 07:20	02/29/16 19:27	1
2,4,6-Tribromophenol	97		35 - 137	02/23/16 07:20	02/29/16 19:27	1
Terphenyl-d14	167	X	36 - 134	02/23/16 07:20	02/29/16 19:27	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	☼	02/25/16 15:15	02/26/16 22:31	1
Arsenic	4.4		0.60	0.28	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Barium	43		0.60	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Beryllium	0.35		0.24	0.052	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Boron	7.5		3.0	0.42	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Cadmium	0.17		0.12	0.035	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Calcium	130000	B	120	39	mg/Kg	☼	02/25/16 15:15	02/28/16 01:56	10
Chromium	14	B	0.60	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Cobalt	5.3		0.30	0.068	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Copper	18	B	0.60	0.13	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Iron	17000	B	12	4.6	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Lead	84		0.30	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Magnesium	60000	B	6.0	2.4	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Manganese	420	B	0.60	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Nickel	15		0.60	0.16	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Potassium	660		30	4.9	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Selenium	0.52	J	0.60	0.30	mg/Kg	☼	02/25/16 15:15	02/28/16 02:24	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Sodium	820	B	60	7.9	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Vanadium	14		0.30	0.088	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Zinc	55		1.2	0.38	mg/Kg	☼	02/25/16 15:15	02/28/16 02:24	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.31	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:52	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 21:52	1
Boron	0.070	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:52	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)D

Lab Sample ID: 500-107704-19

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 81.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 21:52	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:52	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:52	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 21:52	1
Lead	0.0076		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 21:52	1
Manganese	2.5		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:52	1
Nickel	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:52	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 21:52	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:52	1
Zinc	0.42	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 21:52	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.11		0.0075	0.0075	mg/L		02/25/16 08:29	02/28/16 05:54	1
Manganese	0.29		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 05:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 21:28	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 21:28	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:58	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019		0.019	0.010	mg/Kg	☼	02/23/16 15:15	02/24/16 12:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.41		0.200	0.200	SU			02/23/16 14:47	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

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.
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.634.5200 Fax: 708.634.5211

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

Chain of Custody Record

Lab Job #: 500-107784
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Preservative					Comments
			Date	Time			1	2	3	4	5	
18		Soil-15-Bo1(0-1)	2/17/16	0910	2	S		X	X	X	X	
19		Soil-15-Bo1(0-1) D	2/17/16	0910	2	I		X	X	X	X	
2/17-16												

- Preservative Key
- HCL, Cool to 4°
 - H2SO4, Cool to 4°
 - HNO3, Cool to 4°
 - NaOH, Cool to 4°
 - NaOH/Zn, Cool to 4°
 - NaHSO4
 - Cool to 4°
 - None
 - Other

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>S. Neal</u>	Company: <u>EC</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>	Received By: <u>S. Neal</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>	Lab Courier: <u>TA</u>
Relinquished By: <u>S. Neal</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1645</u>	Received By: <u>Sherril Scott</u>	Company: <u>TA-COIT</u>	Date: <u>2/18/16</u>	Time: <u>0730</u>	Shipped: _____
Relinquished By: _____	Company: _____	Date: _____	Time: _____	Received By: _____	Company: _____	Date: _____	Time: _____	Hand Delivered: _____

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

Client Comments: _____
 Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107704-9

Login Number: 107704

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 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: FAP 347 (IL Route 38) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
49W 000 block of IL 38 ISGS #3011-15 (Vacant Land)

City: Maple Park State: IL Zip Code: 60151

County: Kane Township: Virgil

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

Latitude: 41.89448609 Longitude: -88.56522858
(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: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: 60196-1096 Phone: 847-705-4159

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

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 an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 347 (IL Route 38)

Latitude: 41.89448609 Longitude: -88.56522858

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 appropriately located 35 Ill. Adm. Code 1100.610(a):

Location 3011-15-B01 was sampled within the construction zone adjacent to ISGS #3011-15 (Vacant Land). Refer to PSI Report for ISGS #3011-15 (Vacant Land) including Table 4-4, and Figures 4-3A&B.

- 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]:

See attached data summary table and associated laboratory data package J107704-9.

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

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

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

Company Name: Ecology and Environment, Inc.

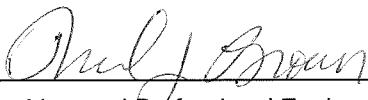
Street Address: 33 West Monroe Street

City: Chicago State: IL Zip Code: 60603

Phone: 312-578-9243

Neil J. Brown

Printed Name:



Licensed Professional Engineer or
Licensed Professional Geologist Signature:

3/17/16

Date:



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




Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A

Key to Data Tables

- MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

Criteria Qualifiers and Shading

- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-15 (Vacant Land)		Comparison Criteria			
BORING	3011-15-B01		MACs			TACO
SAMPLE	3011-15-B01 (0-1)	3011-15-B01 (0-1)D	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil				
DEPTH (feet)	0-1	0-1				
pH	8.35	8.41				
VOCs (None Detected)						
SVOCs (mg/kg)						
Anthracene	0.016 J	0.022 J	12,000	--	--	--
Benzo[a]anthracene	0.078	0.078	0.9	1.8	1.1	--
Benzo[a]pyrene	0.09	0.1 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.16	0.19	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.062	0.07	--	--	--	--
Benzo[k]fluoranthene	0.081	0.068	9	--	--	--
Bis(2-ethylhexyl) phthalate	0.48	ND U	46	--	--	--
Chrysene	0.099	0.11	88	--	--	--
Fluoranthene	0.18	0.19	3,100	--	--	--
Fluorene	ND U	0.0071 J	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.05	0.055	0.9	1.6	0.9	--
Phenanthrene	0.088	0.12	--	--	--	--
Pyrene	0.2	0.24	2,300	--	--	--
Inorganics (mg/kg)						
Arsenic	3	4.4	11.3	13	--	--
Barium	25	43	1,500	--	--	--
Beryllium	0.32	0.35	22	--	--	--
Boron	7.6	7.5	40	--	--	--
Cadmium	0.13	0.17	5.2	--	--	--
Calcium	140,000	130,000	--	--	--	--
Chromium	9.3	14	21	--	--	--
Cobalt	3.8	5.3	20	--	--	--
Copper	11	18	2,900	--	--	--
Iron	8,400	17,000 †m	15,000	15,900	--	--
Lead	74	84	107	--	--	--
Magnesium	81,000	60,000	325,000	--	--	--
Manganese	340	420	630	636	--	--
Mercury	0.017 J	0.019	0.89	--	--	--
Nickel	9.2	15	100	--	--	--
Potassium	560	660	--	--	--	--
Selenium	0.44 J	0.52 J	1.3	--	--	--
Sodium	690	820	--	--	--	--
Vanadium	12	14	550	--	--	--
Zinc	56	55	5,100	--	--	--
TCLP Metals (mg/L)						
Barium	0.27 J	0.31 J	--	--	--	2
Boron	0.083 J	0.07 J	--	--	--	2
Iron	ND U	ND U	--	--	--	5
Lead	ND U	0.0076 L	--	--	--	0.0075
Manganese	1.2 J L	2.5 J L	--	--	--	0.15
Zinc	0.4 J	0.42 J	--	--	--	5
SPLP Metals (mg/L)						
Lead	NA	0.11 L	--	--	--	0.0075
Manganese	0.24 L	0.29 L	--	--	--	0.15

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: 500-107704-9
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/2/2016 1:04:01 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

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Job ID: 500-107704-9

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107704-9

Comments

No additional comments.

Receipt

The samples were received on 2/18/2016 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4° C, 2.9° C, 3.1° C and 3.3° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-324219: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-15-B01 (0-1)D (500-107704-19), (MB 500-324045/1-A), (500-107704-E-1-A), (500-107704-E-1-B MS) and (500-107704-E-1-C MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324448 and analytical batch 500-324695 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)

Lab Sample ID: 500-107704-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.088		0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.016	J	0.039	0.0066	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.18		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.20		0.039	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.078		0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.099		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phtalate	0.48		0.20	0.072	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.16		0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.081		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.090		0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.050		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.062		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.0		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	25		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.32		0.23	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	7.6		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.13		0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	140000	B	120	38	mg/Kg	10	☼	6010B	Total/NA
Chromium	9.3	B	0.58	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.8		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	11	B	0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	8400	B	12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	74		0.29	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	81000	B	58	24	mg/Kg	10	☼	6010B	Total/NA
Manganese	340	B	0.58	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.2		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	560		29	4.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.44	J	0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	690	B	58	7.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	56		1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.27	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.083	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.40	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.24		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.017	J	0.018	0.0095	mg/Kg	1	☼	7471B	Total/NA
pH	8.35		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-15-B01 (0-1)D

Lab Sample ID: 500-107704-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	0.0071	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.12		0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.022	J	0.039	0.0065	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.19		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.24		0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.078		0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.11		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.19		0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)D (Continued)

Lab Sample ID: 500-107704-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[k]fluoranthene	0.068		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.10		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.055		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.070		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.4		0.60	0.28	mg/Kg	1	☼	6010B	Total/NA
Barium	43		0.60	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.35		0.24	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	7.5		3.0	0.42	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17		0.12	0.035	mg/Kg	1	☼	6010B	Total/NA
Calcium	130000	B	120	39	mg/Kg	10	☼	6010B	Total/NA
Chromium	14	B	0.60	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.3		0.30	0.068	mg/Kg	1	☼	6010B	Total/NA
Copper	18	B	0.60	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	17000	B	12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	84		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	60000	B	6.0	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	420	B	0.60	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	15		0.60	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	660		30	4.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.52	J	0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Sodium	820	B	60	7.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.30	0.088	mg/Kg	1	☼	6010B	Total/NA
Zinc	55		1.2	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.070	J	0.50	0.050	mg/L	1		6010B	TCLP
Lead	0.0076		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	2.5		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.42	J B	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.11		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.29		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.019		0.019	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.41		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107704-18	3011-15-B01 (0-1)	Solid	02/17/16 09:10	02/18/16 07:30
500-107704-19	3011-15-B01 (0-1)D	Solid	02/17/16 09:10	02/18/16 07:30

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)

Lab Sample ID: 500-107704-18

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 80.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.023		0.023	0.0044	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Benzene	<0.0057		0.0057	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Bromodichloromethane	<0.0057		0.0057	0.00096	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Bromoform	<0.0057		0.0057	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Bromomethane	<0.0057 *		0.0057	0.0021	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
2-Butanone (MEK)	<0.0057		0.0057	0.0020	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Carbon disulfide	<0.0057		0.0057	0.0021	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Carbon tetrachloride	<0.0057		0.0057	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Chlorobenzene	<0.0057		0.0057	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Chloroethane	<0.0057		0.0057	0.0024	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Chloroform	<0.0057		0.0057	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Chloromethane	<0.0057		0.0057	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
cis-1,2-Dichloroethene	<0.0057		0.0057	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
cis-1,3-Dichloropropene	<0.0057		0.0057	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Dibromochloromethane	<0.0057		0.0057	0.00065	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,1-Dichloroethane	<0.0057		0.0057	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,2-Dichloroethane	<0.0057		0.0057	0.00084	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,1-Dichloroethene	<0.0057		0.0057	0.0021	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,2-Dichloropropane	<0.0057		0.0057	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,3-Dichloropropane, Total	<0.0057		0.0057	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Ethylbenzene	<0.0057		0.0057	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
2-Hexanone	<0.0057		0.0057	0.0018	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Methylene Chloride	<0.0057		0.0057	0.0043	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
4-Methyl-2-pentanone (MIBK)	<0.0057		0.0057	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Methyl tert-butyl ether	<0.0057		0.0057	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Styrene	<0.0057		0.0057	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,1,2,2-Tetrachloroethane	<0.0057		0.0057	0.00090	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Tetrachloroethene	<0.0057		0.0057	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Toluene	<0.0057		0.0057	0.0020	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
trans-1,2-Dichloroethene	<0.0057		0.0057	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
trans-1,3-Dichloropropene	<0.0057		0.0057	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,1,1-Trichloroethane	<0.0057		0.0057	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
1,1,2-Trichloroethane	<0.0057		0.0057	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Trichloroethene	<0.0057		0.0057	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Vinyl acetate	<0.0057		0.0057	0.0015	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Vinyl chloride	<0.0057		0.0057	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1
Xylenes, Total	<0.011		0.011	0.0021	mg/Kg	☼	02/18/16 08:10	02/24/16 17:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 122	02/18/16 08:10	02/24/16 17:10	1
Dibromofluoromethane	92		75 - 120	02/18/16 08:10	02/24/16 17:10	1
1,2-Dichloroethane-d4 (Surr)	81		70 - 134	02/18/16 08:10	02/24/16 17:10	1
Toluene-d8 (Surr)	106		75 - 122	02/18/16 08:10	02/24/16 17:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)

Lab Sample ID: 500-107704-18

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 80.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2-Methylnaphthalene	<0.039		0.039	0.0073	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2-Nitrophenol	<0.39		0.39	0.094	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Pentachlorophenol	<0.80		0.80	0.63	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Phenanthrene	0.088		0.039	0.0055	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Anthracene	0.016 J		0.039	0.0066	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Fluoranthene	0.18		0.039	0.0073	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Pyrene	0.20		0.039	0.0079	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Benzo[a]anthracene	0.078		0.039	0.0053	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)

Lab Sample ID: 500-107704-18

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 80.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.099		0.039	0.011	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Bis(2-ethylhexyl) phthalate	0.48		0.20	0.072	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Benzo[b]fluoranthene	0.16		0.039	0.0085	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Benzo[k]fluoranthene	0.081		0.039	0.012	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Benzo[a]pyrene	0.090		0.039	0.0077	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Indeno[1,2,3-cd]pyrene	0.050		0.039	0.010	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
Benzo[g,h,i]perylene	0.062		0.039	0.013	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	02/23/16 07:20	02/29/16 15:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	78		25 - 110	02/23/16 07:20	02/29/16 15:12	1
Phenol-d5	74		31 - 110	02/23/16 07:20	02/29/16 15:12	1
Nitrobenzene-d5	74		25 - 115	02/23/16 07:20	02/29/16 15:12	1
2-Fluorobiphenyl	68		25 - 119	02/23/16 07:20	02/29/16 15:12	1
2,4,6-Tribromophenol	67		35 - 137	02/23/16 07:20	02/29/16 15:12	1
Terphenyl-d14	125		36 - 134	02/23/16 07:20	02/29/16 15:12	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	☼	02/25/16 15:15	02/26/16 22:26	1
Arsenic	3.0		0.58	0.27	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Barium	25		0.58	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Beryllium	0.32		0.23	0.051	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Boron	7.6		2.9	0.41	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Cadmium	0.13		0.12	0.034	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Calcium	140000	B	120	38	mg/Kg	☼	02/25/16 15:15	02/28/16 01:52	10
Chromium	9.3	B	0.58	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Cobalt	3.8		0.29	0.066	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Copper	11	B	0.58	0.13	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Iron	8400	B	12	4.5	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Lead	74		0.29	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Magnesium	81000	B	58	24	mg/Kg	☼	02/25/16 15:15	02/28/16 01:52	10
Manganese	340	B	0.58	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Nickel	9.2		0.58	0.16	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Potassium	560		29	4.8	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Selenium	0.44	J	0.58	0.29	mg/Kg	☼	02/25/16 15:15	02/29/16 13:22	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Sodium	690	B	58	7.7	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Vanadium	12		0.29	0.085	mg/Kg	☼	02/25/16 15:15	02/26/16 22:26	1
Zinc	56		1.2	0.37	mg/Kg	☼	02/25/16 15:15	02/29/16 13:22	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.27	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:45	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 21:45	1
Boron	0.083	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)

Lab Sample ID: 500-107704-18

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 80.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 21:45	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:45	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:45	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 21:45	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 21:45	1
Manganese	1.2		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:45	1
Nickel	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:45	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 21:45	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:45	1
Zinc	0.40	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 21:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.24		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 05:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 21:24	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 21:24	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:56	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	J	0.018	0.0095	mg/Kg	☼	02/23/16 15:15	02/24/16 12:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.35		0.200	0.200	SU			02/23/16 14:42	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)D

Lab Sample ID: 500-107704-19

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 81.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0036	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Benzene	<0.0046		0.0046	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Bromodichloromethane	<0.0046		0.0046	0.00078	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Bromoform	<0.0046		0.0046	0.00095	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Bromomethane	<0.0046	*	0.0046	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
2-Butanone (MEK)	<0.0046		0.0046	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Carbon disulfide	<0.0046		0.0046	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Carbon tetrachloride	<0.0046		0.0046	0.0010	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Chlorobenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Chloroethane	<0.0046		0.0046	0.0020	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Chloroform	<0.0046		0.0046	0.00091	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Chloromethane	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
cis-1,2-Dichloroethene	<0.0046		0.0046	0.00095	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
cis-1,3-Dichloropropene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Dibromochloromethane	<0.0046		0.0046	0.00053	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,1-Dichloroethane	<0.0046		0.0046	0.00096	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,2-Dichloroethane	<0.0046		0.0046	0.00069	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,1-Dichloroethene	<0.0046		0.0046	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,2-Dichloropropane	<0.0046		0.0046	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,3-Dichloropropane, Total	<0.0046		0.0046	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Ethylbenzene	<0.0046		0.0046	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Methylene Chloride	<0.0046		0.0046	0.0035	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.00096	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Methyl tert-butyl ether	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Styrene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,1,2,2-Tetrachloroethane	<0.0046		0.0046	0.00074	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Tetrachloroethene	<0.0046		0.0046	0.00097	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Toluene	<0.0046		0.0046	0.0016	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
trans-1,2-Dichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
trans-1,3-Dichloropropene	<0.0046		0.0046	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,1,1-Trichloroethane	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
1,1,2-Trichloroethane	<0.0046		0.0046	0.00090	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Trichloroethene	<0.0046		0.0046	0.0013	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Vinyl acetate	<0.0046		0.0046	0.0012	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Vinyl chloride	<0.0046		0.0046	0.0011	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1
Xylenes, Total	<0.0093		0.0093	0.0017	mg/Kg	☼	02/18/16 08:10	02/24/16 17:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 122	02/18/16 08:10	02/24/16 17:35	1
Dibromofluoromethane	95		75 - 120	02/18/16 08:10	02/24/16 17:35	1
1,2-Dichloroethane-d4 (Surr)	82		70 - 134	02/18/16 08:10	02/24/16 17:35	1
Toluene-d8 (Surr)	107		75 - 122	02/18/16 08:10	02/24/16 17:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.087	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)D

Lab Sample ID: 500-107704-19

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 81.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Fluorene	0.0071	J	0.039	0.0055	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Phenanthrene	0.12		0.039	0.0055	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Anthracene	0.022	J	0.039	0.0065	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Fluoranthene	0.19		0.039	0.0073	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Pyrene	0.24		0.039	0.0078	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Benzo[a]anthracene	0.078		0.039	0.0053	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)D

Lab Sample ID: 500-107704-19

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 81.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.11		0.039	0.011	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Benzo[b]fluoranthene	0.19		0.039	0.0084	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Benzo[k]fluoranthene	0.068		0.039	0.012	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Benzo[a]pyrene	0.10		0.039	0.0076	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Indeno[1,2,3-cd]pyrene	0.055		0.039	0.010	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
Benzo[g,h,i]perylene	0.070		0.039	0.013	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	02/23/16 07:20	02/29/16 19:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	92		25 - 110	02/23/16 07:20	02/29/16 19:27	1
Phenol-d5	92		31 - 110	02/23/16 07:20	02/29/16 19:27	1
Nitrobenzene-d5	94		25 - 115	02/23/16 07:20	02/29/16 19:27	1
2-Fluorobiphenyl	85		25 - 119	02/23/16 07:20	02/29/16 19:27	1
2,4,6-Tribromophenol	97		35 - 137	02/23/16 07:20	02/29/16 19:27	1
Terphenyl-d14	167	X	36 - 134	02/23/16 07:20	02/29/16 19:27	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	☼	02/25/16 15:15	02/26/16 22:31	1
Arsenic	4.4		0.60	0.28	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Barium	43		0.60	0.11	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Beryllium	0.35		0.24	0.052	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Boron	7.5		3.0	0.42	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Cadmium	0.17		0.12	0.035	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Calcium	130000	B	120	39	mg/Kg	☼	02/25/16 15:15	02/28/16 01:56	10
Chromium	14	B	0.60	0.10	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Cobalt	5.3		0.30	0.068	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Copper	18	B	0.60	0.13	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Iron	17000	B	12	4.6	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Lead	84		0.30	0.15	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Magnesium	60000	B	6.0	2.4	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Manganese	420	B	0.60	0.12	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Nickel	15		0.60	0.16	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Potassium	660		30	4.9	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Selenium	0.52	J	0.60	0.30	mg/Kg	☼	02/25/16 15:15	02/28/16 02:24	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Sodium	820	B	60	7.9	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Vanadium	14		0.30	0.088	mg/Kg	☼	02/25/16 15:15	02/26/16 22:31	1
Zinc	55		1.2	0.38	mg/Kg	☼	02/25/16 15:15	02/28/16 02:24	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.31	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:52	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/25/16 08:27	02/26/16 21:52	1
Boron	0.070	J	0.50	0.050	mg/L		02/25/16 08:27	02/26/16 21:52	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Client Sample ID: 3011-15-B01 (0-1)D

Lab Sample ID: 500-107704-19

Date Collected: 02/17/16 09:10

Matrix: Solid

Date Received: 02/18/16 07:30

Percent Solids: 81.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/25/16 08:27	02/26/16 21:52	1
Chromium	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:52	1
Cobalt	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:52	1
Iron	<0.40		0.40	0.20	mg/L		02/25/16 08:27	02/26/16 21:52	1
Lead	0.0076		0.0075	0.0075	mg/L		02/25/16 08:27	02/26/16 21:52	1
Manganese	2.5		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:52	1
Nickel	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:52	1
Selenium	<0.050		0.050	0.020	mg/L		02/25/16 08:27	02/26/16 21:52	1
Silver	<0.025		0.025	0.010	mg/L		02/25/16 08:27	02/26/16 21:52	1
Zinc	0.42	J B	0.50	0.020	mg/L		02/25/16 08:27	02/26/16 21:52	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.11		0.0075	0.0075	mg/L		02/25/16 08:29	02/28/16 05:54	1
Manganese	0.29		0.025	0.010	mg/L		02/25/16 08:29	02/28/16 05:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/25/16 08:27	02/25/16 21:28	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/25/16 08:27	02/25/16 21:28	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/24/16 14:15	02/25/16 10:58	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019		0.019	0.010	mg/Kg	☼	02/23/16 15:15	02/24/16 12:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.41		0.200	0.200	SU			02/23/16 14:47	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

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.
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107704-9

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.634.5200 Fax: 708.634.5211

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

Chain of Custody Record

Lab Job #: 500-107784

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
Project Name		Lab Project #		Date		Time		# of Containers		Matrix	
EE		1009341-0009.01									
IL38		50011864									
Kane County, IL		D. Wright									
S. Cooper											
Lab ID	M/S/MSD	Sample ID	Date	Time	# of Containers	Matrix					
18		Soil-15-Bo1(01)	2/17/16	0910	2	S	VOC	SVOE	Totl TAC	TAC meth	P H/96 Sol
19		Soil-15-Bo1(01) D	2/17/16	0910	2	I					
2/17-16											

- Preservative Key
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

Turnaround Time Required (Business Days)

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

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>S. Cooper</u>	Company: <u>EE</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>	Received By: <u>M. Neal</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1515</u>
Relinquished By: <u>M. Neal</u>	Company: <u>TA</u>	Date: <u>2/17/16</u>	Time: <u>1645</u>	Received By: <u>Sherrill Scott</u>	Company: <u>TA-COIT</u>	Date: <u>2/18/16</u>	Time: <u>0730</u>
Relinquished By: _____	Company: _____	Date: _____	Time: _____	Received By: _____	Company: _____	Date: _____	Time: _____

Lab Courier: TA

Shipped: _____

Hand Delivered: _____

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

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107704-9

Login Number: 107704

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1,2.9,2.4,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 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: FAP 347 (IL Route 38) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
48W 838 IL 38 ISGS #3011-16 (George Kay & Assoc)

City: Maple Park State: IL Zip Code: 60151

County: Kane Township: Virgil

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

Latitude: 41.894573 Longitude: -88.562725
(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: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: 60196-1096 Phone: 847-705-4159

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

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 an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 347 (IL Route 38)Latitude: 41.894573 Longitude: -88.562725Uncontaminated 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 appropriately located 35 Ill. Adm. Code 1100.610(a):

Location 3011-16-B02 was sampled within the construction zone adjacent to ISGS #3011-16 (George Kay & Assoc). Refer to PSI Report for ISGS #3011-16 (George Kay & Assoc) including Table 4-4, and Figures 4-3A&B.

- 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]:

See attached data summary table and associated laboratory data package J107641-1.

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

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

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

Company Name: Ecology and Environment, Inc.Street Address: 33 West Monroe StreetCity: Chicago State: IL Zip Code: 60603Phone: 312-578-9243Neil J. Brown

Printed Name:

Licensed Professional Engineer or
Licensed Professional Geologist Signature:3/17/16

Date:



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




Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A

Key to Data Tables

- MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

Criteria Qualifiers and Shading

- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-16 (George Kay & Assoc)		Comparison Criteria			
	3011-16-B02		MACs			TACO
SAMPLE	3011-16-B02 (0-1)		Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil					
DEPTH (feet)	0-1					
pH	8.66					
VOCs (None Detected)						
SVOCs (mg/kg)						
2-Methylnaphthalene	ND	U	--	--	--	--
Acenaphthene	ND	U	570	--	--	--
Anthracene	0.012	J	12,000	--	--	--
Benzo[a]anthracene	0.061		0.9	1.8	1.1	--
Benzo[a]pyrene	0.069		0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.13		0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.038	J	--	--	--	--
Benzo[k]fluoranthene	0.041		9	--	--	--
Bis(2-ethylhexyl) phthalate	ND	U	46	--	--	--
Carbazole	ND	U	0.6	--	--	--
Chrysene	0.075		88	--	--	--
Dibenzo[a,h]anthracene	0.008	J	0.09	0.42	0.2	--
Dibenzofuran	ND	U	--	--	--	--
Fluoranthene	0.15		3,100	--	--	--
Fluorene	ND	U	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.04		0.9	1.6	0.9	--
Naphthalene	ND	U	1.8	--	--	--
Phenanthrene	0.061		--	--	--	--
Pyrene	0.1	J	2,300	--	--	--
Inorganics (mg/kg)						
Antimony	ND	UJ	5	--	--	--
Arsenic	2.7		11.3	13	--	--
Barium	24		1,500	--	--	--
Beryllium	0.28		22	--	--	--
Boron	11	J	40	--	--	--
Cadmium	0.11		5.2	--	--	--
Calcium	140,000		--	--	--	--
Chromium	7.9		21	--	--	--
Cobalt	3.6		20	--	--	--
Copper	9.9		2,900	--	--	--
Iron	7,000		15,000	15,900	--	--
Lead	51		107	--	--	--
Magnesium	83,000		325,000	--	--	--
Manganese	290		630	636	--	--
Mercury	0.017		0.89	--	--	--
Nickel	8.2		100	--	--	--
Potassium	620	J	--	--	--	--
Selenium	0.32	J	1.3	--	--	--
Sodium	1,000		--	--	--	--
Vanadium	11		550	--	--	--
Zinc	43	J	5,100	--	--	--
TCLP Metals (mg/L)						
Barium	0.35	J	--	--	--	2
Boron	0.39	J	--	--	--	2
Chromium	ND	U	--	--	--	0.1
Lead	ND	U	--	--	--	0.0075
Manganese	0.58	L	--	--	--	0.15
Nickel	0.053		--	--	--	0.1
Zinc	0.73		--	--	--	5
SPLP Metals (mg/L)						
Lead	NA		--	--	--	0.0075
Manganese	0.17	L	--	--	--	0.15

TestAmerica

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ANALYTICAL REPORT

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

TestAmerica Job ID: 500-107641-1
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/1/2016 5:11:26 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

Review your project
results through
TotalAccess

Have a Question?



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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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-1

Job ID: 500-107641-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107641-1

Comments

No additional comments.

Receipt

The samples were received on 2/17/2016 7:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.5° C, 2.8° C, 3.2° C and 3.5° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-323872: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-16-B01 (0-1) (500-107641-2), (500-107641-E-1-D MS) and (500-107641-E-1-E MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324170 and analytical batch 500-324562 contained Calcium and Magnesium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 6020A: The CCB at lines 76, 88 and 92 in batch 500-324078 were all outside the upper acceptance limits for Thallium. All the associated samples to these CCB were below the reporting limit, and therefore reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-1

Client Sample ID: 3011-16-B02 (0-1)

Lab Sample ID: 500-107641-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.061		0.037	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.012	J	0.037	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.15		0.037	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.10	F1	0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.061		0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.075		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.13		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.041		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.069		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.040		0.037	0.0098	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.0080	J	0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.038	F1	0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.7		0.57	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	24		0.57	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.28		0.23	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	11	F1	2.8	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11		0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	140000	B	110	37	mg/Kg	10	☼	6010B	Total/NA
Chromium	7.9	B	0.57	0.098	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.6		0.28	0.064	mg/Kg	1	☼	6010B	Total/NA
Copper	9.9		0.57	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	7000	B	11	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	51		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	83000	B	57	23	mg/Kg	10	☼	6010B	Total/NA
Manganese	290		0.57	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	8.2		0.57	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	620	F1	28	4.6	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.32	J	0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Sodium	1000		57	7.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	11		0.28	0.083	mg/Kg	1	☼	6010B	Total/NA
Zinc	43	F1	1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.35	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.39	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.58		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.053		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.73	B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.17		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.017		0.017	0.0087	mg/Kg	1	☼	7471B	Total/NA
pH	8.66		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107641-1	3011-16-B02 (0-1)	Solid	02/16/16 12:20	02/17/16 07:45

1

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-1

Client Sample ID: 3011-16-B02 (0-1)

Lab Sample ID: 500-107641-1

Date Collected: 02/16/16 12:20

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0037	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Benzene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Bromodichloromethane	<0.0048		0.0048	0.00081	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Bromoform	<0.0048		0.0048	0.00098	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Bromomethane	<0.0048	*	0.0048	0.0018	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
2-Butanone (MEK)	<0.0048		0.0048	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Carbon disulfide	<0.0048		0.0048	0.0018	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Carbon tetrachloride	<0.0048		0.0048	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Chlorobenzene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Chloroethane	<0.0048		0.0048	0.0020	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Chloroform	<0.0048		0.0048	0.00094	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Chloromethane	<0.0048		0.0048	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
cis-1,2-Dichloroethene	<0.0048		0.0048	0.00098	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
cis-1,3-Dichloropropene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Dibromochloromethane	<0.0048		0.0048	0.00055	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
1,1-Dichloroethane	<0.0048		0.0048	0.00099	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
1,2-Dichloroethane	<0.0048		0.0048	0.00072	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
1,1-Dichloroethene	<0.0048		0.0048	0.0018	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
1,2-Dichloropropane	<0.0048		0.0048	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
1,3-Dichloropropane, Total	<0.0048		0.0048	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Ethylbenzene	<0.0048		0.0048	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Methylene Chloride	<0.0048		0.0048	0.0036	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.00099	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Methyl tert-butyl ether	<0.0048		0.0048	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Styrene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
1,1,2,2-Tetrachloroethane	<0.0048		0.0048	0.00077	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Tetrachloroethene	<0.0048		0.0048	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Toluene	<0.0048		0.0048	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
trans-1,2-Dichloroethene	<0.0048		0.0048	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
trans-1,3-Dichloropropene	<0.0048		0.0048	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
1,1,1-Trichloroethane	<0.0048		0.0048	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
1,1,2-Trichloroethane	<0.0048		0.0048	0.00093	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Trichloroethene	<0.0048		0.0048	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Vinyl acetate	<0.0048		0.0048	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Vinyl chloride	<0.0048		0.0048	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Xylenes, Total	<0.0097		0.0097	0.0018	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 122	02/17/16 08:40	02/22/16 15:37	1
Dibromofluoromethane	105		75 - 120	02/17/16 08:40	02/22/16 15:37	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 134	02/17/16 08:40	02/22/16 15:37	1
Toluene-d8 (Surr)	109		75 - 122	02/17/16 08:40	02/22/16 15:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-1

Client Sample ID: 3011-16-B02 (0-1)

Lab Sample ID: 500-107641-1

Date Collected: 02/16/16 12:20

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Hexachloroethane	<0.19	F1	0.19	0.057	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2,4-Dichlorophenol	<0.37		0.37	0.090	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Hexachlorocyclopentadiene	<0.76	F1	0.76	0.22	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2-Methylnaphthalene	<0.037		0.037	0.0069	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2,4-Dinitrophenol	<0.76	F1	0.76	0.66	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Pentachlorophenol	<0.76	F2	0.76	0.61	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Phenanthrene	0.061		0.037	0.0053	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Anthracene	0.012	J	0.037	0.0063	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Fluoranthene	0.15		0.037	0.0070	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Pyrene	0.10	F1	0.037	0.0075	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Butyl benzyl phthalate	<0.19	F1	0.19	0.072	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Benzo[a]anthracene	0.061		0.037	0.0051	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-1

Client Sample ID: 3011-16-B02 (0-1)

Lab Sample ID: 500-107641-1

Date Collected: 02/16/16 12:20

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.075		0.037	0.010	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Bis(2-ethylhexyl) phthalate	<0.19	F1	0.19	0.069	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Di-n-octyl phthalate	<0.19	F1	0.19	0.062	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Benzo[b]fluoranthene	0.13		0.037	0.0081	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Benzo[k]fluoranthene	0.041		0.037	0.011	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Benzo[a]pyrene	0.069		0.037	0.0073	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Indeno[1,2,3-cd]pyrene	0.040		0.037	0.0098	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Dibenz(a,h)anthracene	0.0080	J	0.037	0.0073	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Benzo[g,h,i]perylene	0.038	F1	0.037	0.012	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	100		25 - 110				02/22/16 06:59	02/28/16 16:00	1
Phenol-d5	65		31 - 110				02/22/16 06:59	02/28/16 16:00	1
Nitrobenzene-d5	53		25 - 115				02/22/16 06:59	02/28/16 16:00	1
2-Fluorobiphenyl	73		25 - 119				02/22/16 06:59	02/28/16 16:00	1
2,4,6-Tribromophenol	79		35 - 137				02/22/16 06:59	02/28/16 16:00	1
Terphenyl-d14	83		36 - 134				02/22/16 06:59	02/28/16 16:00	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1	F1	1.1	0.24	mg/Kg	☼	02/23/16 16:44	02/26/16 14:00	1
Arsenic	2.7		0.57	0.26	mg/Kg	☼	02/23/16 16:44	02/26/16 14:00	1
Barium	24		0.57	0.10	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Beryllium	0.28		0.23	0.049	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Boron	11	F1	2.8	0.40	mg/Kg	☼	02/23/16 16:44	02/26/16 14:00	1
Cadmium	0.11		0.11	0.033	mg/Kg	☼	02/23/16 16:44	02/26/16 14:00	1
Calcium	140000	B	110	37	mg/Kg	☼	02/23/16 16:44	02/26/16 04:39	10
Chromium	7.9	B	0.57	0.098	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Cobalt	3.6		0.28	0.064	mg/Kg	☼	02/23/16 16:44	02/26/16 14:00	1
Copper	9.9		0.57	0.12	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Iron	7000	B	11	4.4	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Lead	51		0.28	0.14	mg/Kg	☼	02/23/16 16:44	02/26/16 14:00	1
Magnesium	83000	B	57	23	mg/Kg	☼	02/23/16 16:44	02/26/16 04:39	10
Manganese	290		0.57	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Nickel	8.2		0.57	0.15	mg/Kg	☼	02/23/16 16:44	02/26/16 14:00	1
Potassium	620	F1	28	4.6	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Selenium	0.32	J	0.57	0.28	mg/Kg	☼	02/23/16 16:44	02/26/16 14:00	1
Silver	<0.28		0.28	0.066	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Sodium	1000		57	7.5	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	02/23/16 16:44	02/26/16 14:00	1
Vanadium	11		0.28	0.083	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Zinc	43	F1	1.1	0.36	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.35	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 19:58	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 19:58	1
Boron	0.39	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 19:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-1

Client Sample ID: 3011-16-B02 (0-1)

Lab Sample ID: 500-107641-1

Date Collected: 02/16/16 12:20

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/21/16 16:00	02/23/16 19:58	1
Chromium	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 19:58	1
Cobalt	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 19:58	1
Iron	<0.40		0.40	0.20	mg/L		02/21/16 16:00	02/23/16 19:58	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/21/16 16:00	02/23/16 19:58	1
Manganese	0.58		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 19:58	1
Nickel	0.053		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 19:58	1
Selenium	<0.050		0.050	0.020	mg/L		02/21/16 16:00	02/23/16 19:58	1
Silver	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 19:58	1
Zinc	0.73	B	0.50	0.020	mg/L		02/21/16 16:00	02/23/16 19:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.17		0.025	0.010	mg/L		02/23/16 09:20	02/25/16 02:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/21/16 16:00	02/22/16 19:01	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/21/16 16:00	02/22/16 19:01	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/16 15:15	02/23/16 10:47	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017		0.017	0.0087	mg/Kg	☼	02/23/16 15:15	02/24/16 12:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.66		0.200	0.200	SU			02/19/16 16:44	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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.
F2	MS/MSD RPD exceeds control limits
X	Surrogate is outside control limits

Metals

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.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
F3	Duplicate RPD exceeds the control limit
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.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-1

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

THE LEADER IN ENVIRONMENT

2417 Bond Street, University Park, IL
Phone: 708.534.5200 Fax: 708.534.5201



500-107641 COC

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 #: 500-107641

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler 2, 8, 25, 32, 35

Client		Client Project #		Preservative							Preservative Key		
EE		1009341-0008.01									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		Lab Project #		Parameter							Comments		
FL38		50011864											
Project Location/State		Lab PM											
Kane County, IL		P. Wright											
Sampler		Sampling											
S. Cooper		Date	Time	# of Containers	Matrix								
Lab ID	MIS/MSD	Sample ID				VOC	SUVC	TOTAL TA	TA	TURBIDITY	TA	P4/40 Solids	
1		3011-16-B02 (-1)	2-16-16	1220	2 S	X	X	X	X	X			
2		3011-16-B01 (-1)	2-16-16	1330	2 S	X	X	X	X	X			

Turnaround Time Required (Business Days)

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

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	Company	Date	Time	Received By	Company	Date	Time
<i>[Signature]</i>	EE	2-16-16	1530	<i>[Signature]</i>	TA	2/16/16	1530
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
<i>[Signature]</i>	TA	2/16/16	1715	<i>[Signature]</i>	TA-CERT	2/17/16	0745

Lab Courier: TA
Shipped: _____
Hand Delivered: _____

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

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107641-1

Login Number: 107641

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.8,2.5,3.2,3.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 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: FAP 347 (IL Route 38) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
[48W 742 IL 38 ISGS #3011-17 (Farmstead)]

City: Maple Park State: IL Zip Code: 60151

County: Kane Township: Virgil

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

Latitude: 41.894597 Longitude: -88.561375
(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: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: 60196-1096 Phone: 847-705-4159

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

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 an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 347 (IL Route 38)

Latitude: 41.894597 Longitude: -88.561375

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 appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Locations 3011-17-B01, 3011-17-B02, and 3011-16-B02 were sampled within the construction zone adjacent to ISGS #3011-17 (Farmstead). Refer to PSI Report for ISGS #3011-17 (Farmstead) including Table 4-4, and Figures 4-3A&B.

- 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]:

See attached data summary table and associated laboratory data package J107641-2 and J107641-1.

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

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

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

Company Name: Ecology and Environment, Inc.

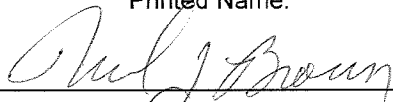
Street Address: 33 West Monroe Street

City: Chicago State: IL Zip Code: 60603

Phone: 312-578-9243

Neil J. Brown

Printed Name:



Licensed Professional Engineer or
Licensed Professional Geologist Signature:

3/17/14

Date:



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




Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A

Key to Data Tables

- MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

Criteria Qualifiers and Shading

- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-17 (Farmstead)		Comparison Criteria			
	3011-17-B01	3011-17-B02	MACs			TACO
BORING	3011-17-B01 (0-1)	3011-17-B02 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE						
MATRIX	Soil	Soil				
DEPTH (feet)	0-1	0-1				
pH	8.89	8.6				
VOCs (None Detected)						
SVOCs (mg/kg)						
Acenaphthylene	ND U	0.0062 J	--	--	--	--
Anthracene	0.014 J	0.0097 J	12,000	--	--	--
Benzo[a]anthracene	0.067	0.062	0.9	1.8	1.1	--
Benzo[a]pyrene	0.086	0.075	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.16	0.13	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.038 J	0.037	--	--	--	--
Benzo[k]fluoranthene	0.057	0.048	9	--	--	--
Chrysene	0.087	0.078	88	--	--	--
Dibenzo(a,h)anthracene	0.0096 J	ND U	0.09	0.42	0.2	--
Fluoranthene	0.16	0.13	3,100	--	--	--
Indeno[1,2,3-cd]pyrene	0.041	0.043	0.9	1.6	0.9	--
Phenanthrene	0.07	0.047	--	--	--	--
Pyrene	0.12	0.099	2,300	--	--	--
Inorganics (mg/kg)						
Arsenic	4.4	1.6	11.3	13	--	--
Barium	46	16	1,500	--	--	--
Beryllium	0.31	0.16 J	22	--	--	--
Boron	7	8.5	40	--	--	--
Cadmium	0.15	0.088 J	5.2	--	--	--
Calcium	120,000	180,000	--	--	--	--
Chromium	10	7.5	21	--	--	--
Cobalt	5.4	2.3	20	--	--	--
Copper	14	14	2,900	--	--	--
Iron	8,800	5,300	15,000	15,900	--	--
Lead	55	48	107	--	--	--
Magnesium	49,000	110,000	325,000	--	--	--
Manganese	350	220	630	636	--	--
Mercury	0.016 J	ND U	0.89	--	--	--
Nickel	12	6.6	100	--	--	--
Potassium	690	460	--	--	--	--
Sodium	1,700	660	--	--	--	--
Vanadium	14	8.9	550	--	--	--
Zinc	65	34	5,100	--	--	--
TCLP Metals (mg/L)						
Barium	0.5	0.18 J	--	--	--	2
Boron	0.56	0.61	--	--	--	2
Lead	ND U	0.015 L	--	--	--	0.0075
Manganese	0.81 L	1.3 L	--	--	--	0.15
Nickel	ND U	0.014 J	--	--	--	0.1
Zinc	0.4 J	1.1	--	--	--	5
SPLP Metals (mg/L)						
Lead	NA	0.011 L	--	--	--	0.0075
Manganese	2.1 L	0.013 J	--	--	--	0.15

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A
CONTAMINANTS OF CONCERN

SITE	ISGS #3011-16 (George Kay & Assoc)		Comparison Criteria			
	3011-16-B02		MACs			TACO
SAMPLE	3011-16-B02 (0-1)		Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil					
DEPTH (feet)	0-1					
pH	8.66					
VOCs (None Detected)						
SVOCs (mg/kg)						
2-Methylnaphthalene	ND	U	--	--	--	--
Acenaphthene	ND	U	570	--	--	--
Anthracene	0.012	J	12,000	--	--	--
Benzo[a]anthracene	0.061		0.9	1.8	1.1	--
Benzo[a]pyrene	0.069		0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.13		0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.038	J	--	--	--	--
Benzo[k]fluoranthene	0.041		9	--	--	--
Bis(2-ethylhexyl) phthalate	ND	U	46	--	--	--
Carbazole	ND	U	0.6	--	--	--
Chrysene	0.075		88	--	--	--
Dibenzo[a,h]anthracene	0.008	J	0.09	0.42	0.2	--
Dibenzofuran	ND	U	--	--	--	--
Fluoranthene	0.15		3,100	--	--	--
Fluorene	ND	U	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.04		0.9	1.6	0.9	--
Naphthalene	ND	U	1.8	--	--	--
Phenanthrene	0.061		--	--	--	--
Pyrene	0.1	J	2,300	--	--	--
Inorganics (mg/kg)						
Antimony	ND	UJ	5	--	--	--
Arsenic	2.7		11.3	13	--	--
Barium	24		1,500	--	--	--
Beryllium	0.28		22	--	--	--
Boron	11	J	40	--	--	--
Cadmium	0.11		5.2	--	--	--
Calcium	140,000		--	--	--	--
Chromium	7.9		21	--	--	--
Cobalt	3.6		20	--	--	--
Copper	9.9		2,900	--	--	--
Iron	7,000		15,000	15,900	--	--
Lead	51		107	--	--	--
Magnesium	83,000		325,000	--	--	--
Manganese	290		630	636	--	--
Mercury	0.017		0.89	--	--	--
Nickel	8.2		100	--	--	--
Potassium	620	J	--	--	--	--
Selenium	0.32	J	1.3	--	--	--
Sodium	1,000		--	--	--	--
Vanadium	11		550	--	--	--
Zinc	43	J	5,100	--	--	--
TCLP Metals (mg/L)						
Barium	0.35	J	--	--	--	2
Boron	0.39	J	--	--	--	2
Chromium	ND	U	--	--	--	0.1
Lead	ND	U	--	--	--	0.0075
Manganese	0.58	L	--	--	--	0.15
Nickel	0.053		--	--	--	0.1
Zinc	0.73		--	--	--	5
SPLP Metals (mg/L)						
Lead	NA		--	--	--	0.0075
Manganese	0.17	L	--	--	--	0.15

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ANALYTICAL REPORT

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

TestAmerica Job ID: 500-107641-1
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/1/2016 5:11:26 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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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.

1

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-1

Job ID: 500-107641-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107641-1

Comments

No additional comments.

Receipt

The samples were received on 2/17/2016 7:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.5° C, 2.8° C, 3.2° C and 3.5° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-323872: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-16-B01 (0-1) (500-107641-2), (500-107641-E-1-D MS) and (500-107641-E-1-E MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324170 and analytical batch 500-324562 contained Calcium and Magnesium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 6020A: The CCB at lines 76, 88 and 92 in batch 500-324078 were all outside the upper acceptance limits for Thallium. All the associated samples to these CCB were below the reporting limit, and therefore reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-1

Client Sample ID: 3011-16-B02 (0-1)

Lab Sample ID: 500-107641-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.061		0.037	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.012	J	0.037	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.15		0.037	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.10	F1	0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.061		0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.075		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.13		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.041		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.069		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.040		0.037	0.0098	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.0080	J	0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.038	F1	0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.7		0.57	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	24		0.57	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.28		0.23	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	11	F1	2.8	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11		0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	140000	B	110	37	mg/Kg	10	☼	6010B	Total/NA
Chromium	7.9	B	0.57	0.098	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.6		0.28	0.064	mg/Kg	1	☼	6010B	Total/NA
Copper	9.9		0.57	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	7000	B	11	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	51		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	83000	B	57	23	mg/Kg	10	☼	6010B	Total/NA
Manganese	290		0.57	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	8.2		0.57	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	620	F1	28	4.6	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.32	J	0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Sodium	1000		57	7.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	11		0.28	0.083	mg/Kg	1	☼	6010B	Total/NA
Zinc	43	F1	1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.35	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.39	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.58		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.053		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.73	B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.17		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.017		0.017	0.0087	mg/Kg	1	☼	7471B	Total/NA
pH	8.66		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107641-1	3011-16-B02 (0-1)	Solid	02/16/16 12:20	02/17/16 07:45

1

2

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-1

Client Sample ID: 3011-16-B02 (0-1)

Lab Sample ID: 500-107641-1

Date Collected: 02/16/16 12:20

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0037	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Benzene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Bromodichloromethane	<0.0048		0.0048	0.00081	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Bromoform	<0.0048		0.0048	0.00098	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Bromomethane	<0.0048	*	0.0048	0.0018	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
2-Butanone (MEK)	<0.0048		0.0048	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Carbon disulfide	<0.0048		0.0048	0.0018	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Carbon tetrachloride	<0.0048		0.0048	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Chlorobenzene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Chloroethane	<0.0048		0.0048	0.0020	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Chloroform	<0.0048		0.0048	0.00094	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Chloromethane	<0.0048		0.0048	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
cis-1,2-Dichloroethene	<0.0048		0.0048	0.00098	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
cis-1,3-Dichloropropene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Dibromochloromethane	<0.0048		0.0048	0.00055	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
1,1-Dichloroethane	<0.0048		0.0048	0.00099	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
1,2-Dichloroethane	<0.0048		0.0048	0.00072	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
1,1-Dichloroethene	<0.0048		0.0048	0.0018	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
1,2-Dichloropropane	<0.0048		0.0048	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
1,3-Dichloropropane, Total	<0.0048		0.0048	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Ethylbenzene	<0.0048		0.0048	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Methylene Chloride	<0.0048		0.0048	0.0036	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.00099	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Methyl tert-butyl ether	<0.0048		0.0048	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Styrene	<0.0048		0.0048	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
1,1,2,2-Tetrachloroethane	<0.0048		0.0048	0.00077	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Tetrachloroethene	<0.0048		0.0048	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Toluene	<0.0048		0.0048	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
trans-1,2-Dichloroethene	<0.0048		0.0048	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
trans-1,3-Dichloropropene	<0.0048		0.0048	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
1,1,1-Trichloroethane	<0.0048		0.0048	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
1,1,2-Trichloroethane	<0.0048		0.0048	0.00093	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Trichloroethene	<0.0048		0.0048	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Vinyl acetate	<0.0048		0.0048	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Vinyl chloride	<0.0048		0.0048	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1
Xylenes, Total	<0.0097		0.0097	0.0018	mg/Kg	☼	02/17/16 08:40	02/22/16 15:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 122	02/17/16 08:40	02/22/16 15:37	1
Dibromofluoromethane	105		75 - 120	02/17/16 08:40	02/22/16 15:37	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 134	02/17/16 08:40	02/22/16 15:37	1
Toluene-d8 (Surr)	109		75 - 122	02/17/16 08:40	02/22/16 15:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-1

Client Sample ID: 3011-16-B02 (0-1)

Lab Sample ID: 500-107641-1

Date Collected: 02/16/16 12:20

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Hexachloroethane	<0.19	F1	0.19	0.057	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2,4-Dichlorophenol	<0.37		0.37	0.090	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Hexachlorocyclopentadiene	<0.76	F1	0.76	0.22	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2-Methylnaphthalene	<0.037		0.037	0.0069	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2,4-Dinitrophenol	<0.76	F1	0.76	0.66	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Pentachlorophenol	<0.76	F2	0.76	0.61	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Phenanthrene	0.061		0.037	0.0053	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Anthracene	0.012	J	0.037	0.0063	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Fluoranthene	0.15		0.037	0.0070	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Pyrene	0.10	F1	0.037	0.0075	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Butyl benzyl phthalate	<0.19	F1	0.19	0.072	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Benzo[a]anthracene	0.061		0.037	0.0051	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-1

Client Sample ID: 3011-16-B02 (0-1)

Lab Sample ID: 500-107641-1

Date Collected: 02/16/16 12:20

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.075		0.037	0.010	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Bis(2-ethylhexyl) phthalate	<0.19	F1	0.19	0.069	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Di-n-octyl phthalate	<0.19	F1	0.19	0.062	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Benzo[b]fluoranthene	0.13		0.037	0.0081	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Benzo[k]fluoranthene	0.041		0.037	0.011	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Benzo[a]pyrene	0.069		0.037	0.0073	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Indeno[1,2,3-cd]pyrene	0.040		0.037	0.0098	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Dibenz(a,h)anthracene	0.0080	J	0.037	0.0073	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
Benzo[g,h,i]perylene	0.038	F1	0.037	0.012	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	02/22/16 06:59	02/28/16 16:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	100		25 - 110	02/22/16 06:59	02/28/16 16:00	1
Phenol-d5	65		31 - 110	02/22/16 06:59	02/28/16 16:00	1
Nitrobenzene-d5	53		25 - 115	02/22/16 06:59	02/28/16 16:00	1
2-Fluorobiphenyl	73		25 - 119	02/22/16 06:59	02/28/16 16:00	1
2,4,6-Tribromophenol	79		35 - 137	02/22/16 06:59	02/28/16 16:00	1
Terphenyl-d14	83		36 - 134	02/22/16 06:59	02/28/16 16:00	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1	F1	1.1	0.24	mg/Kg	☼	02/23/16 16:44	02/26/16 14:00	1
Arsenic	2.7		0.57	0.26	mg/Kg	☼	02/23/16 16:44	02/26/16 14:00	1
Barium	24		0.57	0.10	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Beryllium	0.28		0.23	0.049	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Boron	11	F1	2.8	0.40	mg/Kg	☼	02/23/16 16:44	02/26/16 14:00	1
Cadmium	0.11		0.11	0.033	mg/Kg	☼	02/23/16 16:44	02/26/16 14:00	1
Calcium	140000	B	110	37	mg/Kg	☼	02/23/16 16:44	02/26/16 04:39	10
Chromium	7.9	B	0.57	0.098	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Cobalt	3.6		0.28	0.064	mg/Kg	☼	02/23/16 16:44	02/26/16 14:00	1
Copper	9.9		0.57	0.12	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Iron	7000	B	11	4.4	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Lead	51		0.28	0.14	mg/Kg	☼	02/23/16 16:44	02/26/16 14:00	1
Magnesium	83000	B	57	23	mg/Kg	☼	02/23/16 16:44	02/26/16 04:39	10
Manganese	290		0.57	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Nickel	8.2		0.57	0.15	mg/Kg	☼	02/23/16 16:44	02/26/16 14:00	1
Potassium	620	F1	28	4.6	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Selenium	0.32	J	0.57	0.28	mg/Kg	☼	02/23/16 16:44	02/26/16 14:00	1
Silver	<0.28		0.28	0.066	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Sodium	1000		57	7.5	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	02/23/16 16:44	02/26/16 14:00	1
Vanadium	11		0.28	0.083	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1
Zinc	43	F1	1.1	0.36	mg/Kg	☼	02/23/16 16:44	02/26/16 02:21	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.35	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 19:58	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 19:58	1
Boron	0.39	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 19:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-1

Client Sample ID: 3011-16-B02 (0-1)

Lab Sample ID: 500-107641-1

Date Collected: 02/16/16 12:20

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/21/16 16:00	02/23/16 19:58	1
Chromium	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 19:58	1
Cobalt	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 19:58	1
Iron	<0.40		0.40	0.20	mg/L		02/21/16 16:00	02/23/16 19:58	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/21/16 16:00	02/23/16 19:58	1
Manganese	0.58		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 19:58	1
Nickel	0.053		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 19:58	1
Selenium	<0.050		0.050	0.020	mg/L		02/21/16 16:00	02/23/16 19:58	1
Silver	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 19:58	1
Zinc	0.73 B		0.50	0.020	mg/L		02/21/16 16:00	02/23/16 19:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.17		0.025	0.010	mg/L		02/23/16 09:20	02/25/16 02:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/21/16 16:00	02/22/16 19:01	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/21/16 16:00	02/22/16 19:01	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/16 15:15	02/23/16 10:47	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017		0.017	0.0087	mg/Kg	☼	02/23/16 15:15	02/24/16 12:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.66		0.200	0.200	SU			02/19/16 16:44	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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.
F2	MS/MSD RPD exceeds control limits
X	Surrogate is outside control limits

Metals

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.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
F3	Duplicate RPD exceeds the control limit
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.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-1

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

THE LEADER IN ENVIRONMENT

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



500-107641 COC

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 #: 500-107641

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler 2, 8, 25, 32, 35

Client		Client Project #		Preservative							Preservative Key	
Project Name		Lab Project #		Parameter							Comments	
Project Location/State		Lab PM										
Sampler												
Lab ID	MS/MSD	Sampling		# of Containers	Matrix	VOC	SVOC	Total TA Mobile	Turbidity TA mobile	pH/45 Salinity		
		Date	Time									
1		3011-16-B02 (-1)	2-16-16	1220	2 S	X	X	X	X	X		
2		3011-16-B01 (-1)	2-16-16	1330	2 S	X	X	X	X	X		

Turnaround Time Required (Business Days)

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

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>[Signature]</u> Company <u>EE</u> Date <u>2-16-16</u> Time <u>1530</u>	Received By <u>[Signature]</u> Company <u>TA</u> Date <u>2/16/16</u> Time <u>1530</u>
Relinquished By <u>[Signature]</u> Company <u>TA</u> Date <u>2/16/16</u> Time <u>1715</u>	Received By <u>[Signature]</u> Company <u>TA-CART</u> Date <u>2/17/16</u> Time <u>0745</u>
Relinquished By _____ Company _____ Date _____ Time _____	Received By _____ Company _____ Date _____ Time _____

Lab Courier TA
 Shipped _____
 Hand Delivered _____

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

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107641-1

Login Number: 107641

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.8,2.5,3.2,3.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

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

TestAmerica Job ID: 500-107641-2
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/1/2016 5:24:05 PM
Jodie Bracken, Project Management Assistant II
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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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Job ID: 500-107641-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107641-2

Comments

No additional comments.

Receipt

The samples were received on 2/17/2016 7:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.5° C, 2.8° C, 3.2° C and 3.5° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-323872: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: (500-107641-E-1-D MS) and (500-107641-E-1-E MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324170 and analytical batch 500-324562 contained Calcium and Magnesium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Client Sample ID: 3011-17-B02 (0-1)

Lab Sample ID: 500-107641-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0062	J	0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.047		0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0097	J	0.036	0.0061	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.13		0.036	0.0068	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.099		0.036	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.062		0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.078		0.036	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.13		0.036	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.048		0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.075		0.036	0.0071	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.043		0.036	0.0095	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.037		0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	1.6		0.52	0.24	mg/Kg	1	☼	6010B	Total/NA
Barium	16		0.52	0.095	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.16	J	0.21	0.045	mg/Kg	1	☼	6010B	Total/NA
Boron	8.5		2.6	0.36	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.088	J	0.10	0.030	mg/Kg	1	☼	6010B	Total/NA
Calcium	180000	B	100	33	mg/Kg	10	☼	6010B	Total/NA
Chromium	7.5	B	0.52	0.089	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.3		0.26	0.058	mg/Kg	1	☼	6010B	Total/NA
Copper	14		0.52	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	5300	B	10	4.0	mg/Kg	1	☼	6010B	Total/NA
Lead	48		0.26	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	110000	B	52	21	mg/Kg	10	☼	6010B	Total/NA
Manganese	220		0.52	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	6.6		0.52	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	460		26	4.2	mg/Kg	1	☼	6010B	Total/NA
Sodium	660		52	6.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	8.9		0.26	0.075	mg/Kg	1	☼	6010B	Total/NA
Zinc	34		1.0	0.33	mg/Kg	1	☼	6010B	Total/NA
Barium	0.18	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.61		0.50	0.050	mg/L	1		6010B	TCLP
Lead	0.015		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	1.3		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.014	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	1.1	B	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.011		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.013	J	0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.60		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-17-B01 (0-1)

Lab Sample ID: 500-107641-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.070		0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.014	J	0.040	0.0068	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.16		0.040	0.0075	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.12		0.040	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.067		0.040	0.0054	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.087		0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.16		0.040	0.0087	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Client Sample ID: 3011-17-B01 (0-1) (Continued)

Lab Sample ID: 500-107641-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[k]fluoranthene	0.057		0.040	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.086		0.040	0.0078	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.041		0.040	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.0096	J	0.040	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.038	J	0.040	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.4		0.59	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	46		0.59	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.31		0.24	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	7.0		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.15		0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	120000	B	120	38	mg/Kg	10	☼	6010B	Total/NA
Chromium	10	B	0.59	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.4		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	14		0.59	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	8800	B	12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	55		0.29	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	49000	B	5.9	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	350		0.59	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	12		0.59	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	690		29	4.8	mg/Kg	1	☼	6010B	Total/NA
Sodium	1700		59	7.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.29	0.086	mg/Kg	1	☼	6010B	Total/NA
Zinc	65		1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.50		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.56		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.81		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.40	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	2.1		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.016	J	0.018	0.0096	mg/Kg	1	☼	7471B	Total/NA
pH	8.89		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107641-3	3011-17-B02 (0-1)	Solid	02/16/16 12:05	02/17/16 07:45
500-107641-4	3011-17-B01 (0-1)	Solid	02/16/16 12:15	02/17/16 07:45

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Client Sample ID: 3011-17-B02 (0-1)

Lab Sample ID: 500-107641-3

Date Collected: 02/16/16 12:05

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0032	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Benzene	<0.0042		0.0042	0.00092	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Bromodichloromethane	<0.0042		0.0042	0.00070	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Bromoform	<0.0042		0.0042	0.00085	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Bromomethane	<0.0042	*	0.0042	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
2-Butanone (MEK)	<0.0042		0.0042	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Carbon disulfide	<0.0042		0.0042	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Carbon tetrachloride	<0.0042		0.0042	0.00089	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Chlorobenzene	<0.0042		0.0042	0.00098	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Chloroethane	<0.0042		0.0042	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Chloroform	<0.0042		0.0042	0.00081	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Chloromethane	<0.0042		0.0042	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
cis-1,2-Dichloroethene	<0.0042		0.0042	0.00085	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
cis-1,3-Dichloropropene	<0.0042		0.0042	0.00095	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Dibromochloromethane	<0.0042		0.0042	0.00048	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
1,1-Dichloroethane	<0.0042		0.0042	0.00086	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
1,2-Dichloroethane	<0.0042		0.0042	0.00062	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
1,1-Dichloroethene	<0.0042		0.0042	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
1,2-Dichloropropane	<0.0042		0.0042	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
1,3-Dichloropropane, Total	<0.0042		0.0042	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Ethylbenzene	<0.0042		0.0042	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Methylene Chloride	<0.0042		0.0042	0.0031	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.00086	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Methyl tert-butyl ether	<0.0042		0.0042	0.00098	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Styrene	<0.0042		0.0042	0.00097	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
1,1,2,2-Tetrachloroethane	<0.0042		0.0042	0.00066	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Tetrachloroethene	<0.0042		0.0042	0.00086	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Toluene	<0.0042		0.0042	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
trans-1,2-Dichloroethene	<0.0042		0.0042	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
trans-1,3-Dichloropropene	<0.0042		0.0042	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
1,1,1-Trichloroethane	<0.0042		0.0042	0.00096	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
1,1,2-Trichloroethane	<0.0042		0.0042	0.00080	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Trichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Vinyl acetate	<0.0042		0.0042	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Vinyl chloride	<0.0042		0.0042	0.00099	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Xylenes, Total	<0.0083		0.0083	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 122	02/17/16 08:40	02/22/16 16:28	1
Dibromofluoromethane	108		75 - 120	02/17/16 08:40	02/22/16 16:28	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	02/17/16 08:40	02/22/16 16:28	1
Toluene-d8 (Surr)	109		75 - 122	02/17/16 08:40	02/22/16 16:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.081	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Client Sample ID: 3011-17-B02 (0-1)

Lab Sample ID: 500-107641-3

Date Collected: 02/16/16 12:05

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Hexachloroethane	<0.18		0.18	0.056	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2-Chlorophenol	<0.18		0.18	0.063	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Hexachlorobutadiene	<0.18		0.18	0.058	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2,4,6-Trichlorophenol	<0.36		0.36	0.13	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2,4,5-Trichlorophenol	<0.36		0.36	0.084	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2-Methylnaphthalene	<0.036		0.036	0.0067	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2-Chloronaphthalene	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2-Nitrophenol	<0.36		0.36	0.087	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Acenaphthylene	0.0062	J	0.036	0.0048	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Acenaphthene	<0.036		0.036	0.0066	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Fluorene	<0.036		0.036	0.0052	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.29	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Phenanthrene	0.047		0.036	0.0051	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Anthracene	0.0097	J	0.036	0.0061	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Carbazole	<0.18		0.18	0.092	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Fluoranthene	0.13		0.036	0.0068	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Pyrene	0.099		0.036	0.0073	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Butyl benzyl phthalate	<0.18		0.18	0.070	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Benzo[a]anthracene	0.062		0.036	0.0049	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Client Sample ID: 3011-17-B02 (0-1)

Lab Sample ID: 500-107641-3

Date Collected: 02/16/16 12:05

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.078		0.036	0.010	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Di-n-octyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Benzo[b]fluoranthene	0.13		0.036	0.0079	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Benzo[k]fluoranthene	0.048		0.036	0.011	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Benzo[a]pyrene	0.075		0.036	0.0071	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Indeno[1,2,3-cd]pyrene	0.043		0.036	0.0095	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0071	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Benzo[g,h,i]perylene	0.037		0.036	0.012	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	79		25 - 110	02/22/16 06:59	02/29/16 21:54	1
Phenol-d5	82		31 - 110	02/22/16 06:59	02/29/16 21:54	1
Nitrobenzene-d5	65		25 - 115	02/22/16 06:59	02/29/16 21:54	1
2-Fluorobiphenyl	70		25 - 119	02/22/16 06:59	02/29/16 21:54	1
2,4,6-Tribromophenol	54		35 - 137	02/22/16 06:59	02/29/16 21:54	1
Terphenyl-d14	74		36 - 134	02/22/16 06:59	02/29/16 21:54	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.21	mg/Kg	☼	02/23/16 16:44	02/26/16 14:39	1
Arsenic	1.6		0.52	0.24	mg/Kg	☼	02/23/16 16:44	02/26/16 14:39	1
Barium	16		0.52	0.095	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Beryllium	0.16	J	0.21	0.045	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Boron	8.5		2.6	0.36	mg/Kg	☼	02/23/16 16:44	02/26/16 14:39	1
Cadmium	0.088	J	0.10	0.030	mg/Kg	☼	02/23/16 16:44	02/26/16 14:39	1
Calcium	180000	B	100	33	mg/Kg	☼	02/23/16 16:44	02/26/16 05:11	10
Chromium	7.5	B	0.52	0.089	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Cobalt	2.3		0.26	0.058	mg/Kg	☼	02/23/16 16:44	02/26/16 14:39	1
Copper	14		0.52	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Iron	5300	B	10	4.0	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Lead	48		0.26	0.13	mg/Kg	☼	02/23/16 16:44	02/26/16 14:39	1
Magnesium	110000	B	52	21	mg/Kg	☼	02/23/16 16:44	02/26/16 05:11	10
Manganese	220		0.52	0.10	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Nickel	6.6		0.52	0.14	mg/Kg	☼	02/23/16 16:44	02/26/16 14:39	1
Potassium	460		26	4.2	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Selenium	<0.52		0.52	0.26	mg/Kg	☼	02/23/16 16:44	02/26/16 14:39	1
Silver	<0.26		0.26	0.060	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Sodium	660		52	6.8	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Thallium	<0.52		0.52	0.25	mg/Kg	☼	02/23/16 16:44	02/26/16 14:39	1
Vanadium	8.9		0.26	0.075	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Zinc	34		1.0	0.33	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.18	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 20:12	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 20:12	1
Boron	0.61		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 20:12	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Client Sample ID: 3011-17-B02 (0-1)

Lab Sample ID: 500-107641-3

Date Collected: 02/16/16 12:05

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	02/21/16 16:00	02/23/16 20:12	1
Chromium	<0.025		0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 20:12	1
Cobalt	<0.025		0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 20:12	1
Iron	<0.40		0.40	0.20	mg/L	-	02/21/16 16:00	02/23/16 20:12	1
Lead	0.015		0.0075	0.0075	mg/L	-	02/21/16 16:00	02/23/16 20:12	1
Manganese	1.3		0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 20:12	1
Nickel	0.014	J	0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 20:12	1
Selenium	<0.050		0.050	0.020	mg/L	-	02/21/16 16:00	02/23/16 20:12	1
Silver	<0.025		0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 20:12	1
Zinc	1.1	B	0.50	0.020	mg/L	-	02/21/16 16:00	02/23/16 20:12	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.011		0.0075	0.0075	mg/L	-	02/23/16 09:20	02/25/16 02:54	1
Manganese	0.013	J	0.025	0.010	mg/L	-	02/23/16 09:20	02/25/16 02:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	02/21/16 16:00	02/22/16 19:21	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L	-	02/21/16 16:00	02/22/16 19:21	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	02/22/16 15:15	02/23/16 10:59	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.018		0.018	0.0093	mg/Kg	☼	02/23/16 15:15	02/24/16 12:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.60		0.200	0.200	SU	-		02/19/16 17:04	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Client Sample ID: 3011-17-B01 (0-1)

Lab Sample ID: 500-107641-4

Date Collected: 02/16/16 12:15

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0039	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Benzene	<0.0051		0.0051	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Bromodichloromethane	<0.0051		0.0051	0.00086	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Bromoform	<0.0051		0.0051	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Bromomethane	<0.0051	*	0.0051	0.0019	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
2-Butanone (MEK)	<0.0051		0.0051	0.0018	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Carbon disulfide	<0.0051		0.0051	0.0019	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Carbon tetrachloride	<0.0051		0.0051	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Chlorobenzene	<0.0051		0.0051	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Chloroethane	<0.0051		0.0051	0.0021	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Chloroform	<0.0051		0.0051	0.00099	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Chloromethane	<0.0051		0.0051	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
cis-1,2-Dichloroethene	<0.0051		0.0051	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
cis-1,3-Dichloropropene	<0.0051		0.0051	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Dibromochloromethane	<0.0051		0.0051	0.00058	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
1,1-Dichloroethane	<0.0051		0.0051	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
1,2-Dichloroethane	<0.0051		0.0051	0.00075	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
1,1-Dichloroethene	<0.0051		0.0051	0.0018	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
1,2-Dichloropropane	<0.0051		0.0051	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
1,3-Dichloropropane, Total	<0.0051		0.0051	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Ethylbenzene	<0.0051		0.0051	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
2-Hexanone	<0.0051		0.0051	0.0016	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Methylene Chloride	<0.0051		0.0051	0.0038	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
4-Methyl-2-pentanone (MIBK)	<0.0051		0.0051	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Methyl tert-butyl ether	<0.0051		0.0051	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Styrene	<0.0051		0.0051	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
1,1,2,2-Tetrachloroethane	<0.0051		0.0051	0.00081	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Tetrachloroethene	<0.0051		0.0051	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Toluene	<0.0051		0.0051	0.0018	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
trans-1,2-Dichloroethene	<0.0051		0.0051	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
trans-1,3-Dichloropropene	<0.0051		0.0051	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
1,1,1-Trichloroethane	<0.0051		0.0051	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
1,1,2-Trichloroethane	<0.0051		0.0051	0.00098	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Trichloroethene	<0.0051		0.0051	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Vinyl acetate	<0.0051		0.0051	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Vinyl chloride	<0.0051		0.0051	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1
Xylenes, Total	<0.010		0.010	0.0019	mg/Kg	☼	02/17/16 08:40	02/22/16 16:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 122	02/17/16 08:40	02/22/16 16:53	1
Dibromofluoromethane	107		75 - 120	02/17/16 08:40	02/22/16 16:53	1
1,2-Dichloroethane-d4 (Surr)	115		70 - 134	02/17/16 08:40	02/22/16 16:53	1
Toluene-d8 (Surr)	108		75 - 122	02/17/16 08:40	02/22/16 16:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.090	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Client Sample ID: 3011-17-B01 (0-1)

Lab Sample ID: 500-107641-4

Date Collected: 02/16/16 12:15

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.049	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
2-Methylnaphthalene	<0.040		0.040	0.0074	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
2,4-Dinitrophenol	<0.82		0.82	0.71	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
4-Nitrophenol	<0.82		0.82	0.38	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Phenanthrene	0.070		0.040	0.0056	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Anthracene	0.014 J		0.040	0.0068	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Fluoranthene	0.16		0.040	0.0075	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Pyrene	0.12		0.040	0.0080	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Benzo[a]anthracene	0.067		0.040	0.0054	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Client Sample ID: 3011-17-B01 (0-1)

Lab Sample ID: 500-107641-4

Date Collected: 02/16/16 12:15

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.087		0.040	0.011	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Benzo[b]fluoranthene	0.16		0.040	0.0087	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Benzo[k]fluoranthene	0.057		0.040	0.012	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Benzo[a]pyrene	0.086		0.040	0.0078	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Indeno[1,2,3-cd]pyrene	0.041		0.040	0.010	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Dibenz(a,h)anthracene	0.0096	J	0.040	0.0078	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
Benzo[g,h,i]perylene	0.038	J	0.040	0.013	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	02/22/16 06:59	02/29/16 22:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	77		25 - 110	02/22/16 06:59	02/29/16 22:24	1
Phenol-d5	72		31 - 110	02/22/16 06:59	02/29/16 22:24	1
Nitrobenzene-d5	67		25 - 115	02/22/16 06:59	02/29/16 22:24	1
2-Fluorobiphenyl	71		25 - 119	02/22/16 06:59	02/29/16 22:24	1
2,4,6-Tribromophenol	38		35 - 137	02/22/16 06:59	02/29/16 22:24	1
Terphenyl-d14	71		36 - 134	02/22/16 06:59	02/29/16 22:24	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	☼	02/23/16 16:44	02/26/16 14:44	1
Arsenic	4.4		0.59	0.27	mg/Kg	☼	02/23/16 16:44	02/26/16 14:44	1
Barium	46		0.59	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 02:57	1
Beryllium	0.31		0.24	0.051	mg/Kg	☼	02/23/16 16:44	02/26/16 02:57	1
Boron	7.0		2.9	0.41	mg/Kg	☼	02/23/16 16:44	02/26/16 14:44	1
Cadmium	0.15		0.12	0.034	mg/Kg	☼	02/23/16 16:44	02/26/16 14:44	1
Calcium	120000	B	120	38	mg/Kg	☼	02/23/16 16:44	02/26/16 05:16	10
Chromium	10	B	0.59	0.10	mg/Kg	☼	02/23/16 16:44	02/26/16 02:57	1
Cobalt	5.4		0.29	0.066	mg/Kg	☼	02/23/16 16:44	02/26/16 14:44	1
Copper	14		0.59	0.13	mg/Kg	☼	02/23/16 16:44	02/26/16 02:57	1
Iron	8800	B	12	4.5	mg/Kg	☼	02/23/16 16:44	02/26/16 02:57	1
Lead	55		0.29	0.15	mg/Kg	☼	02/23/16 16:44	02/26/16 14:44	1
Magnesium	49000	B	5.9	2.4	mg/Kg	☼	02/23/16 16:44	02/26/16 02:57	1
Manganese	350		0.59	0.12	mg/Kg	☼	02/23/16 16:44	02/26/16 02:57	1
Nickel	12		0.59	0.16	mg/Kg	☼	02/23/16 16:44	02/26/16 14:44	1
Potassium	690		29	4.8	mg/Kg	☼	02/23/16 16:44	02/26/16 02:57	1
Selenium	<0.59		0.59	0.29	mg/Kg	☼	02/23/16 16:44	02/26/16 14:44	1
Silver	<0.29		0.29	0.069	mg/Kg	☼	02/23/16 16:44	02/26/16 02:57	1
Sodium	1700		59	7.8	mg/Kg	☼	02/23/16 16:44	02/26/16 02:57	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	02/23/16 16:44	02/26/16 14:44	1
Vanadium	14		0.29	0.086	mg/Kg	☼	02/23/16 16:44	02/26/16 02:57	1
Zinc	65		1.2	0.37	mg/Kg	☼	02/23/16 16:44	02/26/16 02:57	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.50		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 20:34	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 20:34	1
Boron	0.56		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 20:34	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Client Sample ID: 3011-17-B01 (0-1)

Lab Sample ID: 500-107641-4

Date Collected: 02/16/16 12:15

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	02/21/16 16:00	02/23/16 20:34	1
Chromium	<0.025		0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 20:34	1
Cobalt	<0.025		0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 20:34	1
Iron	<0.40		0.40	0.20	mg/L	-	02/21/16 16:00	02/23/16 20:34	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	02/21/16 16:00	02/23/16 20:34	1
Manganese	0.81		0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 20:34	1
Nickel	<0.025		0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 20:34	1
Selenium	<0.050		0.050	0.020	mg/L	-	02/21/16 16:00	02/23/16 20:34	1
Silver	<0.025		0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 20:34	1
Zinc	0.40	J B	0.50	0.020	mg/L	-	02/21/16 16:00	02/23/16 20:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	2.1		0.025	0.010	mg/L	-	02/23/16 09:20	02/25/16 03:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	02/21/16 16:00	02/22/16 19:25	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L	-	02/21/16 16:00	02/22/16 19:25	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	02/22/16 15:15	02/23/16 11:01	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016	J	0.018	0.0096	mg/Kg	☼	02/23/16 15:15	02/24/16 12:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.89		0.200	0.200	SU	-		02/19/16 17:14	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC 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.
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

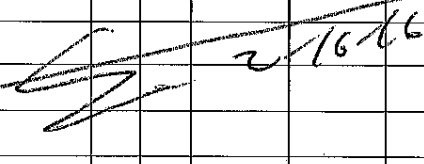
2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

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

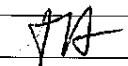
Lab Job #: 500-107641
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Total TAC		TAC/SP		TAC/SP		TAC/SP		Preservative Key	
EE		1009341-0008-01						Total TAC		TAC/SP		TAC/SP		TAC/SP		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		Lab Project #		Sampling		# of Containers		Matrix		Date		Time		Comments			
IL 30		5011844		Date		# of Containers		Matrix		Date		Time		Comments			
Project Location/State		Lab PM		Date		# of Containers		Matrix		Date		Time		Comments			
Icane County, IL		P. Wright		Date		# of Containers		Matrix		Date		Time		Comments			
Sampler		Lab PM		Date		# of Containers		Matrix		Date		Time		Comments			
S. Cooper		P. Wright		Date		# of Containers		Matrix		Date		Time		Comments			
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix											
3		3011-17-B02 (01)	2/16/16	1205	2	S	X	X	X	X	X						
4		3011-17-B01 (01)	2/16/16	1215	2	S	X	X	X	X	X						
																	

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	Company	Date	Time	Received By	Company	Date	Time
	EE	2/16/16	1530		JA	2/16/16	1230
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	JA	2/16/16	1715		JA-CH	2/17/16	0745
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:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107641-2

Login Number: 107641

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.8,2.5,3.2,3.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 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: FAP 347 (IL Route 38) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
47W 900 to 48W 500 blocks of IL 38 ISGS #3011-18 (Agricultural Land)

City: Maple Park State: IL Zip Code: 60151

County: Kane Township: Virgil and Kaneville

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

Latitude: 41.894513 Longitude: -88.55423
(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: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: 60196-1096 Phone: 847-705-4159

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

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 an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 347 (IL Route 38)

Latitude: 41.894513 Longitude: -88.55423

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 appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations (See Attachment A) were sampled within the construction zone adjacent to ISGS #3011-18 (Agricultural Land). Refer to PSI Report for ISGS #3011-18 (Agricultural Land) including Table 4-4, and Figures 4-3A&B and 4-4A&B.

- 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]:

See attached data summary table and associated laboratory data package J107641-3, J107641-2, J107641-4, and J107641-6.

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

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

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

Company Name: Ecology and Environment, Inc.
 Street Address: 33 West Monroe Street
 City: Chicago State: IL Zip Code: 60603
 Phone: 312-578-9243
 Neil J. Brown

Printed Name:

Neil J. Brown

Licensed Professional Engineer or Licensed Professional Geologist Signature:

3/17/16

Date:



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

Attachment A

ISGS# 3011-18 (Agricultural Land)

Analytical results from sample points collected at adjacent properties ISGS# 3011-17, ISGS# 3011-19, and ISGS# 3011-21 were used to delineate areas of impact.

III (a)

Soil sample points:

- 3011-18-B01
- 3011-18-B02
- 3011-18-B03
- 3011-18-B04
- 3011-18-B05
- 3011-18-B06
- 3011-18-B07
- 3011-18-B08
- 3011-18-B09
- 3011-18-B10
- 3011-18-B11
- 3011-17-B02
- 3011-19-B01
- 3011-21-B01

III (b)

Lab packages with associated sample locations

- J107641-3**
- 3011-18-B01
- 3011-18-B02
- 3011-18-B03
- 3011-18-B04
- 3011-18-B05
- 3011-18-B06
- 3011-18-B07
- 3011-18-B08
- 3011-18-B09
- 3011-18-B10
- 3011-18-B11

- J107641-2**
- 3011-17-B02

- J107641-4**
- 3011-19-B01

- J107641-6**
- 3011-21-B01




Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A

Key to Data Tables

- MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

Criteria Qualifiers and Shading

- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-18 (Agricultural Land)				Comparison Criteria			
	3011-18-B01		3011-18-B02	3011-18-B03	MACs			TACO
BORING	3011-18-B01 (0-1)		3011-18-B02 (0-1)	3011-18-B03 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE	3011-18-B01 (0-1)		3011-18-B02 (0-1)	3011-18-B03 (0-1)				
MATRIX	Soil	Soil	Soil	Soil				
DEPTH (feet)	0-1	0-1	0-1	0-1				
pH	8.42	8.51	8.21	8.44				
VOCs (mg/kg)								
2-Butanone (MEK)	ND U	ND U	0.0084	ND U	--	--	--	--
Acetone	ND U	ND U	0.038	ND U	25	--	--	--
SVOCs (mg/kg)								
Acenaphthylene	ND U	ND U	ND U	0.0057 J	--	--	--	--
Anthracene	ND U	ND U	0.0083 J	0.0072 J	12,000	--	--	--
Benzo[a]anthracene	0.041	0.032 J	0.047	0.04	0.9	1.8	1.1	--
Benzo[a]pyrene	0.069	0.039	0.094 †	0.046	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.097	0.077	0.16	0.093	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.043	0.024 J	0.085	0.022 J	--	--	--	--
Benzo[k]fluoranthene	0.05	0.025 J	0.058	0.03 J	9	--	--	--
Chrysene	0.053	0.042	0.079	0.054	88	--	--	--
Dibenzo(a,h)anthracene	ND U	ND U	ND U	ND U	0.09	0.42	0.2	--
Fluoranthene	0.059	0.073	0.095	0.084	3,100	--	--	--
Fluorene	ND U	ND U	ND U	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	ND U	0.022 J	0.054	0.022 J	0.9	1.6	0.9	--
Phenanthrene	0.033 J	0.026 J	0.039	0.042	--	--	--	--
Pyrene	0.12	0.088	0.16	0.11	2,300	--	--	--
Inorganics (mg/kg)								
Antimony	ND U	ND U	ND U	ND U	5	--	--	--
Arsenic	4.7	3	3.9	3.3	11.3	13	--	--
Barium	38	25	42	47	1,500	--	--	--
Beryllium	0.35	0.25	0.39	0.33	22	--	--	--
Boron	6.6	6.3	5.2	6.9	40	--	--	--
Cadmium	0.18	0.18	0.19	0.15	5.2	--	--	--
Calcium	110,000	150,000	110,000	110,000	--	--	--	--
Chromium	10	8.3	11	8.6	21	--	--	--
Cobalt	5.5	4.1	5.2	4.5	20	--	--	--
Copper	13	12	13	12	2,900	--	--	--
Iron	9,000	7,800	10,000	8,500	15,000	15,900	--	--
Lead	76	68	77	42	107	--	--	--
Magnesium	53,000	88,000	46,000	51,000	325,000	--	--	--
Manganese	370	330	300	320	630	636	--	--
Mercury	0.017 J	0.016 J	0.013 J	0.019	0.89	--	--	--
Nickel	12	9.1	13	10	100	--	--	--
Potassium	700	510	660	640	--	--	--	--
Selenium	ND U	ND U	ND U	ND U	1.3	--	--	--
Sodium	1,300	1,000	1,200	1,300	--	--	--	--
Vanadium	14	12	15	13	550	--	--	--
Zinc	62	51	68	54	5,100	--	--	--
TCLP Metals (mg/L)								
Barium	0.31 J	0.27 J	0.48 J	0.46 J	--	--	--	2
Boron	0.53	0.5	0.47 J	0.61	--	--	--	2
Chromium	ND U	ND U	ND U	ND U	--	--	--	0.1
Cobalt	ND U	ND U	ND U	ND U	--	--	--	1
Lead	ND U	ND U	0.011 L	ND U	--	--	--	0.0075
Manganese	0.25 J L	0.97 J L	4 L	0.36 L	--	--	--	0.15
Nickel	ND U	ND U	0.012 J	ND U	--	--	--	0.1
Zinc	ND U	0.13 J	0.17 J	0.14 J	--	--	--	5
SPLP Metals (mg/L)								
Lead	NA	NA	0.23 L	NA	--	--	--	0.0075
Manganese	0.8 L	0.91 L	0.63 L	0.76 L	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-18 (Agricultural Land)				Comparison Criteria			
	3011-18-B04	3011-18-B05	3011-18-B06	3011-18-B07	MACs			TACO
BORING	3011-18-B04 (0-1)	3011-18-B05 (0-1)	3011-18-B06 (0-1)	3011-18-B07 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE								
MATRIX	Soil	Soil	Soil	Soil				
DEPTH (feet)	0-1	0-1	0-1	0-1				
pH	8.67	8.36	7.86	8.47				
VOCs (mg/kg)								
2-Butanone (MEK)	ND U	ND U	ND U	ND U	--	--	--	--
Acetone	ND U	ND U	ND U	ND U	25	--	--	--
SVOCs (mg/kg)								
Acenaphthylene	ND U	ND U	0.0086 J	ND U	--	--	--	--
Anthracene	0.01 J	0.014 J	0.018 J	0.0071 J	12,000	--	--	--
Benzo[a]anthracene	0.043	0.071	0.083	0.036	0.9	1.8	1.1	--
Benzo[a]pyrene	0.051	0.096 †	0.11 †	0.044	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.1	0.17	0.2	0.082	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.025 J	0.054	0.052	0.023 J	--	--	--	--
Benzo[k]fluoranthene	0.031 J	0.07	0.07	0.028 J	9	--	--	--
Chrysene	0.056	0.092	0.11	0.046	88	--	--	--
Dibenzo(a,h)anthracene	ND U	0.011 J	0.0094 J	ND U	0.09	0.42	0.2	--
Fluoranthene	0.11	0.15	0.2	0.073	3,100	--	--	--
Fluorene	ND U	ND U	0.0055 J	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.026 J	0.053	0.046	0.022 J	0.9	1.6	0.9	--
Phenanthrene	0.061	0.064	0.093	0.038	--	--	--	--
Pyrene	0.12	0.23	0.21	0.11	2,300	--	--	--
Inorganics (mg/kg)								
Antimony	ND U	ND U	ND U	ND U	5	--	--	--
Arsenic	3.5	2.6	4.5	2.9	11.3	13	--	--
Barium	35	23	41	28	1,500	--	--	--
Beryllium	0.26	0.23	0.41	0.2 J	22	--	--	--
Boron	6.9	7.9	7	7	40	--	--	--
Cadmium	0.15	0.099 J	0.17	0.09 J	5.2	--	--	--
Calcium	140,000	160,000	84,000	160,000	--	--	--	--
Chromium	9.1	7.7	11	7.1	21	--	--	--
Cobalt	4.4	3.3	6	3.8	20	--	--	--
Copper	11	12	17	14	2,900	--	--	--
Iron	7,600	7,300	10,000	7,500	15,000	15,900	--	--
Lead	73	33	75	45	107	--	--	--
Magnesium	84,000	95,000	42,000	93,000	325,000	--	--	--
Manganese	270	250	360	260	630	636	--	--
Mercury	0.016 J	ND U	0.02	ND U	0.89	--	--	--
Nickel	11	8.3	13	8.5	100	--	--	--
Potassium	590	490	740	490	--	--	--	--
Selenium	ND U	0.29 J	0.33 J	ND U	1.3	--	--	--
Sodium	1,100	1,200	1,100	1,300	--	--	--	--
Vanadium	12	9.9	16	10	550	--	--	--
Zinc	52	41	74	36	5,100	--	--	--
TCLP Metals (mg/L)								
Barium	0.41 J	0.33 J	0.34 J	0.43 J	--	--	--	2
Boron	0.51	0.59	0.49 J	0.54	--	--	--	2
Chromium	ND U	ND U	ND U	ND U	--	--	--	0.1
Cobalt	ND U	0.01 J	ND U	0.011 J	--	--	--	1
Lead	ND U	ND U	0.0084 L	ND U	--	--	--	0.0075
Manganese	1 L	2.3 L	0.62 L	2.1 L	--	--	--	0.15
Nickel	ND U	0.012 J	ND U	0.016 J	--	--	--	0.1
Zinc	0.15 J	0.27 J	0.35 J	0.63	--	--	--	5
SPLP Metals (mg/L)								
Lead	NA	NA	0.12 L	NA	--	--	--	0.0075
Manganese	0.5 L	0.28 L	0.39 L	0.082	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-18 (Agricultural Land)				Comparison Criteria			
	3011-18-B08	3011-18-B09	3011-18-B10	3011-18-B11	MACs			TACO
BORING	3011-18-B08 (0-1)	3011-18-B09 (0-1)	3011-18-B10 (0-1)	3011-18-B11 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE								
MATRIX	Soil	Soil	Soil	Soil				
DEPTH (feet)	0-1	0-1	0-1	0-1				
pH	8.61	8.55	8.68	8.7				
VOCs (mg/kg)								
2-Butanone (MEK)	ND U	ND U	ND U	ND U	--	--	--	--
Acetone	ND U	ND U	ND U	ND U	25	--	--	--
SVOCs (mg/kg)								
Acenaphthylene	ND U	ND U	ND U	ND U	--	--	--	--
Anthracene	0.017 J	0.014 J	ND U	ND U	12,000	--	--	--
Benzo[a]anthracene	0.083	0.076	0.016 J	0.016 J	0.9	1.8	1.1	--
Benzo[a]pyrene	0.097 †	0.087	0.02 J	0.021 J	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.2	0.15	0.037	0.04	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.047	0.043	ND U	0.018 J	--	--	--	--
Benzo[k]fluoranthene	0.059	0.059	0.016 J	0.018 J	9	--	--	--
Chrysene	0.11	0.097	0.021 J	0.021 J	88	--	--	--
Dibenzo(a,h)anthracene	0.0082 J	0.0096 J	ND U	ND U	0.09	0.42	0.2	--
Fluoranthene	0.21	0.16	0.028 J	0.03 J	3,100	--	--	--
Fluorene	ND U	ND U	ND U	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.054	0.046	ND U	0.018 J	0.9	1.6	0.9	--
Phenanthrene	0.088	0.067	0.016 J	0.016 J	--	--	--	--
Pyrene	0.18	0.24	0.047	0.046	2,300	--	--	--
Inorganics (mg/kg)								
Antimony	0.53 J	ND U	ND U	ND U	5	--	--	--
Arsenic	3.1	4.6	5.3	4.8	11.3	13	--	--
Barium	23	36	35	46	1,500	--	--	--
Beryllium	0.18 J	0.42	0.37	0.35	22	--	--	--
Boron	8.5	4.7	5.7	5	40	--	--	--
Cadmium	0.11 J	0.16	0.094 J	0.14	5.2	--	--	--
Calcium	180,000	96,000	98,000	90,000	--	--	--	--
Chromium	180 †	10	9.6	9.7	21	--	--	--
Cobalt	5.2	6.4	6.8	6.2	20	--	--	--
Copper	15	13	13	11	2,900	--	--	--
Iron	8,500	10,000	11,000	9,500	15,000	15,900	--	--
Lead	130 †	63	29	33	107	--	--	--
Magnesium	110,000	40,000	39,000	37,000	325,000	--	--	--
Manganese	350	380	340	350	630	636	--	--
Mercury	ND U	0.014 J	0.019	0.02	0.89	--	--	--
Nickel	110 †	13	15	12	100	--	--	--
Potassium	560	650	860	690	--	--	--	--
Selenium	ND U	ND U	ND U	ND U	1.3	--	--	--
Sodium	750	1,400	1,100	1,300	--	--	--	--
Vanadium	10	15	15	14	550	--	--	--
Zinc	48	67	56	48	5,100	--	--	--
TCLP Metals (mg/L)								
Barium	0.31 J	0.26 J	0.41 J	0.42 J	--	--	--	2
Boron	0.57	0.5	0.57	0.22 J	--	--	--	2
Chromium	ND U	ND U	ND U	ND U	--	--	--	0.1
Cobalt	ND U	ND U	0.017 J	0.018 J	--	--	--	1
Lead	ND U	ND U	ND U	ND U	--	--	--	0.0075
Manganese	0.53 L	0.9 L	5.7 L	4.2 L	--	--	--	0.15
Nickel	ND U	ND U	0.016 J	0.013 J	--	--	--	0.1
Zinc	0.84	0.24 J	0.37 J	0.21 J	--	--	--	5
SPLP Metals (mg/L)								
Lead	NA	NA	NA	NA	--	--	--	0.0075
Manganese	0.43 L	1.2 L	1.4 L	0.92 L	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3011-17 (Farmstead)	Comparison Criteria			
BORING	3011-17-B02	MACs			TACO
SAMPLE	3011-17-B02 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.6				
VOCs (None Detected)					
SVOCs (mg/kg)					
Acenaphthylene	0.0062 J	--	--	--	--
Anthracene	0.0097 J	12,000	--	--	--
Benzo[a]anthracene	0.062	0.9	1.8	1.1	--
Benzo[a]pyrene	0.075	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.13	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.037	--	--	--	--
Benzo[k]fluoranthene	0.048	9	--	--	--
Chrysene	0.078	88	--	--	--
Dibenzo(a,h)anthracene	ND U	0.09	0.42	0.2	--
Fluoranthene	0.13	3,100	--	--	--
Indeno[1,2,3-cd]pyrene	0.043	0.9	1.6	0.9	--
Phenanthrene	0.047	--	--	--	--
Pyrene	0.099	2,300	--	--	--
Inorganics (mg/kg)					
Arsenic	1.6	11.3	13	--	--
Barium	16	1,500	--	--	--
Beryllium	0.16 J	22	--	--	--
Boron	8.5	40	--	--	--
Cadmium	0.088 J	5.2	--	--	--
Calcium	180,000	--	--	--	--
Chromium	7.5	21	--	--	--
Cobalt	2.3	20	--	--	--
Copper	14	2,900	--	--	--
Iron	5,300	15,000	15,900	--	--
Lead	48	107	--	--	--
Magnesium	110,000	325,000	--	--	--
Manganese	220	630	636	--	--
Mercury	ND U	0.89	--	--	--
Nickel	6.6	100	--	--	--
Potassium	460	--	--	--	--
Sodium	660	--	--	--	--
Vanadium	8.9	550	--	--	--
Zinc	34	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.18 J	--	--	--	2
Boron	0.61	--	--	--	2
Lead	0.015 L	--	--	--	0.0075
Manganese	1.3 L	--	--	--	0.15
Nickel	0.014 J	--	--	--	0.1
Zinc	1.1	--	--	--	5
SPLP Metals (mg/L)					
Lead	0.011 L	--	--	--	0.0075
Manganese	0.013 J	--	--	--	0.15

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A
CONTAMINANTS OF CONCERN

SITE	ISGS #3011-19 (Residence)	Comparison Criteria			
BORING	3011-19-B01	MACs			TACO
SAMPLE	3011-19-B01 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.42				
VOCs (None Detected)					
SVOCs (mg/kg)					
Anthracene	0.013 J	12,000	--	--	--
Benzo[a]anthracene	0.061	0.9	1.8	1.1	--
Benzo[a]pyrene	0.075	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.12	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.069	--	--	--	--
Benzo[k]fluoranthene	0.033 J	9	--	--	--
Chrysene	0.08	88	--	--	--
Fluoranthene	0.082	3,100	--	--	--
Phenanthrene	0.056	--	--	--	--
Pyrene	0.2	2,300	--	--	--
Inorganics (mg/kg)					
Antimony	0.23 J	5	--	--	--
Arsenic	3	11.3	13	--	--
Barium	29	1,500	--	--	--
Beryllium	0.3	22	--	--	--
Boron	5.9	40	--	--	--
Cadmium	0.11	5.2	--	--	--
Calcium	190,000	--	--	--	--
Chromium	8.5	21	--	--	--
Cobalt	3.8	20	--	--	--
Copper	8.2	2,900	--	--	--
Iron	6,300	15,000	15,900	--	--
Lead	51	107	--	--	--
Magnesium	120,000	325,000	--	--	--
Manganese	250	630	636	--	--
Mercury	0.021	0.89	--	--	--
Nickel	7.7	100	--	--	--
Potassium	570	--	--	--	--
Sodium	900	--	--	--	--
Vanadium	11	550	--	--	--
Zinc	54	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.39 J	--	--	--	2
Boron	0.37 J	--	--	--	2
Manganese	0.98 L	--	--	--	0.15
Zinc	0.54	--	--	--	5
SPLP Metals (mg/L)					
Manganese	0.86 L	--	--	--	0.15

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-141-15; WorkOrder #08A
CONTAMINANTS OF CONCERN

SITE	ISGS #3011-21 (Residence)	Comparison Criteria			
BORING	3011-21-B01	MACs			TACO
SAMPLE	3011-21-B01 (0-1)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (feet)	0-1				
pH	8.58				
VOCs (None Detected)					
SVOCs (mg/kg)					
2-Methylnaphthalene	0.011 J	--	--	--	--
Acenaphthylene	0.008 J	--	--	--	--
Anthracene	0.017 J	12,000	--	--	--
Benzo[a]anthracene	0.11	0.9	1.8	1.1	--
Benzo[a]pyrene	0.15 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.24	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.17	--	--	--	--
Benzo[k]fluoranthene	0.12	9	--	--	--
Bis(2-ethylhexyl) phthalate	0.1 J	46	--	--	--
Chrysene	0.15	88	--	--	--
Dibenzo(a,h)anthracene	0.047	0.09	0.42	0.2	--
Di-n-butyl phthalate	0.23	2,300	--	--	--
Fluoranthene	0.16	3,100	--	--	--
Indeno[1,2,3-cd]pyrene	0.15	0.9	1.6	0.9	--
Naphthalene	0.0075 J	1.8	--	--	--
Phenanthrene	0.079	--	--	--	--
Pyrene	0.34	2,300	--	--	--
Inorganics (mg/kg)					
Arsenic	3.6	11.3	13	--	--
Barium	36	1,500	--	--	--
Beryllium	0.31	22	--	--	--
Boron	6.3	40	--	--	--
Cadmium	0.24	5.2	--	--	--
Calcium	140,000	--	--	--	--
Chromium	11	21	--	--	--
Cobalt	4.2	20	--	--	--
Copper	14	2,900	--	--	--
Iron	8,300	15,000	15,900	--	--
Lead	150 †	107	--	--	--
Magnesium	55,000	325,000	--	--	--
Manganese	340	630	636	--	--
Mercury	0.015 J	0.89	--	--	--
Nickel	11	100	--	--	--
Potassium	560	--	--	--	--
Sodium	1,300	--	--	--	--
Vanadium	12	550	--	--	--
Zinc	79	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.31 J	--	--	--	2
Boron	0.27 J	--	--	--	2
Lead	ND U	--	--	--	0.0075
Manganese	0.78 L	--	--	--	0.15
Nickel	ND U	--	--	--	0.1
Zinc	0.25 J	--	--	--	5
SPLP Metals (mg/L)					
Manganese	0.65 L	--	--	--	0.15

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: 500-107641-2
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
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Attn: Mr. Dean Tiebout

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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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Job ID: 500-107641-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107641-2

Comments

No additional comments.

Receipt

The samples were received on 2/17/2016 7:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.5° C, 2.8° C, 3.2° C and 3.5° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-323872: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: (500-107641-E-1-D MS) and (500-107641-E-1-E MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324170 and analytical batch 500-324562 contained Calcium and Magnesium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Client Sample ID: 3011-17-B02 (0-1)

Lab Sample ID: 500-107641-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0062	J	0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.047		0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0097	J	0.036	0.0061	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.13		0.036	0.0068	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.099		0.036	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.062		0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.078		0.036	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.13		0.036	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.048		0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.075		0.036	0.0071	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.043		0.036	0.0095	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.037		0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	1.6		0.52	0.24	mg/Kg	1	☼	6010B	Total/NA
Barium	16		0.52	0.095	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.16	J	0.21	0.045	mg/Kg	1	☼	6010B	Total/NA
Boron	8.5		2.6	0.36	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.088	J	0.10	0.030	mg/Kg	1	☼	6010B	Total/NA
Calcium	180000	B	100	33	mg/Kg	10	☼	6010B	Total/NA
Chromium	7.5	B	0.52	0.089	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.3		0.26	0.058	mg/Kg	1	☼	6010B	Total/NA
Copper	14		0.52	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	5300	B	10	4.0	mg/Kg	1	☼	6010B	Total/NA
Lead	48		0.26	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	110000	B	52	21	mg/Kg	10	☼	6010B	Total/NA
Manganese	220		0.52	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	6.6		0.52	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	460		26	4.2	mg/Kg	1	☼	6010B	Total/NA
Sodium	660		52	6.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	8.9		0.26	0.075	mg/Kg	1	☼	6010B	Total/NA
Zinc	34		1.0	0.33	mg/Kg	1	☼	6010B	Total/NA
Barium	0.18	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.61		0.50	0.050	mg/L	1		6010B	TCLP
Lead	0.015		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	1.3		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.014	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	1.1	B	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.011		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.013	J	0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.60		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107641-3	3011-17-B02 (0-1)	Solid	02/16/16 12:05	02/17/16 07:45

1

2

3

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Client Sample ID: 3011-17-B02 (0-1)

Lab Sample ID: 500-107641-3

Date Collected: 02/16/16 12:05

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0032	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Benzene	<0.0042		0.0042	0.00092	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Bromodichloromethane	<0.0042		0.0042	0.00070	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Bromoform	<0.0042		0.0042	0.00085	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Bromomethane	<0.0042	*	0.0042	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
2-Butanone (MEK)	<0.0042		0.0042	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Carbon disulfide	<0.0042		0.0042	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Carbon tetrachloride	<0.0042		0.0042	0.00089	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Chlorobenzene	<0.0042		0.0042	0.00098	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Chloroethane	<0.0042		0.0042	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Chloroform	<0.0042		0.0042	0.00081	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Chloromethane	<0.0042		0.0042	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
cis-1,2-Dichloroethene	<0.0042		0.0042	0.00085	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
cis-1,3-Dichloropropene	<0.0042		0.0042	0.00095	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Dibromochloromethane	<0.0042		0.0042	0.00048	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
1,1-Dichloroethane	<0.0042		0.0042	0.00086	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
1,2-Dichloroethane	<0.0042		0.0042	0.00062	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
1,1-Dichloroethene	<0.0042		0.0042	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
1,2-Dichloropropane	<0.0042		0.0042	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
1,3-Dichloropropane, Total	<0.0042		0.0042	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Ethylbenzene	<0.0042		0.0042	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Methylene Chloride	<0.0042		0.0042	0.0031	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.00086	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Methyl tert-butyl ether	<0.0042		0.0042	0.00098	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Styrene	<0.0042		0.0042	0.00097	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
1,1,2,2-Tetrachloroethane	<0.0042		0.0042	0.00066	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Tetrachloroethene	<0.0042		0.0042	0.00086	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Toluene	<0.0042		0.0042	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
trans-1,2-Dichloroethene	<0.0042		0.0042	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
trans-1,3-Dichloropropene	<0.0042		0.0042	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
1,1,1-Trichloroethane	<0.0042		0.0042	0.00096	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
1,1,2-Trichloroethane	<0.0042		0.0042	0.00080	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Trichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Vinyl acetate	<0.0042		0.0042	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Vinyl chloride	<0.0042		0.0042	0.00099	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1
Xylenes, Total	<0.0083		0.0083	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 16:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 122	02/17/16 08:40	02/22/16 16:28	1
Dibromofluoromethane	108		75 - 120	02/17/16 08:40	02/22/16 16:28	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	02/17/16 08:40	02/22/16 16:28	1
Toluene-d8 (Surr)	109		75 - 122	02/17/16 08:40	02/22/16 16:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.081	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Client Sample ID: 3011-17-B02 (0-1)

Lab Sample ID: 500-107641-3

Date Collected: 02/16/16 12:05

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Hexachloroethane	<0.18		0.18	0.056	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2-Chlorophenol	<0.18		0.18	0.063	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Hexachlorobutadiene	<0.18		0.18	0.058	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2,4,6-Trichlorophenol	<0.36		0.36	0.13	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2,4,5-Trichlorophenol	<0.36		0.36	0.084	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2-Methylnaphthalene	<0.036		0.036	0.0067	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2-Chloronaphthalene	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2-Nitrophenol	<0.36		0.36	0.087	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Acenaphthylene	0.0062	J	0.036	0.0048	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Acenaphthene	<0.036		0.036	0.0066	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Fluorene	<0.036		0.036	0.0052	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.29	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Phenanthrene	0.047		0.036	0.0051	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Anthracene	0.0097	J	0.036	0.0061	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Carbazole	<0.18		0.18	0.092	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Fluoranthene	0.13		0.036	0.0068	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Pyrene	0.099		0.036	0.0073	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Butyl benzyl phthalate	<0.18		0.18	0.070	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Benzo[a]anthracene	0.062		0.036	0.0049	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Client Sample ID: 3011-17-B02 (0-1)

Lab Sample ID: 500-107641-3

Date Collected: 02/16/16 12:05

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.078		0.036	0.010	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Di-n-octyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Benzo[b]fluoranthene	0.13		0.036	0.0079	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Benzo[k]fluoranthene	0.048		0.036	0.011	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Benzo[a]pyrene	0.075		0.036	0.0071	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Indeno[1,2,3-cd]pyrene	0.043		0.036	0.0095	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0071	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
Benzo[g,h,i]perylene	0.037		0.036	0.012	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	02/22/16 06:59	02/29/16 21:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	79		25 - 110	02/22/16 06:59	02/29/16 21:54	1
Phenol-d5	82		31 - 110	02/22/16 06:59	02/29/16 21:54	1
Nitrobenzene-d5	65		25 - 115	02/22/16 06:59	02/29/16 21:54	1
2-Fluorobiphenyl	70		25 - 119	02/22/16 06:59	02/29/16 21:54	1
2,4,6-Tribromophenol	54		35 - 137	02/22/16 06:59	02/29/16 21:54	1
Terphenyl-d14	74		36 - 134	02/22/16 06:59	02/29/16 21:54	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.21	mg/Kg	☼	02/23/16 16:44	02/26/16 14:39	1
Arsenic	1.6		0.52	0.24	mg/Kg	☼	02/23/16 16:44	02/26/16 14:39	1
Barium	16		0.52	0.095	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Beryllium	0.16	J	0.21	0.045	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Boron	8.5		2.6	0.36	mg/Kg	☼	02/23/16 16:44	02/26/16 14:39	1
Cadmium	0.088	J	0.10	0.030	mg/Kg	☼	02/23/16 16:44	02/26/16 14:39	1
Calcium	180000	B	100	33	mg/Kg	☼	02/23/16 16:44	02/26/16 05:11	10
Chromium	7.5	B	0.52	0.089	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Cobalt	2.3		0.26	0.058	mg/Kg	☼	02/23/16 16:44	02/26/16 14:39	1
Copper	14		0.52	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Iron	5300	B	10	4.0	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Lead	48		0.26	0.13	mg/Kg	☼	02/23/16 16:44	02/26/16 14:39	1
Magnesium	110000	B	52	21	mg/Kg	☼	02/23/16 16:44	02/26/16 05:11	10
Manganese	220		0.52	0.10	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Nickel	6.6		0.52	0.14	mg/Kg	☼	02/23/16 16:44	02/26/16 14:39	1
Potassium	460		26	4.2	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Selenium	<0.52		0.52	0.26	mg/Kg	☼	02/23/16 16:44	02/26/16 14:39	1
Silver	<0.26		0.26	0.060	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Sodium	660		52	6.8	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Thallium	<0.52		0.52	0.25	mg/Kg	☼	02/23/16 16:44	02/26/16 14:39	1
Vanadium	8.9		0.26	0.075	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1
Zinc	34		1.0	0.33	mg/Kg	☼	02/23/16 16:44	02/26/16 02:51	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.18	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 20:12	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 20:12	1
Boron	0.61		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 20:12	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Client Sample ID: 3011-17-B02 (0-1)

Lab Sample ID: 500-107641-3

Date Collected: 02/16/16 12:05

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/21/16 16:00	02/23/16 20:12	1
Chromium	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 20:12	1
Cobalt	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 20:12	1
Iron	<0.40		0.40	0.20	mg/L		02/21/16 16:00	02/23/16 20:12	1
Lead	0.015		0.0075	0.0075	mg/L		02/21/16 16:00	02/23/16 20:12	1
Manganese	1.3		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 20:12	1
Nickel	0.014	J	0.025	0.010	mg/L		02/21/16 16:00	02/23/16 20:12	1
Selenium	<0.050		0.050	0.020	mg/L		02/21/16 16:00	02/23/16 20:12	1
Silver	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 20:12	1
Zinc	1.1	B	0.50	0.020	mg/L		02/21/16 16:00	02/23/16 20:12	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.011		0.0075	0.0075	mg/L		02/23/16 09:20	02/25/16 02:54	1
Manganese	0.013	J	0.025	0.010	mg/L		02/23/16 09:20	02/25/16 02:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/21/16 16:00	02/22/16 19:21	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		02/21/16 16:00	02/22/16 19:21	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/16 15:15	02/23/16 10:59	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.018		0.018	0.0093	mg/Kg	☼	02/23/16 15:15	02/24/16 12:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.60		0.200	0.200	SU			02/19/16 17:04	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC 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.
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-2

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

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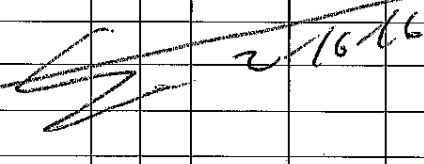
2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

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 #: 500-107641
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Total TAC		TAC/SP		TAC/SP		TAC/SP		Preservative Key	
EE		1009341-0008-01						Total TAC		TAC/SP		TAC/SP		TAC/SP		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		Lab Project #		Sampling		# of Containers										Comments	
IL 30		5001844		Date Time		Matrix											
Project Location/State		Lab PM															
Kane County, IL		P. Wright															
Sampler																	
S. Cooper																	
3	MS/MSD	Sample ID	2/16/16	1205	2	1	X	X	X	X	X						
4		3011-17-B02 (01)	2/16/16	1215	2	1	X	X	X	X	X						
		3011-17-B01 (01)	2/16/16	1215	2	1	X	X	X	X	X						
																	

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 <i>[Signature]</i>	Company EE	Date 2/16/16	Time 1530	Received By <i>[Signature]</i>	Company TA	Date 2/16/16	Time 1230
Relinquished By <i>[Signature]</i>	Company TA	Date 2/16/16	Time 1715	Received By <i>[Signature]</i>	Company TA-CHT	Date 2/17/16	Time 0745
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: *[Signature]*
 Shipped: _____
 Hand Delivered: _____

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

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107641-2

Login Number: 107641

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.8,2.5,3.2,3.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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ANALYTICAL REPORT

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

TestAmerica Job ID: 500-107641-3
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/1/2016 5:24:43 PM
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Designee for
Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

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results through
TotalAccess

Have a Question?



Visit us at:
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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Job ID: 500-107641-3

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107641-3

Comments

No additional comments.

Receipt

The samples were received on 2/17/2016 7:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.5° C, 2.8° C, 3.2° C and 3.5° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-323872: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: The following analyte recovered outside control limits for the LCS associated with 500-324044: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-18-B01 (0-1) (500-107641-9), 3011-18-B05 (0-1) (500-107641-12), 3011-18-B07 (0-1) (500-107641-13), 3011-18-B10 (0-1) (500-107641-15), 3011-18-B11 (0-1) (500-107641-16), (500-107641-E-1-D MS) and (500-107641-E-1-E MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324170 and analytical batch 500-324562 contained Calcium and Magnesium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 6020A: The continuing calibration verification (CCV) associated with batch 500-324078, at lines 88 and 92 recovered above the upper control limit for Thallium. The affected samples were 500-107641-11 through 20. Also the CCVL at line 94 was outside the upper control limit for Thallium. The samples associated with these CCV and CCVL were non-detects for the affected analytes, therefore the samples were reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B08 (0-1)

Lab Sample ID: 500-107641-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.088		0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.017	J	0.039	0.0065	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.21		0.039	0.0072	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.18		0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.083		0.039	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.11		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.20		0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.059		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.097		0.039	0.0075	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.054		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.0082	J	0.039	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.047		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.53	J	1.2	0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	3.1		0.59	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	23		0.59	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.18	J	0.23	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	8.5		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11	J	0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	180000	B	120	38	mg/Kg	10	☼	6010B	Total/NA
Chromium	180	B	0.59	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.2		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	15		0.59	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	8500	B	12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	130		0.29	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	110000	B	59	24	mg/Kg	10	☼	6010B	Total/NA
Manganese	350		0.59	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	110		0.59	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	560		29	4.8	mg/Kg	1	☼	6010B	Total/NA
Sodium	750		59	7.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	10		0.29	0.086	mg/Kg	1	☼	6010B	Total/NA
Zinc	48		1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.57		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.53		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.84	B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.43		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.61		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-18-B06 (0-1)

Lab Sample ID: 500-107641-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0086	J	0.039	0.0051	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0055	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.093		0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.018	J	0.039	0.0065	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.20		0.039	0.0072	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.21		0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.083		0.039	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.11		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.20		0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B06 (0-1) (Continued)

Lab Sample ID: 500-107641-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[k]fluoranthene	0.070		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.11		0.039	0.0075	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.046		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.0094	J	0.039	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.052		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.5		0.57	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	41		0.57	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.41		0.23	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	7.0		2.9	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17		0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	84000	B	110	37	mg/Kg	10	☼	6010B	Total/NA
Chromium	11	B	0.57	0.098	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.0		0.29	0.064	mg/Kg	1	☼	6010B	Total/NA
Copper	17		0.57	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	10000	B	11	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	75		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	42000	B	5.7	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	360		0.57	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.57	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	740		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.33	J	0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Sodium	1100		57	7.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.29	0.083	mg/Kg	1	☼	6010B	Total/NA
Zinc	74		1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.34	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.49	J	0.50	0.050	mg/L	1		6010B	TCLP
Lead	0.0084		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	0.62		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.35	J B	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.12		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.39		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.020		0.020	0.011	mg/Kg	1	☼	7471B	Total/NA
pH	7.86		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-18-B04 (0-1)

Lab Sample ID: 500-107641-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.061		0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.010	J	0.036	0.0061	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.11		0.036	0.0068	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.12		0.036	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.043		0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.056		0.036	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.10		0.036	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.031	J	0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.051		0.036	0.0071	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.026	J	0.036	0.0095	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.025	J	0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.5		0.53	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	35		0.53	0.098	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B04 (0-1) (Continued)

Lab Sample ID: 500-107641-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.26		0.21	0.046	mg/Kg	1	☼	6010B	Total/NA
Boron	6.9		2.7	0.37	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.15		0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	140000	B	110	34	mg/Kg	10	☼	6010B	Total/NA
Chromium	9.1	B	0.53	0.092	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.4		0.27	0.060	mg/Kg	1	☼	6010B	Total/NA
Copper	11		0.53	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	7600	B	11	4.1	mg/Kg	1	☼	6010B	Total/NA
Lead	73		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	84000	B	53	22	mg/Kg	10	☼	6010B	Total/NA
Manganese	270		0.53	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	11		0.53	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	590		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Sodium	1100		53	7.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.27	0.078	mg/Kg	1	☼	6010B	Total/NA
Zinc	52		1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.41	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.51		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.0		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.15	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.50		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.016	J	0.018	0.0095	mg/Kg	1	☼	7471B	Total/NA
pH	8.67		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-18-B02 (0-1)

Lab Sample ID: 500-107641-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.038		0.016	0.0032	mg/Kg	1	☼	8260B	Total/NA
2-Butanone (MEK)	0.0084		0.0041	0.0015	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.039		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0083	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.095		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.16		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.047		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.079		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.16		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.058		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.094		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.054		0.038	0.0099	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.085		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.9		0.55	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	42		0.55	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.39		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	5.2		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.19		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	110000	B	110	36	mg/Kg	10	☼	6010B	Total/NA
Chromium	11	B	0.55	0.095	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.2		0.28	0.063	mg/Kg	1	☼	6010B	Total/NA
Copper	13		0.55	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	10000	B	11	4.3	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B02 (0-1) (Continued)

Lab Sample ID: 500-107641-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	77		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	46000	B	5.5	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	300		0.55	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	660		28	4.5	mg/Kg	1	☼	6010B	Total/NA
Sodium	1200		55	7.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.28	0.081	mg/Kg	1	☼	6010B	Total/NA
Zinc	68		1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.48	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.47	J	0.50	0.050	mg/L	1		6010B	TCLP
Lead	0.011		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	4.0		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.17	J B	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.23		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.63		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.013	J	0.018	0.0094	mg/Kg	1	☼	7471B	Total/NA
pH	8.21		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-18-B01 (0-1)

Lab Sample ID: 500-107641-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.033	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.059		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.12		0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.041		0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.053		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.097		0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.050		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.069		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.043		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.7		0.60	0.28	mg/Kg	1	☼	6010B	Total/NA
Barium	38		0.60	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.35		0.24	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	6.6		3.0	0.42	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18		0.12	0.035	mg/Kg	1	☼	6010B	Total/NA
Calcium	110000	B	120	38	mg/Kg	10	☼	6010B	Total/NA
Chromium	10	B	0.60	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.5		0.30	0.068	mg/Kg	1	☼	6010B	Total/NA
Copper	13		0.60	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	9000	B	12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	76		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	53000	B	6.0	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	370		0.60	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	12		0.60	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	700		30	4.9	mg/Kg	1	☼	6010B	Total/NA
Sodium	1300		60	7.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.30	0.087	mg/Kg	1	☼	6010B	Total/NA
Zinc	62		1.2	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B01 (0-1) (Continued)

Lab Sample ID: 500-107641-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.53		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.25		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.093	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.80		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.017	J	0.019	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.42		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-18-B01 (0-1)D

Lab Sample ID: 500-107641-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.026	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.073		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.088		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.032	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.042		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.077		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.025	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.039		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.022	J	0.038	0.0099	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.024	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.0		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	25		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.25		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	6.3		2.9	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18		0.12	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	150000	B	120	37	mg/Kg	10	☼	6010B	Total/NA
Chromium	8.3	B	0.58	0.099	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.1		0.29	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	12		0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	7800	B	12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	68		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	88000	B	58	23	mg/Kg	10	☼	6010B	Total/NA
Manganese	330		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.1		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	510		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Sodium	1000		58	7.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.29	0.084	mg/Kg	1	☼	6010B	Total/NA
Zinc	51		1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.27	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.50		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.97		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.13	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.91		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.016	J	0.017	0.0090	mg/Kg	1	☼	7471B	Total/NA
pH	8.51		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-18-B03 (0-1)

Lab Sample ID: 500-107641-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0057	J	0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B03 (0-1) (Continued)

Lab Sample ID: 500-107641-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.042		0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0072	J	0.036	0.0061	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.084		0.036	0.0068	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.11		0.036	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.040		0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.054		0.036	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.093		0.036	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.030	J	0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.046		0.036	0.0071	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.022	J	0.036	0.0095	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.022	J	0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.3		0.55	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	47		0.55	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.33		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	6.9		2.8	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.15		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	110000	B	110	35	mg/Kg	10	☼	6010B	Total/NA
Chromium	8.6	B	0.55	0.095	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.5		0.28	0.062	mg/Kg	1	☼	6010B	Total/NA
Copper	12		0.55	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	8500	B	11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	42		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	51000	B	5.5	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	320		0.55	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	10		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	640		28	4.5	mg/Kg	1	☼	6010B	Total/NA
Sodium	1300		55	7.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	13		0.28	0.080	mg/Kg	1	☼	6010B	Total/NA
Zinc	54		1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.46	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.61		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.36		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.14	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.76		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.019		0.018	0.0096	mg/Kg	1	☼	7471B	Total/NA
pH	8.44		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-18-B05 (0-1)

Lab Sample ID: 500-107641-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.064		0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.014	J	0.035	0.0059	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.15		0.035	0.0065	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.23		0.035	0.0070	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.071		0.035	0.0047	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.092		0.035	0.0096	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.17		0.035	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.070		0.035	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.096		0.035	0.0068	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.053		0.035	0.0091	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B05 (0-1) (Continued)

Lab Sample ID: 500-107641-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibenz(a,h)anthracene	0.011	J	0.035	0.0068	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.054		0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.6		0.52	0.24	mg/Kg	1	☼	6010B	Total/NA
Barium	23		0.52	0.095	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.23		0.21	0.045	mg/Kg	1	☼	6010B	Total/NA
Boron	7.9		2.6	0.36	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.099	J	0.10	0.030	mg/Kg	1	☼	6010B	Total/NA
Calcium	160000	B	100	34	mg/Kg	10	☼	6010B	Total/NA
Chromium	7.7	B	0.52	0.090	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.3		0.26	0.059	mg/Kg	1	☼	6010B	Total/NA
Copper	12		0.52	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	7300	B	10	4.0	mg/Kg	1	☼	6010B	Total/NA
Lead	33		0.26	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	95000	B	52	21	mg/Kg	10	☼	6010B	Total/NA
Manganese	250		0.52	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	8.3		0.52	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	490		26	4.3	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.29	J	0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Sodium	1200		52	6.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	9.9		0.26	0.076	mg/Kg	1	☼	6010B	Total/NA
Zinc	41		1.0	0.33	mg/Kg	1	☼	6010B	Total/NA
Barium	0.33	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.59		0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.010	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.3		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.27	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.28		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.36		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-18-B07 (0-1)

Lab Sample ID: 500-107641-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.038		0.036	0.0050	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0071	J	0.036	0.0060	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.073		0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.11		0.036	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.036		0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.046		0.036	0.0098	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.082		0.036	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.028	J	0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.044		0.036	0.0070	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.022	J	0.036	0.0093	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.023	J	0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.9		0.53	0.24	mg/Kg	1	☼	6010B	Total/NA
Barium	28		0.53	0.096	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.20	J	0.21	0.046	mg/Kg	1	☼	6010B	Total/NA
Boron	7.0		2.6	0.37	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.090	J	0.11	0.030	mg/Kg	1	☼	6010B	Total/NA
Calcium	160000	B	110	34	mg/Kg	10	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B07 (0-1) (Continued)

Lab Sample ID: 500-107641-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	7.1	B	0.53	0.091	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.8		0.26	0.059	mg/Kg	1	☼	6010B	Total/NA
Copper	14		0.53	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	7500	B	11	4.1	mg/Kg	1	☼	6010B	Total/NA
Lead	45		0.26	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	93000	B	53	21	mg/Kg	10	☼	6010B	Total/NA
Manganese	260		0.53	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	8.5		0.53	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	490		26	4.3	mg/Kg	1	☼	6010B	Total/NA
Sodium	1300		53	6.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	10		0.26	0.077	mg/Kg	1	☼	6010B	Total/NA
Zinc	36		1.1	0.33	mg/Kg	1	☼	6010B	Total/NA
Barium	0.43	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.54		0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.1		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.016	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.63	B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.082		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.47		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-18-B09 (0-1)

Lab Sample ID: 500-107641-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.067		0.037	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.014	J	0.037	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.16		0.037	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.24		0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.076		0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.097		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.15		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.059		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.087		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.046		0.037	0.0098	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.0096	J	0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.043		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.6		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	36		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.42		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	4.7		2.9	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16		0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	96000	B	120	37	mg/Kg	10	☼	6010B	Total/NA
Chromium	10	B	0.58	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.4		0.29	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	13		0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	10000	B	12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	63		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	40000	B	5.8	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	380		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B09 (0-1) (Continued)

Lab Sample ID: 500-107641-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	650		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Sodium	1400		58	7.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	67		1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.26	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.50		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.90		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.24	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.014	J	0.017	0.0091	mg/Kg	1	☼	7471B	Total/NA
pH	8.55		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 3011-18-B10 (0-1)

Lab Sample ID: 500-107641-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.016	J	0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.028	J	0.036	0.0068	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.047		0.036	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.016	J	0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.021	J	0.036	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.037		0.036	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.016	J	0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.020	J	0.036	0.0071	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.3		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	35		0.54	0.098	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.37		0.22	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	5.7		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.094	J	0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	98000	B	110	35	mg/Kg	10	☼	6010B	Total/NA
Chromium	9.6	B	0.54	0.093	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.8		0.27	0.061	mg/Kg	1	☼	6010B	Total/NA
Copper	13		0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	11000	B	11	4.1	mg/Kg	1	☼	6010B	Total/NA
Lead	29		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	39000	B	5.4	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	340		0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	15		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	860		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Sodium	1100		54	7.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.27	0.079	mg/Kg	1	☼	6010B	Total/NA
Zinc	56		1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.41	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.57		0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.017	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	5.7		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.016	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.37	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.4		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.019		0.017	0.0090	mg/Kg	1	☼	7471B	Total/NA
pH	8.68		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B11 (0-1)

Lab Sample ID: 500-107641-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.016	J	0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.030	J	0.036	0.0068	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.046		0.036	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.016	J	0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.021	J	0.036	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.040		0.036	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.018	J	0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.021	J	0.036	0.0071	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.018	J	0.036	0.0095	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.018	J	0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.8		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	46		0.54	0.099	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.35		0.22	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	5.0		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14		0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	90000	B	110	35	mg/Kg	10	☼	6010B	Total/NA
Chromium	9.7	B	0.54	0.093	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.2		0.27	0.061	mg/Kg	1	☼	6010B	Total/NA
Copper	11		0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	9500	B	11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	33		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	37000	B	5.4	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	350		0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	12		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	690		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Sodium	1300		54	7.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.27	0.079	mg/Kg	1	☼	6010B	Total/NA
Zinc	48		1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.42	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.22	J	0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.018	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	4.2		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.21	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.92		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.020		0.017	0.0090	mg/Kg	1	☼	7471B	Total/NA
pH	8.70		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107641-5	3011-18-B08 (0-1)	Solid	02/16/16 11:30	02/17/16 07:45
500-107641-6	3011-18-B06 (0-1)	Solid	02/16/16 11:35	02/17/16 07:45
500-107641-7	3011-18-B04 (0-1)	Solid	02/16/16 11:40	02/17/16 07:45
500-107641-8	3011-18-B02 (0-1)	Solid	02/16/16 11:45	02/17/16 07:45
500-107641-9	3011-18-B01 (0-1)	Solid	02/16/16 12:50	02/17/16 07:45
500-107641-10	3011-18-B01 (0-1)D	Solid	02/16/16 12:50	02/17/16 07:45
500-107641-11	3011-18-B03 (0-1)	Solid	02/16/16 13:05	02/17/16 07:45
500-107641-12	3011-18-B05 (0-1)	Solid	02/16/16 13:10	02/17/16 07:45
500-107641-13	3011-18-B07 (0-1)	Solid	02/16/16 13:25	02/17/16 07:45
500-107641-14	3011-18-B09 (0-1)	Solid	02/16/16 13:30	02/17/16 07:45
500-107641-15	3011-18-B10 (0-1)	Solid	02/16/16 13:40	02/17/16 07:45
500-107641-16	3011-18-B11 (0-1)	Solid	02/16/16 13:50	02/17/16 07:45

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B08 (0-1)

Lab Sample ID: 500-107641-5

Date Collected: 02/16/16 11:30

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 84.0

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	☼	02/17/16 08:40	02/22/16 17:18	1
Benzene	<0.0055		0.0055	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Bromodichloromethane	<0.0055		0.0055	0.00093	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Bromoform	<0.0055		0.0055	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Bromomethane	<0.0055	*	0.0055	0.0020	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
2-Butanone (MEK)	<0.0055		0.0055	0.0020	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Carbon disulfide	<0.0055		0.0055	0.0020	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Carbon tetrachloride	<0.0055		0.0055	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Chlorobenzene	<0.0055		0.0055	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Chloroethane	<0.0055		0.0055	0.0023	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Chloroform	<0.0055		0.0055	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Chloromethane	<0.0055		0.0055	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
cis-1,2-Dichloroethene	<0.0055		0.0055	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
cis-1,3-Dichloropropene	<0.0055		0.0055	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Dibromochloromethane	<0.0055		0.0055	0.00063	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
1,1-Dichloroethane	<0.0055		0.0055	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
1,2-Dichloroethane	<0.0055		0.0055	0.00081	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
1,1-Dichloroethene	<0.0055		0.0055	0.0020	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
1,2-Dichloropropane	<0.0055		0.0055	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
1,3-Dichloropropane, Total	<0.0055		0.0055	0.0016	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Ethylbenzene	<0.0055		0.0055	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
2-Hexanone	<0.0055		0.0055	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Methylene Chloride	<0.0055		0.0055	0.0042	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
4-Methyl-2-pentanone (MIBK)	<0.0055		0.0055	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Methyl tert-butyl ether	<0.0055		0.0055	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Styrene	<0.0055		0.0055	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
1,1,2,2-Tetrachloroethane	<0.0055		0.0055	0.00087	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Tetrachloroethene	<0.0055		0.0055	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Toluene	<0.0055		0.0055	0.0019	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
trans-1,2-Dichloroethene	<0.0055		0.0055	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
trans-1,3-Dichloropropene	<0.0055		0.0055	0.0016	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
1,1,1-Trichloroethane	<0.0055		0.0055	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
1,1,2-Trichloroethane	<0.0055		0.0055	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Trichloroethene	<0.0055		0.0055	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Vinyl acetate	<0.0055		0.0055	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Vinyl chloride	<0.0055		0.0055	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1
Xylenes, Total	<0.011		0.011	0.0020	mg/Kg	☼	02/17/16 08:40	02/22/16 17:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 122	02/17/16 08:40	02/22/16 17:18	1
Dibromofluoromethane	105		75 - 120	02/17/16 08:40	02/22/16 17:18	1
1,2-Dichloroethane-d4 (Surr)	114		70 - 134	02/17/16 08:40	02/22/16 17:18	1
Toluene-d8 (Surr)	110		75 - 122	02/17/16 08:40	02/22/16 17:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.087	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B08 (0-1)

Lab Sample ID: 500-107641-5

Date Collected: 02/16/16 11:30

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 84.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Hexachlorobenzene	<0.079		0.079	0.0090	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Phenanthrene	0.088		0.039	0.0054	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Anthracene	0.017 J		0.039	0.0065	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Fluoranthene	0.21		0.039	0.0072	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Pyrene	0.18		0.039	0.0077	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Benzo[a]anthracene	0.083		0.039	0.0052	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B08 (0-1)

Lab Sample ID: 500-107641-5

Date Collected: 02/16/16 11:30

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 84.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.11		0.039	0.011	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Benzo[b]fluoranthene	0.20		0.039	0.0084	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Benzo[k]fluoranthene	0.059		0.039	0.011	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Benzo[a]pyrene	0.097		0.039	0.0075	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Indeno[1,2,3-cd]pyrene	0.054		0.039	0.010	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Dibenz(a,h)anthracene	0.0082	J	0.039	0.0075	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
Benzo[g,h,i]perylene	0.047		0.039	0.013	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	02/22/16 06:59	02/29/16 22:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	75		25 - 110	02/22/16 06:59	02/29/16 22:53	1
Phenol-d5	75		31 - 110	02/22/16 06:59	02/29/16 22:53	1
Nitrobenzene-d5	61		25 - 115	02/22/16 06:59	02/29/16 22:53	1
2-Fluorobiphenyl	69		25 - 119	02/22/16 06:59	02/29/16 22:53	1
2,4,6-Tribromophenol	54		35 - 137	02/22/16 06:59	02/29/16 22:53	1
Terphenyl-d14	84		36 - 134	02/22/16 06:59	02/29/16 22:53	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.53	J	1.2	0.24	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1
Arsenic	3.1		0.59	0.27	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1
Barium	23		0.59	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1
Beryllium	0.18	J	0.23	0.051	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1
Boron	8.5		2.9	0.41	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1
Cadmium	0.11	J	0.12	0.034	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1
Calcium	180000	B	120	38	mg/Kg	☼	02/23/16 16:44	02/26/16 05:20	10
Chromium	180	B	0.59	0.10	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1
Cobalt	5.2		0.29	0.066	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1
Copper	15		0.59	0.13	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1
Iron	8500	B	12	4.5	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1
Lead	130		0.29	0.15	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1
Magnesium	110000	B	59	24	mg/Kg	☼	02/23/16 16:44	02/26/16 05:20	10
Manganese	350		0.59	0.12	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1
Nickel	110		0.59	0.16	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1
Potassium	560		29	4.8	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1
Selenium	<0.59		0.59	0.29	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1
Silver	<0.29		0.29	0.069	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1
Sodium	750		59	7.7	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1
Vanadium	10		0.29	0.086	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1
Zinc	48		1.2	0.37	mg/Kg	☼	02/23/16 16:44	02/26/16 03:10	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.31	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 20:41	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 20:41	1
Boron	0.57		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 20:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B08 (0-1)

Lab Sample ID: 500-107641-5

Date Collected: 02/16/16 11:30

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 84.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/21/16 16:00	02/23/16 20:41	1
Chromium	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 20:41	1
Cobalt	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 20:41	1
Iron	<0.40		0.40	0.20	mg/L		02/21/16 16:00	02/23/16 20:41	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/21/16 16:00	02/23/16 20:41	1
Manganese	0.53		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 20:41	1
Nickel	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 20:41	1
Selenium	<0.050		0.050	0.020	mg/L		02/21/16 16:00	02/23/16 20:41	1
Silver	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 20:41	1
Zinc	0.84	B	0.50	0.020	mg/L		02/21/16 16:00	02/23/16 20:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.43		0.025	0.010	mg/L		02/23/16 09:20	02/25/16 03:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/21/16 16:00	02/22/16 19:29	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		02/21/16 16:00	02/22/16 19:29	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/16 15:15	02/23/16 11:03	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.019		0.019	0.010	mg/Kg	☼	02/23/16 15:15	02/24/16 12:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.61		0.200	0.200	SU			02/19/16 17:24	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B06 (0-1)

Lab Sample ID: 500-107641-6

Date Collected: 02/16/16 11:35

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 81.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.023		0.023	0.0044	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Benzene	<0.0056		0.0056	0.0013	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Bromodichloromethane	<0.0056		0.0056	0.00095	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Bromoform	<0.0056		0.0056	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Bromomethane	<0.0056		0.0056	0.0021	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
2-Butanone (MEK)	<0.0056		0.0056	0.0020	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Carbon disulfide	<0.0056		0.0056	0.0021	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Carbon tetrachloride	<0.0056		0.0056	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Chlorobenzene	<0.0056		0.0056	0.0013	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Chloroethane	<0.0056		0.0056	0.0024	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Chloroform	<0.0056		0.0056	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Chloromethane	<0.0056		0.0056	0.0014	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
cis-1,2-Dichloroethene	<0.0056		0.0056	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
cis-1,3-Dichloropropene	<0.0056		0.0056	0.0013	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Dibromochloromethane	<0.0056		0.0056	0.00065	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
1,1-Dichloroethane	<0.0056		0.0056	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
1,2-Dichloroethane	<0.0056		0.0056	0.00084	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
1,1-Dichloroethene	<0.0056		0.0056	0.0021	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
1,2-Dichloropropane	<0.0056		0.0056	0.0015	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
1,3-Dichloropropane, Total	<0.0056		0.0056	0.0016	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Ethylbenzene	<0.0056		0.0056	0.0014	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
2-Hexanone	<0.0056		0.0056	0.0017	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Methylene Chloride	<0.0056		0.0056	0.0043	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
4-Methyl-2-pentanone (MIBK)	<0.0056		0.0056	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Methyl tert-butyl ether	<0.0056		0.0056	0.0013	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Styrene	<0.0056		0.0056	0.0013	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
1,1,2,2-Tetrachloroethane	<0.0056		0.0056	0.00090	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Tetrachloroethene	<0.0056		0.0056	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Toluene	<0.0056		0.0056	0.0020	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
trans-1,2-Dichloroethene	<0.0056		0.0056	0.0014	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
trans-1,3-Dichloropropene	<0.0056		0.0056	0.0016	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
1,1,1-Trichloroethane	<0.0056		0.0056	0.0013	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
1,1,2-Trichloroethane	<0.0056		0.0056	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Trichloroethene	<0.0056		0.0056	0.0015	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Vinyl acetate	<0.0056		0.0056	0.0015	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Vinyl chloride	<0.0056		0.0056	0.0013	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1
Xylenes, Total	<0.011		0.011	0.0021	mg/Kg	☼	02/17/16 08:40	02/23/16 10:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 122	02/17/16 08:40	02/23/16 10:06	1
Dibromofluoromethane	104		75 - 120	02/17/16 08:40	02/23/16 10:06	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 134	02/17/16 08:40	02/23/16 10:06	1
Toluene-d8 (Surr)	109		75 - 122	02/17/16 08:40	02/23/16 10:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.086	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B06 (0-1)

Lab Sample ID: 500-107641-6

Date Collected: 02/16/16 11:35

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 81.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
2-Methylphenol	<0.20		0.20	0.062	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
2-Chlorophenol	<0.20		0.20	0.066	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
2,4-Dichlorophenol	<0.39		0.39	0.092	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
2-Methylnaphthalene	<0.039		0.039	0.0071	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
2,6-Dinitrotoluene	<0.20		0.20	0.076	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Acenaphthylene	0.0086	J	0.039	0.0051	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Dibenzofuran	<0.20		0.20	0.045	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Fluorene	0.0055	J	0.039	0.0055	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.045	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Phenanthrene	0.093		0.039	0.0054	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Anthracene	0.018	J	0.039	0.0065	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Fluoranthene	0.20		0.039	0.0072	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Pyrene	0.21		0.039	0.0077	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Benzo[a]anthracene	0.083		0.039	0.0052	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B06 (0-1)

Lab Sample ID: 500-107641-6

Date Collected: 02/16/16 11:35

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 81.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.11		0.039	0.011	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.054	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Di-n-octyl phthalate	<0.20		0.20	0.063	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Benzo[b]fluoranthene	0.20		0.039	0.0084	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Benzo[k]fluoranthene	0.070		0.039	0.011	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Benzo[a]pyrene	0.11		0.039	0.0075	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Indeno[1,2,3-cd]pyrene	0.046		0.039	0.010	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Dibenz(a,h)anthracene	0.0094	J	0.039	0.0075	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
Benzo[g,h,i]perylene	0.052		0.039	0.013	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	02/22/16 06:59	02/29/16 23:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	75		25 - 110	02/22/16 06:59	02/29/16 23:22	1
Phenol-d5	75		31 - 110	02/22/16 06:59	02/29/16 23:22	1
Nitrobenzene-d5	61		25 - 115	02/22/16 06:59	02/29/16 23:22	1
2-Fluorobiphenyl	70		25 - 119	02/22/16 06:59	02/29/16 23:22	1
2,4,6-Tribromophenol	75		35 - 137	02/22/16 06:59	02/29/16 23:22	1
Terphenyl-d14	104		36 - 134	02/22/16 06:59	02/29/16 23:22	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	☼	02/23/16 16:44	02/26/16 03:15	1
Arsenic	4.5		0.57	0.26	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1
Barium	41		0.57	0.10	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1
Beryllium	0.41		0.23	0.049	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1
Boron	7.0		2.9	0.40	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1
Cadmium	0.17		0.11	0.033	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1
Calcium	84000	B	110	37	mg/Kg	☼	02/23/16 16:44	02/26/16 05:24	10
Chromium	11	B	0.57	0.098	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1
Cobalt	6.0		0.29	0.064	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1
Copper	17		0.57	0.12	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1
Iron	10000	B	11	4.4	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1
Lead	75		0.29	0.14	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1
Magnesium	42000	B	5.7	2.3	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1
Manganese	360		0.57	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1
Nickel	13		0.57	0.15	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1
Potassium	740		29	4.7	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1
Selenium	0.33	J	0.57	0.28	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1
Silver	<0.29		0.29	0.067	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1
Sodium	1100		57	7.5	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1
Vanadium	16		0.29	0.083	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1
Zinc	74		1.1	0.36	mg/Kg	☼	02/23/16 16:44	02/26/16 03:15	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.34	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 20:48	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 20:48	1
Boron	0.49	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 20:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B06 (0-1)

Lab Sample ID: 500-107641-6

Date Collected: 02/16/16 11:35

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 81.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/21/16 16:00	02/23/16 20:48	1
Chromium	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 20:48	1
Cobalt	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 20:48	1
Iron	<0.40		0.40	0.20	mg/L		02/21/16 16:00	02/23/16 20:48	1
Lead	0.0084		0.0075	0.0075	mg/L		02/21/16 16:00	02/23/16 20:48	1
Manganese	0.62		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 20:48	1
Nickel	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 20:48	1
Selenium	<0.050		0.050	0.020	mg/L		02/21/16 16:00	02/23/16 20:48	1
Silver	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 20:48	1
Zinc	0.35	J B	0.50	0.020	mg/L		02/21/16 16:00	02/23/16 20:48	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.12		0.0075	0.0075	mg/L		02/23/16 09:20	02/25/16 03:30	1
Manganese	0.39		0.025	0.010	mg/L		02/23/16 09:20	02/25/16 03:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/21/16 16:00	02/22/16 19:33	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		02/21/16 16:00	02/22/16 19:33	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/16 15:15	02/23/16 11:05	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020		0.020	0.011	mg/Kg	☼	02/23/16 15:15	02/24/16 12:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.86		0.200	0.200	SU			02/19/16 17:33	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B04 (0-1)

Lab Sample ID: 500-107641-7

Date Collected: 02/16/16 11:40

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 87.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0035	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Benzene	<0.0045		0.0045	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Bromodichloromethane	<0.0045		0.0045	0.00076	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Bromoform	<0.0045		0.0045	0.00092	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Bromomethane	<0.0045	*	0.0045	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Carbon disulfide	<0.0045		0.0045	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Carbon tetrachloride	<0.0045		0.0045	0.00097	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Chloroethane	<0.0045		0.0045	0.0019	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Chloroform	<0.0045		0.0045	0.00088	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00092	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Dibromochloromethane	<0.0045		0.0045	0.00052	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
1,1-Dichloroethane	<0.0045		0.0045	0.00093	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
1,2-Dichloroethane	<0.0045		0.0045	0.00067	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
1,1-Dichloroethene	<0.0045		0.0045	0.0016	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Methylene Chloride	<0.0045		0.0045	0.0034	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00093	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Styrene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
1,1,2,2-Tetrachloroethane	<0.0045		0.0045	0.00072	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Tetrachloroethene	<0.0045		0.0045	0.00094	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00088	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Vinyl acetate	<0.0045		0.0045	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1
Xylenes, Total	<0.0091		0.0091	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 18:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 122	02/17/16 08:40	02/22/16 18:08	1
Dibromofluoromethane	106		75 - 120	02/17/16 08:40	02/22/16 18:08	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 134	02/17/16 08:40	02/22/16 18:08	1
Toluene-d8 (Surr)	111		75 - 122	02/17/16 08:40	02/22/16 18:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.081	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B04 (0-1)

Lab Sample ID: 500-107641-7

Date Collected: 02/16/16 11:40

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 87.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Hexachloroethane	<0.18		0.18	0.056	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
2-Chlorophenol	<0.18		0.18	0.063	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Nitrobenzene	<0.036		0.036	0.0092	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Hexachlorobutadiene	<0.18		0.18	0.058	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
2,4,6-Trichlorophenol	<0.36		0.36	0.13	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
2,4,5-Trichlorophenol	<0.36		0.36	0.084	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
2-Methylnaphthalene	<0.036		0.036	0.0067	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
2-Chloronaphthalene	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
2-Nitrophenol	<0.36		0.36	0.087	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Acenaphthene	<0.036		0.036	0.0066	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Fluorene	<0.036		0.036	0.0052	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.29	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Phenanthrene	0.061		0.036	0.0051	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Anthracene	0.010 J		0.036	0.0061	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Carbazole	<0.18		0.18	0.092	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Fluoranthene	0.11		0.036	0.0068	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Pyrene	0.12		0.036	0.0073	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Butyl benzyl phthalate	<0.18		0.18	0.070	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Benzo[a]anthracene	0.043		0.036	0.0049	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B04 (0-1)

Lab Sample ID: 500-107641-7

Date Collected: 02/16/16 11:40

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 87.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.056		0.036	0.010	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Di-n-octyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Benzo[b]fluoranthene	0.10		0.036	0.0079	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Benzo[k]fluoranthene	0.031	J	0.036	0.011	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Benzo[a]pyrene	0.051		0.036	0.0071	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Indeno[1,2,3-cd]pyrene	0.026	J	0.036	0.0095	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0071	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
Benzo[g,h,i]perylene	0.025	J	0.036	0.012	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	02/22/16 06:59	02/29/16 23:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	82		25 - 110	02/22/16 06:59	02/29/16 23:51	1
Phenol-d5	79		31 - 110	02/22/16 06:59	02/29/16 23:51	1
Nitrobenzene-d5	59		25 - 115	02/22/16 06:59	02/29/16 23:51	1
2-Fluorobiphenyl	70		25 - 119	02/22/16 06:59	02/29/16 23:51	1
2,4,6-Tribromophenol	52		35 - 137	02/22/16 06:59	02/29/16 23:51	1
Terphenyl-d14	106		36 - 134	02/22/16 06:59	02/29/16 23:51	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1
Arsenic	3.5		0.53	0.25	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1
Barium	35		0.53	0.098	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1
Beryllium	0.26		0.21	0.046	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1
Boron	6.9		2.7	0.37	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1
Cadmium	0.15		0.11	0.031	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1
Calcium	140000	B	110	34	mg/Kg	☼	02/23/16 16:44	02/26/16 05:28	10
Chromium	9.1	B	0.53	0.092	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1
Cobalt	4.4		0.27	0.060	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1
Copper	11		0.53	0.12	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1
Iron	7600	B	11	4.1	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1
Lead	73		0.27	0.13	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1
Magnesium	84000	B	53	22	mg/Kg	☼	02/23/16 16:44	02/26/16 05:28	10
Manganese	270		0.53	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1
Nickel	11		0.53	0.14	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1
Potassium	590		27	4.4	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1
Selenium	<0.53		0.53	0.26	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1
Sodium	1100		53	7.1	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1
Thallium	<0.53		0.53	0.26	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1
Vanadium	12		0.27	0.078	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1
Zinc	52		1.1	0.34	mg/Kg	☼	02/23/16 16:44	02/26/16 03:20	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.41	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 20:55	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 20:55	1
Boron	0.51		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 20:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B04 (0-1)

Lab Sample ID: 500-107641-7

Date Collected: 02/16/16 11:40

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 87.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	02/21/16 16:00	02/23/16 20:55	1
Chromium	<0.025		0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 20:55	1
Cobalt	<0.025		0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 20:55	1
Iron	<0.40		0.40	0.20	mg/L	-	02/21/16 16:00	02/23/16 20:55	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	02/21/16 16:00	02/23/16 20:55	1
Manganese	1.0		0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 20:55	1
Nickel	<0.025		0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 20:55	1
Selenium	<0.050		0.050	0.020	mg/L	-	02/21/16 16:00	02/23/16 20:55	1
Silver	<0.025		0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 20:55	1
Zinc	0.15	J B	0.50	0.020	mg/L	-	02/21/16 16:00	02/23/16 20:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.50		0.025	0.010	mg/L	-	02/23/16 09:20	02/25/16 03:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	02/21/16 16:00	02/22/16 19:37	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L	-	02/21/16 16:00	02/22/16 19:37	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	02/22/16 15:15	02/23/16 11:07	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016	J	0.018	0.0095	mg/Kg	☼	02/23/16 15:15	02/24/16 12:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.67		0.200	0.200	SU	-		02/19/16 17:43	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B02 (0-1)

Lab Sample ID: 500-107641-8

Date Collected: 02/16/16 11:45

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.038		0.016	0.0032	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Benzene	<0.0041		0.0041	0.00091	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Bromodichloromethane	<0.0041		0.0041	0.00069	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Bromoform	<0.0041		0.0041	0.00084	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
2-Butanone (MEK)	0.0084		0.0041	0.0015	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Carbon disulfide	<0.0041		0.0041	0.0015	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Carbon tetrachloride	<0.0041		0.0041	0.00088	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Chlorobenzene	<0.0041		0.0041	0.00097	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Chloroethane	<0.0041		0.0041	0.0017	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Chloroform	<0.0041		0.0041	0.00080	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Chloromethane	<0.0041		0.0041	0.00099	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
cis-1,2-Dichloroethene	<0.0041		0.0041	0.00084	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
cis-1,3-Dichloropropene	<0.0041		0.0041	0.00094	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Dibromochloromethane	<0.0041		0.0041	0.00047	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
1,1-Dichloroethane	<0.0041		0.0041	0.00085	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
1,2-Dichloroethane	<0.0041		0.0041	0.00061	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
1,1-Dichloroethene	<0.0041		0.0041	0.0015	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
1,2-Dichloropropane	<0.0041		0.0041	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
1,3-Dichloropropane, Total	<0.0041		0.0041	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Ethylbenzene	<0.0041		0.0041	0.0010	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Methylene Chloride	<0.0041		0.0041	0.0031	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.00085	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Methyl tert-butyl ether	<0.0041		0.0041	0.00097	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Styrene	<0.0041		0.0041	0.00096	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
1,1,2,2-Tetrachloroethane	<0.0041		0.0041	0.00065	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Tetrachloroethene	<0.0041		0.0041	0.00086	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Toluene	<0.0041		0.0041	0.0014	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
trans-1,2-Dichloroethene	<0.0041		0.0041	0.0010	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
trans-1,3-Dichloropropene	<0.0041		0.0041	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
1,1,1-Trichloroethane	<0.0041		0.0041	0.00095	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
1,1,2-Trichloroethane	<0.0041		0.0041	0.00080	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Trichloroethene	<0.0041		0.0041	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Vinyl acetate	<0.0041		0.0041	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Vinyl chloride	<0.0041		0.0041	0.00098	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1
Xylenes, Total	<0.0082		0.0082	0.0015	mg/Kg	☼	02/17/16 08:40	02/23/16 10:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 122	02/17/16 08:40	02/23/16 10:31	1
Dibromofluoromethane	105		75 - 120	02/17/16 08:40	02/23/16 10:31	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	02/17/16 08:40	02/23/16 10:31	1
Toluene-d8 (Surr)	110		75 - 122	02/17/16 08:40	02/23/16 10:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B02 (0-1)

Lab Sample ID: 500-107641-8

Date Collected: 02/16/16 11:45

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
2-Methylnaphthalene	<0.038		0.038	0.0070	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Phenanthrene	0.039		0.038	0.0053	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Anthracene	0.0083 J		0.038	0.0064	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Fluoranthene	0.095		0.038	0.0071	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Pyrene	0.16		0.038	0.0076	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Benzo[a]anthracene	0.047		0.038	0.0051	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B02 (0-1)

Lab Sample ID: 500-107641-8

Date Collected: 02/16/16 11:45

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.079		0.038	0.010	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Benzo[b]fluoranthene	0.16		0.038	0.0082	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Benzo[k]fluoranthene	0.058		0.038	0.011	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Benzo[a]pyrene	0.094		0.038	0.0074	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Indeno[1,2,3-cd]pyrene	0.054		0.038	0.0099	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
Benzo[g,h,i]perylene	0.085		0.038	0.012	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	02/22/16 06:59	03/01/16 00:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	81		25 - 110	02/22/16 06:59	03/01/16 00:21	1
Phenol-d5	80		31 - 110	02/22/16 06:59	03/01/16 00:21	1
Nitrobenzene-d5	67		25 - 115	02/22/16 06:59	03/01/16 00:21	1
2-Fluorobiphenyl	70		25 - 119	02/22/16 06:59	03/01/16 00:21	1
2,4,6-Tribromophenol	73		35 - 137	02/22/16 06:59	03/01/16 00:21	1
Terphenyl-d14	129		36 - 134	02/22/16 06:59	03/01/16 00:21	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	☼	02/23/16 16:44	02/26/16 03:25	1
Arsenic	3.9		0.55	0.26	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1
Barium	42		0.55	0.10	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1
Beryllium	0.39		0.22	0.048	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1
Boron	5.2		2.8	0.39	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1
Cadmium	0.19		0.11	0.032	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1
Calcium	110000	B	110	36	mg/Kg	☼	02/23/16 16:44	02/26/16 05:32	10
Chromium	11	B	0.55	0.095	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1
Cobalt	5.2		0.28	0.063	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1
Copper	13		0.55	0.12	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1
Iron	10000	B	11	4.3	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1
Lead	77		0.28	0.14	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1
Magnesium	46000	B	5.5	2.3	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1
Manganese	300		0.55	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1
Nickel	13		0.55	0.15	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1
Potassium	660		28	4.5	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1
Selenium	<0.55		0.55	0.27	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1
Silver	<0.28		0.28	0.065	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1
Sodium	1200		55	7.3	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1
Vanadium	15		0.28	0.081	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1
Zinc	68		1.1	0.35	mg/Kg	☼	02/23/16 16:44	02/26/16 03:25	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.48	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 21:01	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 21:01	1
Boron	0.47	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 21:01	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B02 (0-1)

Lab Sample ID: 500-107641-8

Date Collected: 02/16/16 11:45

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/21/16 16:00	02/23/16 21:01	1
Chromium	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:01	1
Cobalt	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:01	1
Iron	<0.40		0.40	0.20	mg/L		02/21/16 16:00	02/23/16 21:01	1
Lead	0.011		0.0075	0.0075	mg/L		02/21/16 16:00	02/23/16 21:01	1
Manganese	4.0		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:01	1
Nickel	0.012	J	0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:01	1
Selenium	<0.050		0.050	0.020	mg/L		02/21/16 16:00	02/23/16 21:01	1
Silver	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:01	1
Zinc	0.17	J B	0.50	0.020	mg/L		02/21/16 16:00	02/23/16 21:01	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.23		0.0075	0.0075	mg/L		02/23/16 09:20	02/25/16 03:44	1
Manganese	0.63		0.025	0.010	mg/L		02/23/16 09:20	02/25/16 03:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/21/16 16:00	02/22/16 19:41	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		02/21/16 16:00	02/22/16 19:41	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/16 15:15	02/23/16 11:09	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.018	0.0094	mg/Kg	☼	02/23/16 15:15	02/24/16 12:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.21		0.200	0.200	SU			02/19/16 17:53	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B01 (0-1)

Lab Sample ID: 500-107641-9

Date Collected: 02/16/16 12:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 82.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.022		0.022	0.0042	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Benzene	<0.0054		0.0054	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Bromodichloromethane	<0.0054		0.0054	0.00091	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Bromoform	<0.0054		0.0054	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Bromomethane	<0.0054 *		0.0054	0.0020	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
2-Butanone (MEK)	<0.0054		0.0054	0.0019	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Carbon disulfide	<0.0054		0.0054	0.0020	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Carbon tetrachloride	<0.0054		0.0054	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Chlorobenzene	<0.0054		0.0054	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Chloroethane	<0.0054		0.0054	0.0023	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Chloroform	<0.0054		0.0054	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Chloromethane	<0.0054		0.0054	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
cis-1,2-Dichloroethene	<0.0054		0.0054	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
cis-1,3-Dichloropropene	<0.0054		0.0054	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Dibromochloromethane	<0.0054		0.0054	0.00062	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
1,1-Dichloroethane	<0.0054		0.0054	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
1,2-Dichloroethane	<0.0054		0.0054	0.00080	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
1,1-Dichloroethene	<0.0054		0.0054	0.0020	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
1,2-Dichloropropane	<0.0054		0.0054	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
1,3-Dichloropropane, Total	<0.0054		0.0054	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Ethylbenzene	<0.0054		0.0054	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
2-Hexanone	<0.0054		0.0054	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Methylene Chloride	<0.0054		0.0054	0.0041	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
4-Methyl-2-pentanone (MIBK)	<0.0054		0.0054	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Methyl tert-butyl ether	<0.0054		0.0054	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Styrene	<0.0054		0.0054	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
1,1,2,2-Tetrachloroethane	<0.0054		0.0054	0.00086	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Tetrachloroethene	<0.0054		0.0054	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Toluene	<0.0054		0.0054	0.0019	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
trans-1,2-Dichloroethene	<0.0054		0.0054	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
trans-1,3-Dichloropropene	<0.0054		0.0054	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
1,1,1-Trichloroethane	<0.0054		0.0054	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
1,1,2-Trichloroethane	<0.0054		0.0054	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Trichloroethene	<0.0054		0.0054	0.0015	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Vinyl acetate	<0.0054		0.0054	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Vinyl chloride	<0.0054		0.0054	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1
Xylenes, Total	<0.011		0.011	0.0020	mg/Kg	☼	02/17/16 08:40	02/22/16 18:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 122	02/17/16 08:40	02/22/16 18:58	1
Dibromofluoromethane	107		75 - 120	02/17/16 08:40	02/22/16 18:58	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	02/17/16 08:40	02/22/16 18:58	1
Toluene-d8 (Surr)	112		75 - 122	02/17/16 08:40	02/22/16 18:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B01 (0-1)

Lab Sample ID: 500-107641-9

Date Collected: 02/16/16 12:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 82.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Phenanthrene	0.033	J	0.039	0.0055	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Fluoranthene	0.059		0.039	0.0073	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Pyrene	0.12		0.039	0.0078	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Benzo[a]anthracene	0.041		0.039	0.0053	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B01 (0-1)

Lab Sample ID: 500-107641-9

Date Collected: 02/16/16 12:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 82.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.053		0.039	0.011	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Benzo[b]fluoranthene	0.097		0.039	0.0085	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Benzo[k]fluoranthene	0.050		0.039	0.012	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Benzo[a]pyrene	0.069		0.039	0.0076	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
Benzo[g,h,i]perylene	0.043		0.039	0.013	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	02/22/16 06:59	02/28/16 15:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	87		25 - 110	02/22/16 06:59	02/28/16 15:49	1
Phenol-d5	82		31 - 110	02/22/16 06:59	02/28/16 15:49	1
Nitrobenzene-d5	72		25 - 115	02/22/16 06:59	02/28/16 15:49	1
2-Fluorobiphenyl	74		25 - 119	02/22/16 06:59	02/28/16 15:49	1
2,4,6-Tribromophenol	75		35 - 137	02/22/16 06:59	02/28/16 15:49	1
Terphenyl-d14	177	X	36 - 134	02/22/16 06:59	02/28/16 15:49	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	☼	02/23/16 16:44	02/26/16 03:30	1
Arsenic	4.7		0.60	0.28	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Barium	38		0.60	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Beryllium	0.35		0.24	0.052	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Boron	6.6		3.0	0.42	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Cadmium	0.18		0.12	0.035	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Calcium	110000	B	120	38	mg/Kg	☼	02/23/16 16:44	02/26/16 05:36	10
Chromium	10	B	0.60	0.10	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Cobalt	5.5		0.30	0.068	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Copper	13		0.60	0.13	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Iron	9000	B	12	4.6	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Lead	76		0.30	0.15	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Magnesium	53000	B	6.0	2.4	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Manganese	370		0.60	0.12	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Nickel	12		0.60	0.16	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Potassium	700		30	4.9	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Selenium	<0.60		0.60	0.30	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Sodium	1300		60	7.9	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Thallium	<0.60		0.60	0.29	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Vanadium	14		0.30	0.087	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1
Zinc	62		1.2	0.38	mg/Kg	☼	02/23/16 16:44	02/26/16 03:30	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.31	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 21:08	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 21:08	1
Boron	0.53		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 21:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B01 (0-1)

Lab Sample ID: 500-107641-9

Date Collected: 02/16/16 12:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 82.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/21/16 16:00	02/23/16 21:08	1
Chromium	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:08	1
Cobalt	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:08	1
Iron	<0.40		0.40	0.20	mg/L		02/21/16 16:00	02/23/16 21:08	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/21/16 16:00	02/23/16 21:08	1
Manganese	0.25		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:08	1
Nickel	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:08	1
Selenium	<0.050		0.050	0.020	mg/L		02/21/16 16:00	02/23/16 21:08	1
Silver	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:08	1
Zinc	0.093	J B	0.50	0.020	mg/L		02/21/16 16:00	02/23/16 21:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.80		0.025	0.010	mg/L		02/23/16 09:20	02/25/16 03:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/21/16 16:00	02/22/16 19:46	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		02/21/16 16:00	02/22/16 19:46	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/16 15:15	02/23/16 11:11	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	J	0.019	0.010	mg/Kg	☼	02/23/16 15:15	02/24/16 12:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.42		0.200	0.200	SU			02/19/16 18:13	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B01 (0-1)D

Lab Sample ID: 500-107641-10

Date Collected: 02/16/16 12:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0035	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Benzene	<0.0045		0.0045	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Bromodichloromethane	<0.0045		0.0045	0.00076	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Bromoform	<0.0045		0.0045	0.00092	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Bromomethane	<0.0045	*	0.0045	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Carbon disulfide	<0.0045		0.0045	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Carbon tetrachloride	<0.0045		0.0045	0.00097	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Chloroethane	<0.0045		0.0045	0.0019	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Chloroform	<0.0045		0.0045	0.00088	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00092	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Dibromochloromethane	<0.0045		0.0045	0.00052	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
1,1-Dichloroethane	<0.0045		0.0045	0.00093	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
1,2-Dichloroethane	<0.0045		0.0045	0.00067	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
1,1-Dichloroethene	<0.0045		0.0045	0.0016	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Methylene Chloride	<0.0045		0.0045	0.0034	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00093	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Styrene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
1,1,1,2-Tetrachloroethane	<0.0045		0.0045	0.00072	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Tetrachloroethene	<0.0045		0.0045	0.00094	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00088	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Vinyl acetate	<0.0045		0.0045	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1
Xylenes, Total	<0.0090		0.0090	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 19:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 122	02/17/16 08:40	02/22/16 19:23	1
Dibromofluoromethane	105		75 - 120	02/17/16 08:40	02/22/16 19:23	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 134	02/17/16 08:40	02/22/16 19:23	1
Toluene-d8 (Surr)	110		75 - 122	02/17/16 08:40	02/22/16 19:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B01 (0-1)D

Lab Sample ID: 500-107641-10

Date Collected: 02/16/16 12:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2-Methylnaphthalene	<0.038		0.038	0.0070	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Phenanthrene	0.026	J	0.038	0.0053	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Fluoranthene	0.073		0.038	0.0071	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Pyrene	0.088		0.038	0.0076	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Benzo[a]anthracene	0.032	J	0.038	0.0051	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B01 (0-1)D

Lab Sample ID: 500-107641-10

Date Collected: 02/16/16 12:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.042		0.038	0.010	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Benzo[b]fluoranthene	0.077		0.038	0.0082	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Benzo[k]fluoranthene	0.025 J		0.038	0.011	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Benzo[a]pyrene	0.039		0.038	0.0074	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Indeno[1,2,3-cd]pyrene	0.022 J		0.038	0.0099	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
Benzo[g,h,i]perylene	0.024 J		0.038	0.012	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	02/22/16 06:59	03/01/16 01:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	75		25 - 110	02/22/16 06:59	03/01/16 01:19	1
Phenol-d5	69		31 - 110	02/22/16 06:59	03/01/16 01:19	1
Nitrobenzene-d5	65		25 - 115	02/22/16 06:59	03/01/16 01:19	1
2-Fluorobiphenyl	69		25 - 119	02/22/16 06:59	03/01/16 01:19	1
2,4,6-Tribromophenol	35		35 - 137	02/22/16 06:59	03/01/16 01:19	1
Terphenyl-d14	117		36 - 134	02/22/16 06:59	03/01/16 01:19	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	☼	02/23/16 16:44	02/26/16 03:35	1
Arsenic	3.0		0.58	0.27	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Barium	25		0.58	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Beryllium	0.25		0.23	0.050	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Boron	6.3		2.9	0.40	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Cadmium	0.18		0.12	0.033	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Calcium	150000 B		120	37	mg/Kg	☼	02/23/16 16:44	02/26/16 05:40	10
Chromium	8.3 B		0.58	0.099	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Cobalt	4.1		0.29	0.065	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Copper	12		0.58	0.13	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Iron	7800 B		12	4.5	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Lead	68		0.29	0.14	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Magnesium	88000 B		58	23	mg/Kg	☼	02/23/16 16:44	02/26/16 05:40	10
Manganese	330		0.58	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Nickel	9.1		0.58	0.16	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Potassium	510		29	4.7	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Selenium	<0.58		0.58	0.29	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Sodium	1000		58	7.6	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Thallium	<0.58		0.58	0.28	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Vanadium	12		0.29	0.084	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1
Zinc	51		1.2	0.37	mg/Kg	☼	02/23/16 16:44	02/26/16 03:35	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.27 J		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 21:15	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 21:15	1
Boron	0.50		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 21:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B01 (0-1)D

Lab Sample ID: 500-107641-10

Date Collected: 02/16/16 12:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/21/16 16:00	02/23/16 21:15	1
Chromium	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:15	1
Cobalt	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:15	1
Iron	<0.40		0.40	0.20	mg/L		02/21/16 16:00	02/23/16 21:15	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/21/16 16:00	02/23/16 21:15	1
Manganese	0.97		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:15	1
Nickel	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:15	1
Selenium	<0.050		0.050	0.020	mg/L		02/21/16 16:00	02/23/16 21:15	1
Silver	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:15	1
Zinc	0.13	J B	0.50	0.020	mg/L		02/21/16 16:00	02/23/16 21:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.91		0.025	0.010	mg/L		02/23/16 09:20	02/25/16 03:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/21/16 16:00	02/22/16 19:50	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		02/21/16 16:00	02/22/16 19:50	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/16 15:15	02/23/16 11:16	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016	J	0.017	0.0090	mg/Kg	☼	02/23/16 15:15	02/24/16 12:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.51		0.200	0.200	SU			02/19/16 18:23	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B03 (0-1)

Lab Sample ID: 500-107641-11

Date Collected: 02/16/16 13:05

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 88.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0035	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Benzene	<0.0046		0.0046	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Bromodichloromethane	<0.0046		0.0046	0.00077	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Bromoform	<0.0046		0.0046	0.00094	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Bromomethane	<0.0046	*	0.0046	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
2-Butanone (MEK)	<0.0046		0.0046	0.0016	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Carbon disulfide	<0.0046		0.0046	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Carbon tetrachloride	<0.0046		0.0046	0.00098	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Chlorobenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Chloroethane	<0.0046		0.0046	0.0019	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Chloroform	<0.0046		0.0046	0.00089	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Chloromethane	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
cis-1,2-Dichloroethene	<0.0046		0.0046	0.00094	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
cis-1,3-Dichloropropene	<0.0046		0.0046	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Dibromochloromethane	<0.0046		0.0046	0.00053	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
1,1-Dichloroethane	<0.0046		0.0046	0.00094	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
1,2-Dichloroethane	<0.0046		0.0046	0.00068	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
1,1-Dichloroethene	<0.0046		0.0046	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
1,2-Dichloropropane	<0.0046		0.0046	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
1,3-Dichloropropane, Total	<0.0046		0.0046	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Ethylbenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Methylene Chloride	<0.0046		0.0046	0.0035	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.00094	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Methyl tert-butyl ether	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Styrene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
1,1,2,2-Tetrachloroethane	<0.0046		0.0046	0.00073	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Tetrachloroethene	<0.0046		0.0046	0.00095	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Toluene	<0.0046		0.0046	0.0016	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
trans-1,2-Dichloroethene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
trans-1,3-Dichloropropene	<0.0046		0.0046	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
1,1,1-Trichloroethane	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
1,1,2-Trichloroethane	<0.0046		0.0046	0.00089	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Trichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Vinyl acetate	<0.0046		0.0046	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Vinyl chloride	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1
Xylenes, Total	<0.0092		0.0092	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 19:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 122	02/17/16 08:40	02/22/16 19:48	1
Dibromofluoromethane	107		75 - 120	02/17/16 08:40	02/22/16 19:48	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 134	02/17/16 08:40	02/22/16 19:48	1
Toluene-d8 (Surr)	108		75 - 122	02/17/16 08:40	02/22/16 19:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.081	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B03 (0-1)

Lab Sample ID: 500-107641-11

Date Collected: 02/16/16 13:05

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 88.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Hexachloroethane	<0.18		0.18	0.056	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
2,4,6-Trichlorophenol	<0.36		0.36	0.13	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
2,4,5-Trichlorophenol	<0.36		0.36	0.083	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
2-Methylnaphthalene	<0.036		0.036	0.0067	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
2-Nitrophenol	<0.36		0.36	0.086	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
2,4-Dinitrophenol	<0.74		0.74	0.64	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Acenaphthylene	0.0057	J	0.036	0.0048	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Acenaphthene	<0.036		0.036	0.0066	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.29	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Phenanthrene	0.042		0.036	0.0051	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Anthracene	0.0072	J	0.036	0.0061	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Carbazole	<0.18		0.18	0.091	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Fluoranthene	0.084		0.036	0.0068	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Pyrene	0.11		0.036	0.0073	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Butyl benzyl phthalate	<0.18		0.18	0.070	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Benzo[a]anthracene	0.040		0.036	0.0049	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B03 (0-1)

Lab Sample ID: 500-107641-11

Date Collected: 02/16/16 13:05

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 88.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.054		0.036	0.010	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Di-n-octyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Benzo[b]fluoranthene	0.093		0.036	0.0079	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Benzo[k]fluoranthene	0.030	J	0.036	0.011	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Benzo[a]pyrene	0.046		0.036	0.0071	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Indeno[1,2,3-cd]pyrene	0.022	J	0.036	0.0095	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0071	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
Benzo[g,h,i]perylene	0.022	J	0.036	0.012	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	02/22/16 06:59	03/01/16 01:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	80		25 - 110	02/22/16 06:59	03/01/16 01:48	1
Phenol-d5	78		31 - 110	02/22/16 06:59	03/01/16 01:48	1
Nitrobenzene-d5	69		25 - 115	02/22/16 06:59	03/01/16 01:48	1
2-Fluorobiphenyl	77		25 - 119	02/22/16 06:59	03/01/16 01:48	1
2,4,6-Tribromophenol	55		35 - 137	02/22/16 06:59	03/01/16 01:48	1
Terphenyl-d14	132		36 - 134	02/22/16 06:59	03/01/16 01:48	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	☼	02/23/16 16:44	02/26/16 03:40	1
Arsenic	3.3		0.55	0.25	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1
Barium	47		0.55	0.10	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1
Beryllium	0.33		0.22	0.048	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1
Boron	6.9		2.8	0.38	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1
Cadmium	0.15		0.11	0.032	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1
Calcium	110000	B	110	35	mg/Kg	☼	02/23/16 16:44	02/26/16 05:52	10
Chromium	8.6	B	0.55	0.095	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1
Cobalt	4.5		0.28	0.062	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1
Copper	12		0.55	0.12	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1
Iron	8500	B	11	4.2	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1
Lead	42		0.28	0.14	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1
Magnesium	51000	B	5.5	2.2	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1
Manganese	320		0.55	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1
Nickel	10		0.55	0.15	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1
Potassium	640		28	4.5	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1
Selenium	<0.55		0.55	0.27	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1
Silver	<0.28		0.28	0.064	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1
Sodium	1300		55	7.3	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1
Vanadium	13		0.28	0.080	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1
Zinc	54		1.1	0.35	mg/Kg	☼	02/23/16 16:44	02/26/16 03:40	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.46	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 21:58	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 21:58	1
Boron	0.61		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 21:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B03 (0-1)

Lab Sample ID: 500-107641-11

Date Collected: 02/16/16 13:05

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 88.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/21/16 16:00	02/23/16 21:58	1
Chromium	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:58	1
Cobalt	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:58	1
Iron	<0.40		0.40	0.20	mg/L		02/21/16 16:00	02/23/16 21:58	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/21/16 16:00	02/23/16 21:58	1
Manganese	0.36		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:58	1
Nickel	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:58	1
Selenium	<0.050		0.050	0.020	mg/L		02/21/16 16:00	02/23/16 21:58	1
Silver	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 21:58	1
Zinc	0.14	J B	0.50	0.020	mg/L		02/21/16 16:00	02/23/16 21:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.76		0.025	0.010	mg/L		02/23/16 09:20	02/25/16 04:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/21/16 16:00	02/22/16 20:14	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		02/21/16 16:00	02/22/16 20:14	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/16 15:15	02/23/16 11:18	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019		0.018	0.0096	mg/Kg	☼	02/23/16 15:15	02/24/16 12:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.44		0.200	0.200	SU			02/19/16 18:33	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B05 (0-1)

Lab Sample ID: 500-107641-12

Date Collected: 02/16/16 13:10

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 89.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0036	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Benzene	<0.0046		0.0046	0.0010	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Bromodichloromethane	<0.0046		0.0046	0.00078	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Bromoform	<0.0046		0.0046	0.00094	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Bromomethane	<0.0046	*	0.0046	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
2-Butanone (MEK)	<0.0046		0.0046	0.0016	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Carbon disulfide	<0.0046		0.0046	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Carbon tetrachloride	<0.0046		0.0046	0.00099	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Chlorobenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Chloroethane	<0.0046		0.0046	0.0019	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Chloroform	<0.0046		0.0046	0.00090	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Chloromethane	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
cis-1,2-Dichloroethene	<0.0046		0.0046	0.00094	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
cis-1,3-Dichloropropene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Dibromochloromethane	<0.0046		0.0046	0.00053	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
1,1-Dichloroethane	<0.0046		0.0046	0.00095	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
1,2-Dichloroethane	<0.0046		0.0046	0.00068	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
1,1-Dichloroethene	<0.0046		0.0046	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
1,2-Dichloropropane	<0.0046		0.0046	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
1,3-Dichloropropane, Total	<0.0046		0.0046	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Ethylbenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Methylene Chloride	<0.0046		0.0046	0.0035	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.00095	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Methyl tert-butyl ether	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Styrene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
1,1,2,2-Tetrachloroethane	<0.0046		0.0046	0.00073	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Tetrachloroethene	<0.0046		0.0046	0.00096	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Toluene	<0.0046		0.0046	0.0016	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
trans-1,2-Dichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
trans-1,3-Dichloropropene	<0.0046		0.0046	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
1,1,1-Trichloroethane	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
1,1,2-Trichloroethane	<0.0046		0.0046	0.00089	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Trichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Vinyl acetate	<0.0046		0.0046	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Vinyl chloride	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1
Xylenes, Total	<0.0092		0.0092	0.0017	mg/Kg	☼	02/17/16 08:40	02/22/16 20:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 122	02/17/16 08:40	02/22/16 20:13	1
Dibromofluoromethane	105		75 - 120	02/17/16 08:40	02/22/16 20:13	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 134	02/17/16 08:40	02/22/16 20:13	1
Toluene-d8 (Surr)	110		75 - 122	02/17/16 08:40	02/22/16 20:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.078	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
1,3-Dichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B05 (0-1)

Lab Sample ID: 500-107641-12

Date Collected: 02/16/16 13:10

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 89.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
2-Methylphenol	<0.18		0.18	0.056	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
N-Nitrosodi-n-propylamine	<0.071		0.071	0.043	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Hexachloroethane	<0.18		0.18	0.053	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Nitrobenzene	<0.035		0.035	0.0087	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Isophorone	<0.18		0.18	0.039	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
2,4-Dichlorophenol	<0.35		0.35	0.083	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
4-Chloroaniline	<0.71		0.71	0.16	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
2,4,5-Trichlorophenol	<0.35		0.35	0.080	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
2-Methylnaphthalene	<0.035		0.035	0.0064	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Acenaphthylene	<0.035		0.035	0.0046	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Acenaphthene	<0.035		0.035	0.0063	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
4-Nitrophenol	<0.71		0.71	0.33	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Fluorene	<0.035		0.035	0.0049	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Hexachlorobenzene	<0.071		0.071	0.0081	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Diethyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Pentachlorophenol	<0.71		0.71	0.56	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
N-Nitrosodiphenylamine	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Phenanthrene	0.064		0.035	0.0049	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Anthracene	0.014 J		0.035	0.0059	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Carbazole	<0.18		0.18	0.088	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Di-n-butyl phthalate	<0.18		0.18	0.053	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Fluoranthene	0.15		0.035	0.0065	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Pyrene	0.23		0.035	0.0070	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Benzo[a]anthracene	0.071		0.035	0.0047	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B05 (0-1)

Lab Sample ID: 500-107641-12

Date Collected: 02/16/16 13:10

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 89.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.092		0.035	0.0096	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.064	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Di-n-octyl phthalate	<0.18		0.18	0.057	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Benzo[b]fluoranthene	0.17		0.035	0.0076	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Benzo[k]fluoranthene	0.070		0.035	0.010	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Benzo[a]pyrene	0.096		0.035	0.0068	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Indeno[1,2,3-cd]pyrene	0.053		0.035	0.0091	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Dibenz(a,h)anthracene	0.011	J	0.035	0.0068	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
Benzo[g,h,i]perylene	0.054		0.035	0.011	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1
3 & 4 Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	02/22/16 06:59	03/01/16 02:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	83		25 - 110	02/22/16 06:59	03/01/16 02:18	1
Phenol-d5	81		31 - 110	02/22/16 06:59	03/01/16 02:18	1
Nitrobenzene-d5	53		25 - 115	02/22/16 06:59	03/01/16 02:18	1
2-Fluorobiphenyl	71		25 - 119	02/22/16 06:59	03/01/16 02:18	1
2,4,6-Tribromophenol	72		35 - 137	02/22/16 06:59	03/01/16 02:18	1
Terphenyl-d14	142	X	36 - 134	02/22/16 06:59	03/01/16 02:18	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.22	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1
Arsenic	2.6		0.52	0.24	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1
Barium	23		0.52	0.095	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1
Beryllium	0.23		0.21	0.045	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1
Boron	7.9		2.6	0.36	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1
Cadmium	0.099	J	0.10	0.030	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1
Calcium	160000	B	100	34	mg/Kg	☼	02/23/16 16:44	02/26/16 05:56	10
Chromium	7.7	B	0.52	0.090	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1
Cobalt	3.3		0.26	0.059	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1
Copper	12		0.52	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1
Iron	7300	B	10	4.0	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1
Lead	33		0.26	0.13	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1
Magnesium	95000	B	52	21	mg/Kg	☼	02/23/16 16:44	02/26/16 05:56	10
Manganese	250		0.52	0.10	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1
Nickel	8.3		0.52	0.14	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1
Potassium	490		26	4.3	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1
Selenium	0.29	J	0.52	0.26	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1
Silver	<0.26		0.26	0.061	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1
Sodium	1200		52	6.9	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1
Thallium	<0.52		0.52	0.26	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1
Vanadium	9.9		0.26	0.076	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1
Zinc	41		1.0	0.33	mg/Kg	☼	02/23/16 16:44	02/26/16 03:45	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.33	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 22:05	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 22:05	1
Boron	0.59		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 22:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B05 (0-1)

Lab Sample ID: 500-107641-12

Date Collected: 02/16/16 13:10

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 89.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/21/16 16:00	02/23/16 22:05	1
Chromium	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:05	1
Cobalt	0.010	J	0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:05	1
Iron	<0.40		0.40	0.20	mg/L		02/21/16 16:00	02/23/16 22:05	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/21/16 16:00	02/23/16 22:05	1
Manganese	2.3		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:05	1
Nickel	0.012	J	0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:05	1
Selenium	<0.050		0.050	0.020	mg/L		02/21/16 16:00	02/23/16 22:05	1
Silver	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:05	1
Zinc	0.27	J B	0.50	0.020	mg/L		02/21/16 16:00	02/23/16 22:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.28		0.025	0.010	mg/L		02/23/16 09:20	02/25/16 04:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/21/16 16:00	02/22/16 20:18	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		02/21/16 16:00	02/22/16 20:18	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/16 15:15	02/23/16 11:20	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.018		0.018	0.0093	mg/Kg	☼	02/23/16 15:15	02/24/16 12:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.36		0.200	0.200	SU			02/19/16 18:42	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B07 (0-1)

Lab Sample ID: 500-107641-13

Date Collected: 02/16/16 13:25

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.014		0.014	0.0027	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Benzene	<0.0034		0.0034	0.00077	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Bromodichloromethane	<0.0034		0.0034	0.00058	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Bromoform	<0.0034		0.0034	0.00070	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Bromomethane	<0.0034 *		0.0034	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
2-Butanone (MEK)	<0.0034		0.0034	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Carbon disulfide	<0.0034		0.0034	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Carbon tetrachloride	<0.0034		0.0034	0.00074	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Chlorobenzene	<0.0034		0.0034	0.00081	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Chloroethane	<0.0034		0.0034	0.0014	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Chloroform	<0.0034		0.0034	0.00067	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Chloromethane	<0.0034		0.0034	0.00083	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
cis-1,2-Dichloroethene	<0.0034		0.0034	0.00070	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
cis-1,3-Dichloropropene	<0.0034		0.0034	0.00079	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Dibromochloromethane	<0.0034		0.0034	0.00040	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
1,1-Dichloroethane	<0.0034		0.0034	0.00071	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
1,2-Dichloroethane	<0.0034		0.0034	0.00051	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
1,1-Dichloroethene	<0.0034		0.0034	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
1,2-Dichloropropane	<0.0034		0.0034	0.00090	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
1,3-Dichloropropane, Total	<0.0034		0.0034	0.00097	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Ethylbenzene	<0.0034		0.0034	0.00086	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
2-Hexanone	<0.0034		0.0034	0.0011	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Methylene Chloride	<0.0034		0.0034	0.0026	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
4-Methyl-2-pentanone (MIBK)	<0.0034		0.0034	0.00071	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Methyl tert-butyl ether	<0.0034		0.0034	0.00081	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Styrene	<0.0034		0.0034	0.00081	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
1,1,2,2-Tetrachloroethane	<0.0034		0.0034	0.00055	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Tetrachloroethene	<0.0034		0.0034	0.00072	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Toluene	<0.0034		0.0034	0.0012	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
trans-1,2-Dichloroethene	<0.0034		0.0034	0.00086	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
trans-1,3-Dichloropropene	<0.0034		0.0034	0.00097	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
1,1,1-Trichloroethane	<0.0034		0.0034	0.00080	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
1,1,2-Trichloroethane	<0.0034		0.0034	0.00067	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Trichloroethene	<0.0034		0.0034	0.00093	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Vinyl acetate	<0.0034		0.0034	0.00092	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Vinyl chloride	<0.0034		0.0034	0.00082	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1
Xylenes, Total	<0.0069		0.0069	0.0013	mg/Kg	☼	02/17/16 08:40	02/22/16 20:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 122	02/17/16 08:40	02/22/16 20:38	1
Dibromofluoromethane	106		75 - 120	02/17/16 08:40	02/22/16 20:38	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 134	02/17/16 08:40	02/22/16 20:38	1
Toluene-d8 (Surr)	111		75 - 122	02/17/16 08:40	02/22/16 20:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.080	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B07 (0-1)

Lab Sample ID: 500-107641-13

Date Collected: 02/16/16 13:25

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Naphthalene	<0.036		0.036	0.0055	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
2-Methylnaphthalene	<0.036		0.036	0.0066	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
2,4-Dinitrophenol	<0.73		0.73	0.63	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Acenaphthylene	<0.036		0.036	0.0047	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Acenaphthene	<0.036		0.036	0.0065	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Hexachlorobenzene	<0.073		0.073	0.0083	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Phenanthrene	0.038		0.036	0.0050	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Anthracene	0.0071 J		0.036	0.0060	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Carbazole	<0.18		0.18	0.090	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Fluoranthene	0.073		0.036	0.0067	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Pyrene	0.11		0.036	0.0072	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Benzo[a]anthracene	0.036		0.036	0.0048	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B07 (0-1)

Lab Sample ID: 500-107641-13

Date Collected: 02/16/16 13:25

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.046		0.036	0.0098	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Benzo[b]fluoranthene	0.082		0.036	0.0078	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Benzo[k]fluoranthene	0.028 J		0.036	0.011	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Benzo[a]pyrene	0.044		0.036	0.0070	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Indeno[1,2,3-cd]pyrene	0.022 J		0.036	0.0093	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0070	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
Benzo[g,h,i]perylene	0.023 J		0.036	0.012	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	02/22/16 06:59	03/01/16 02:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	82		25 - 110	02/22/16 06:59	03/01/16 02:47	1
Phenol-d5	75		31 - 110	02/22/16 06:59	03/01/16 02:47	1
Nitrobenzene-d5	67		25 - 115	02/22/16 06:59	03/01/16 02:47	1
2-Fluorobiphenyl	71		25 - 119	02/22/16 06:59	03/01/16 02:47	1
2,4,6-Tribromophenol	59		35 - 137	02/22/16 06:59	03/01/16 02:47	1
Terphenyl-d14	140 X		36 - 134	02/22/16 06:59	03/01/16 02:47	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1
Arsenic	2.9		0.53	0.24	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1
Barium	28		0.53	0.096	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1
Beryllium	0.20 J		0.21	0.046	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1
Boron	7.0		2.6	0.37	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1
Cadmium	0.090 J		0.11	0.030	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1
Calcium	160000 B		110	34	mg/Kg	☼	02/23/16 16:44	02/26/16 06:00	10
Chromium	7.1 B		0.53	0.091	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1
Cobalt	3.8		0.26	0.059	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1
Copper	14		0.53	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1
Iron	7500 B		11	4.1	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1
Lead	45		0.26	0.13	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1
Magnesium	93000 B		53	21	mg/Kg	☼	02/23/16 16:44	02/26/16 06:00	10
Manganese	260		0.53	0.10	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1
Nickel	8.5		0.53	0.14	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1
Potassium	490		26	4.3	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1
Selenium	<0.53		0.53	0.26	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1
Silver	<0.26		0.26	0.062	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1
Sodium	1300		53	6.9	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1
Thallium	<0.53		0.53	0.26	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1
Vanadium	10		0.26	0.077	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1
Zinc	36		1.1	0.33	mg/Kg	☼	02/23/16 16:44	02/26/16 03:50	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.43 J		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 22:11	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 22:11	1
Boron	0.54		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 22:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B07 (0-1)

Lab Sample ID: 500-107641-13

Date Collected: 02/16/16 13:25

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/21/16 16:00	02/23/16 22:11	1
Chromium	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:11	1
Cobalt	0.011	J	0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:11	1
Iron	<0.40		0.40	0.20	mg/L		02/21/16 16:00	02/23/16 22:11	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/21/16 16:00	02/23/16 22:11	1
Manganese	2.1		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:11	1
Nickel	0.016	J	0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:11	1
Selenium	<0.050		0.050	0.020	mg/L		02/21/16 16:00	02/23/16 22:11	1
Silver	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:11	1
Zinc	0.63	B	0.50	0.020	mg/L		02/21/16 16:00	02/23/16 22:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.082		0.025	0.010	mg/L		02/23/16 09:20	02/25/16 04:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/21/16 16:00	02/22/16 20:22	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		02/21/16 16:00	02/22/16 20:22	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/16 15:15	02/23/16 11:22	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.018		0.018	0.0094	mg/Kg	☼	02/23/16 15:15	02/24/16 12:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.47		0.200	0.200	SU			02/19/16 18:52	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B09 (0-1)

Lab Sample ID: 500-107641-14

Date Collected: 02/16/16 13:30

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0032	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Benzene	<0.0041		0.0041	0.00091	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Bromodichloromethane	<0.0041		0.0041	0.00069	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Bromoform	<0.0041		0.0041	0.00083	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
2-Butanone (MEK)	<0.0041		0.0041	0.0015	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Carbon disulfide	<0.0041		0.0041	0.0015	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Carbon tetrachloride	<0.0041		0.0041	0.00088	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Chlorobenzene	<0.0041		0.0041	0.00097	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Chloroethane	<0.0041		0.0041	0.0017	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Chloroform	<0.0041		0.0041	0.00080	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Chloromethane	<0.0041		0.0041	0.00098	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
cis-1,2-Dichloroethene	<0.0041		0.0041	0.00083	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
cis-1,3-Dichloropropene	<0.0041		0.0041	0.00093	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Dibromochloromethane	<0.0041		0.0041	0.00047	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
1,1-Dichloroethane	<0.0041		0.0041	0.00084	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
1,2-Dichloroethane	<0.0041		0.0041	0.00061	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
1,1-Dichloroethene	<0.0041		0.0041	0.0015	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
1,2-Dichloropropane	<0.0041		0.0041	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
1,3-Dichloropropane, Total	<0.0041		0.0041	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Ethylbenzene	<0.0041		0.0041	0.0010	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Methylene Chloride	<0.0041		0.0041	0.0031	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.00084	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Methyl tert-butyl ether	<0.0041		0.0041	0.00097	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Styrene	<0.0041		0.0041	0.00096	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
1,1,2,2-Tetrachloroethane	<0.0041		0.0041	0.00065	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Tetrachloroethene	<0.0041		0.0041	0.00085	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Toluene	<0.0041		0.0041	0.0014	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
trans-1,2-Dichloroethene	<0.0041		0.0041	0.0010	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
trans-1,3-Dichloropropene	<0.0041		0.0041	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
1,1,1-Trichloroethane	<0.0041		0.0041	0.00095	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
1,1,2-Trichloroethane	<0.0041		0.0041	0.00079	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Trichloroethene	<0.0041		0.0041	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Vinyl acetate	<0.0041		0.0041	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Vinyl chloride	<0.0041		0.0041	0.00097	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1
Xylenes, Total	<0.0082		0.0082	0.0015	mg/Kg	☼	02/17/16 08:40	02/23/16 10:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 122	02/17/16 08:40	02/23/16 10:57	1
Dibromofluoromethane	105		75 - 120	02/17/16 08:40	02/23/16 10:57	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	02/17/16 08:40	02/23/16 10:57	1
Toluene-d8 (Surr)	110		75 - 122	02/17/16 08:40	02/23/16 10:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B09 (0-1)

Lab Sample ID: 500-107641-14

Date Collected: 02/16/16 13:30

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
2,4-Dichlorophenol	<0.37		0.37	0.090	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
2-Methylnaphthalene	<0.037		0.037	0.0069	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Phenanthrene	0.067		0.037	0.0053	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Anthracene	0.014 J		0.037	0.0063	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Fluoranthene	0.16		0.037	0.0070	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Pyrene	0.24		0.037	0.0075	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Benzo[a]anthracene	0.076		0.037	0.0051	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B09 (0-1)

Lab Sample ID: 500-107641-14

Date Collected: 02/16/16 13:30

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.097		0.037	0.010	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Benzo[b]fluoranthene	0.15		0.037	0.0081	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Benzo[k]fluoranthene	0.059		0.037	0.011	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Benzo[a]pyrene	0.087		0.037	0.0073	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Indeno[1,2,3-cd]pyrene	0.046		0.037	0.0098	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Dibenz(a,h)anthracene	0.0096	J	0.037	0.0073	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
Benzo[g,h,i]perylene	0.043		0.037	0.012	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	02/22/16 06:59	03/01/16 03:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	74		25 - 110	02/22/16 06:59	03/01/16 03:16	1
Phenol-d5	58		31 - 110	02/22/16 06:59	03/01/16 03:16	1
Nitrobenzene-d5	68		25 - 115	02/22/16 06:59	03/01/16 03:16	1
2-Fluorobiphenyl	74		25 - 119	02/22/16 06:59	03/01/16 03:16	1
2,4,6-Tribromophenol	35		35 - 137	02/22/16 06:59	03/01/16 03:16	1
Terphenyl-d14	134		36 - 134	02/22/16 06:59	03/01/16 03:16	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	☼	02/23/16 16:44	02/26/16 03:56	1
Arsenic	4.6		0.58	0.27	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1
Barium	36		0.58	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1
Beryllium	0.42		0.23	0.050	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1
Boron	4.7		2.9	0.40	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1
Cadmium	0.16		0.12	0.034	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1
Calcium	96000	B	120	37	mg/Kg	☼	02/23/16 16:44	02/26/16 06:04	10
Chromium	10	B	0.58	0.10	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1
Cobalt	6.4		0.29	0.065	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1
Copper	13		0.58	0.13	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1
Iron	10000	B	12	4.5	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1
Lead	63		0.29	0.14	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1
Magnesium	40000	B	5.8	2.4	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1
Manganese	380		0.58	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1
Nickel	13		0.58	0.16	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1
Potassium	650		29	4.7	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1
Selenium	<0.58		0.58	0.29	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1
Sodium	1400		58	7.6	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1
Thallium	<0.58		0.58	0.28	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1
Vanadium	15		0.29	0.085	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1
Zinc	67		1.2	0.37	mg/Kg	☼	02/23/16 16:44	02/26/16 03:56	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.26	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 22:18	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 22:18	1
Boron	0.50		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 22:18	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B09 (0-1)

Lab Sample ID: 500-107641-14

Date Collected: 02/16/16 13:30

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/21/16 16:00	02/23/16 22:18	1
Chromium	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:18	1
Cobalt	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:18	1
Iron	<0.40		0.40	0.20	mg/L		02/21/16 16:00	02/23/16 22:18	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/21/16 16:00	02/23/16 22:18	1
Manganese	0.90		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:18	1
Nickel	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:18	1
Selenium	<0.050		0.050	0.020	mg/L		02/21/16 16:00	02/23/16 22:18	1
Silver	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:18	1
Zinc	0.24	J B	0.50	0.020	mg/L		02/21/16 16:00	02/23/16 22:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.2		0.025	0.010	mg/L		02/23/16 09:20	02/25/16 04:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/21/16 16:00	02/22/16 20:27	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		02/21/16 16:00	02/22/16 20:27	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/16 15:15	02/23/16 11:24	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.017	0.0091	mg/Kg	☼	02/23/16 15:15	02/24/16 12:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.55		0.200	0.200	SU			02/19/16 19:02	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B10 (0-1)

Lab Sample ID: 500-107641-15

Date Collected: 02/16/16 13:40

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 89.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0035	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Benzene	<0.0046		0.0046	0.0010	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Bromodichloromethane	<0.0046		0.0046	0.00077	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Bromoform	<0.0046		0.0046	0.00093	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
2-Butanone (MEK)	<0.0046		0.0046	0.0016	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Carbon disulfide	<0.0046		0.0046	0.0017	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Carbon tetrachloride	<0.0046		0.0046	0.00098	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Chlorobenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Chloroethane	<0.0046		0.0046	0.0019	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Chloroform	<0.0046		0.0046	0.00089	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Chloromethane	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
cis-1,2-Dichloroethene	<0.0046		0.0046	0.00093	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
cis-1,3-Dichloropropene	<0.0046		0.0046	0.0010	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Dibromochloromethane	<0.0046		0.0046	0.00052	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
1,1-Dichloroethane	<0.0046		0.0046	0.00094	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
1,2-Dichloroethane	<0.0046		0.0046	0.00068	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
1,1-Dichloroethene	<0.0046		0.0046	0.0017	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
1,2-Dichloropropane	<0.0046		0.0046	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
1,3-Dichloropropane, Total	<0.0046		0.0046	0.0013	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Ethylbenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Methylene Chloride	<0.0046		0.0046	0.0034	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.00094	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Methyl tert-butyl ether	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Styrene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
1,1,2,2-Tetrachloroethane	<0.0046		0.0046	0.00072	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Tetrachloroethene	<0.0046		0.0046	0.00095	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Toluene	<0.0046		0.0046	0.0016	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
trans-1,2-Dichloroethene	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
trans-1,3-Dichloropropene	<0.0046		0.0046	0.0013	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
1,1,1-Trichloroethane	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
1,1,2-Trichloroethane	<0.0046		0.0046	0.00088	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Trichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Vinyl acetate	<0.0046		0.0046	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Vinyl chloride	<0.0046		0.0046	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1
Xylenes, Total	<0.0091		0.0091	0.0017	mg/Kg	☼	02/17/16 08:40	02/23/16 11:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 122	02/17/16 08:40	02/23/16 11:22	1
Dibromofluoromethane	105		75 - 120	02/17/16 08:40	02/23/16 11:22	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 134	02/17/16 08:40	02/23/16 11:22	1
Toluene-d8 (Surr)	110		75 - 122	02/17/16 08:40	02/23/16 11:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.081	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B10 (0-1)

Lab Sample ID: 500-107641-15

Date Collected: 02/16/16 13:40

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 89.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Hexachloroethane	<0.18		0.18	0.056	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
2-Chlorophenol	<0.18		0.18	0.063	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Hexachlorobutadiene	<0.18		0.18	0.058	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
2,4,6-Trichlorophenol	<0.36		0.36	0.13	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
2,4,5-Trichlorophenol	<0.36		0.36	0.084	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
2-Methylnaphthalene	<0.036		0.036	0.0067	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
2-Nitrophenol	<0.36		0.36	0.087	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Acenaphthene	<0.036		0.036	0.0066	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Fluorene	<0.036		0.036	0.0052	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.29	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Phenanthrene	0.016	J	0.036	0.0051	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Anthracene	<0.036		0.036	0.0061	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Carbazole	<0.18		0.18	0.092	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Fluoranthene	0.028	J	0.036	0.0068	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Pyrene	0.047		0.036	0.0073	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Butyl benzyl phthalate	<0.18		0.18	0.070	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Benzo[a]anthracene	0.016	J	0.036	0.0049	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B10 (0-1)

Lab Sample ID: 500-107641-15

Date Collected: 02/16/16 13:40

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 89.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.021	J	0.036	0.010	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Di-n-octyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Benzo[b]fluoranthene	0.037		0.036	0.0079	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Benzo[k]fluoranthene	0.016	J	0.036	0.011	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Benzo[a]pyrene	0.020	J	0.036	0.0071	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0095	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0071	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
Benzo[g,h,i]perylene	<0.036		0.036	0.012	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	02/22/16 06:59	03/01/16 03:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	76		25 - 110	02/22/16 06:59	03/01/16 03:46	1
Phenol-d5	66		31 - 110	02/22/16 06:59	03/01/16 03:46	1
Nitrobenzene-d5	61		25 - 115	02/22/16 06:59	03/01/16 03:46	1
2-Fluorobiphenyl	67		25 - 119	02/22/16 06:59	03/01/16 03:46	1
2,4,6-Tribromophenol	48		35 - 137	02/22/16 06:59	03/01/16 03:46	1
Terphenyl-d14	139	X	36 - 134	02/22/16 06:59	03/01/16 03:46	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Arsenic	5.3		0.54	0.25	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Barium	35		0.54	0.098	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Beryllium	0.37		0.22	0.047	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Boron	5.7		2.7	0.38	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Cadmium	0.094	J	0.11	0.031	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Calcium	98000	B	110	35	mg/Kg	☼	02/23/16 16:44	02/26/16 06:08	10
Chromium	9.6	B	0.54	0.093	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Cobalt	6.8		0.27	0.061	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Copper	13		0.54	0.12	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Iron	11000	B	11	4.1	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Lead	29		0.27	0.13	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Magnesium	39000	B	5.4	2.2	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Manganese	340		0.54	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Nickel	15		0.54	0.15	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Potassium	860		27	4.4	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Selenium	<0.54		0.54	0.27	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Sodium	1100		54	7.1	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Thallium	<0.54		0.54	0.26	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Vanadium	15		0.27	0.079	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1
Zinc	56		1.1	0.34	mg/Kg	☼	02/23/16 16:44	02/26/16 04:09	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.41	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 22:25	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 22:25	1
Boron	0.57		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 22:25	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B10 (0-1)

Lab Sample ID: 500-107641-15

Date Collected: 02/16/16 13:40

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 89.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/21/16 16:00	02/23/16 22:25	1
Chromium	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:25	1
Cobalt	0.017	J	0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:25	1
Iron	<0.40		0.40	0.20	mg/L		02/21/16 16:00	02/23/16 22:25	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/21/16 16:00	02/23/16 22:25	1
Manganese	5.7		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:25	1
Nickel	0.016	J	0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:25	1
Selenium	<0.050		0.050	0.020	mg/L		02/21/16 16:00	02/23/16 22:25	1
Silver	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:25	1
Zinc	0.37	J B	0.50	0.020	mg/L		02/21/16 16:00	02/23/16 22:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.4		0.025	0.010	mg/L		02/23/16 09:20	02/25/16 04:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/21/16 16:00	02/22/16 20:31	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		02/21/16 16:00	02/22/16 20:31	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/16 15:15	02/23/16 11:26	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019		0.017	0.0090	mg/Kg	☼	02/23/16 15:15	02/24/16 12:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.68		0.200	0.200	SU			02/19/16 19:12	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B11 (0-1)

Lab Sample ID: 500-107641-16

Date Collected: 02/16/16 13:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0035	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Benzene	<0.0045		0.0045	0.00099	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Bromodichloromethane	<0.0045		0.0045	0.00075	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Bromoform	<0.0045		0.0045	0.00091	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Bromomethane	<0.0045		0.0045	0.0016	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Carbon disulfide	<0.0045		0.0045	0.0016	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Carbon tetrachloride	<0.0045		0.0045	0.00096	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Chloroethane	<0.0045		0.0045	0.0019	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Chloroform	<0.0045		0.0045	0.00087	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00091	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Dibromochloromethane	<0.0045		0.0045	0.00051	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
1,1-Dichloroethane	<0.0045		0.0045	0.00092	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
1,2-Dichloroethane	<0.0045		0.0045	0.00066	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
1,1-Dichloroethene	<0.0045		0.0045	0.0016	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Methylene Chloride	<0.0045		0.0045	0.0034	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00092	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Styrene	<0.0045		0.0045	0.0010	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
1,1,2,2-Tetrachloroethane	<0.0045		0.0045	0.00071	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Tetrachloroethene	<0.0045		0.0045	0.00093	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0010	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00087	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Vinyl acetate	<0.0045		0.0045	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1
Xylenes, Total	<0.0089		0.0089	0.0017	mg/Kg	☼	02/17/16 08:40	02/23/16 11:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 122	02/17/16 08:40	02/23/16 11:47	1
Dibromofluoromethane	105		75 - 120	02/17/16 08:40	02/23/16 11:47	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	02/17/16 08:40	02/23/16 11:47	1
Toluene-d8 (Surr)	109		75 - 122	02/17/16 08:40	02/23/16 11:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.081	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B11 (0-1)

Lab Sample ID: 500-107641-16

Date Collected: 02/16/16 13:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Hexachloroethane	<0.18		0.18	0.056	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
2-Chlorophenol	<0.18		0.18	0.063	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Hexachlorobutadiene	<0.18		0.18	0.058	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
2,4,6-Trichlorophenol	<0.36		0.36	0.13	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
2,4,5-Trichlorophenol	<0.36		0.36	0.084	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
2-Methylnaphthalene	<0.036		0.036	0.0067	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
2-Nitrophenol	<0.36		0.36	0.087	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
2,4-Dinitrophenol	<0.74		0.74	0.64	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Acenaphthene	<0.036		0.036	0.0066	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.29	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Phenanthrene	0.016	J	0.036	0.0051	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Anthracene	<0.036		0.036	0.0061	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Carbazole	<0.18		0.18	0.092	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Fluoranthene	0.030	J	0.036	0.0068	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Pyrene	0.046		0.036	0.0073	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Butyl benzyl phthalate	<0.18		0.18	0.070	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Benzo[a]anthracene	0.016	J	0.036	0.0049	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B11 (0-1)

Lab Sample ID: 500-107641-16

Date Collected: 02/16/16 13:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.021	J	0.036	0.010	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Di-n-octyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Benzo[b]fluoranthene	0.040		0.036	0.0079	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Benzo[k]fluoranthene	0.018	J	0.036	0.011	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Benzo[a]pyrene	0.021	J	0.036	0.0071	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Indeno[1,2,3-cd]pyrene	0.018	J	0.036	0.0095	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0071	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
Benzo[g,h,i]perylene	0.018	J	0.036	0.012	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	02/22/16 06:59	03/01/16 04:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	84		25 - 110	02/22/16 06:59	03/01/16 04:15	1
Phenol-d5	75		31 - 110	02/22/16 06:59	03/01/16 04:15	1
Nitrobenzene-d5	63		25 - 115	02/22/16 06:59	03/01/16 04:15	1
2-Fluorobiphenyl	68		25 - 119	02/22/16 06:59	03/01/16 04:15	1
2,4,6-Tribromophenol	63		35 - 137	02/22/16 06:59	03/01/16 04:15	1
Terphenyl-d14	141	X	36 - 134	02/22/16 06:59	03/01/16 04:15	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Arsenic	4.8		0.54	0.25	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Barium	46		0.54	0.099	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Beryllium	0.35		0.22	0.047	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Boron	5.0		2.7	0.38	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Cadmium	0.14		0.11	0.031	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Calcium	90000	B	110	35	mg/Kg	☼	02/23/16 16:44	02/26/16 06:13	10
Chromium	9.7	B	0.54	0.093	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Cobalt	6.2		0.27	0.061	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Copper	11		0.54	0.12	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Iron	9500	B	11	4.2	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Lead	33		0.27	0.13	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Magnesium	37000	B	5.4	2.2	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Manganese	350		0.54	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Nickel	12		0.54	0.15	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Potassium	690		27	4.4	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Selenium	<0.54		0.54	0.27	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Sodium	1300		54	7.1	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Vanadium	14		0.27	0.079	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1
Zinc	48		1.1	0.34	mg/Kg	☼	02/23/16 16:44	02/26/16 04:14	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.42	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 22:32	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 22:32	1
Boron	0.22	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 22:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Client Sample ID: 3011-18-B11 (0-1)

Lab Sample ID: 500-107641-16

Date Collected: 02/16/16 13:50

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/21/16 16:00	02/23/16 22:32	1
Chromium	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:32	1
Cobalt	0.018	J	0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:32	1
Iron	<0.40		0.40	0.20	mg/L		02/21/16 16:00	02/23/16 22:32	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/21/16 16:00	02/23/16 22:32	1
Manganese	4.2		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:32	1
Nickel	0.013	J	0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:32	1
Selenium	<0.050		0.050	0.020	mg/L		02/21/16 16:00	02/23/16 22:32	1
Silver	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:32	1
Zinc	0.21	J B	0.50	0.020	mg/L		02/21/16 16:00	02/23/16 22:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.92		0.025	0.010	mg/L		02/23/16 09:20	02/25/16 04:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/21/16 16:00	02/22/16 20:35	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		02/21/16 16:00	02/22/16 20:35	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/16 15:15	02/23/16 11:28	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020		0.017	0.0090	mg/Kg	☼	02/23/16 15:15	02/24/16 12:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.70		0.200	0.200	SU			02/19/16 19:22	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC 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.
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-3

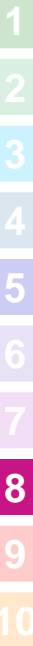
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

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

Chain of Custody Record

Lab Job #: 500-107641

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative							Preservative Key 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		Lab Project #		Parameter									
Project Location/State		Lab PM											
Sampler													
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOC	Soils	Total Pb Mobile	Total SP The body	Pb/Cd Soil		Comments
			Date	Time									
5		3011-18-1308 (0-1)	2/16/16	1130	2	S	X	X	X	X			
6		3011-18-1306 (0-1)	2/16/16	1135	2	S	X	X	X	X			
7		3011-18-1304 (0-1)	2/16/16	1140	2	S	X	X	X	X			
8		3011-18-1302 (0-1)	2/16/16	1145	2	S	X	X	X	X			
9		3011-18-1301 (0-1)	2/16/16	1250	2	S	X	X	X	X			
10		3011-18-1301 (0-1) D	2/16/16	1258	2	S	X	X	X	X			
11		3011-18-1303 (0-1)	2/16/16	1305	2	S	X	X	X	X			
12		3011-18-1305 (0-1)	2/16/16	1310	2	S	X	X	X	X			
13		3011-18-1307 (0-1)	2/16/16	1325	2	S	X	X	X	X			
14		3011-18-1309 (0-1)	2/16/16	1330	2	S	X	X	X	X			

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>[Signature]</u> Company: <u>EE</u> Date: <u>2-16-16</u> Time: <u>1530</u>	Received By: <u>[Signature]</u> Company: <u>A</u> Date: <u>2/16/16</u> Time: <u>1530</u>	Lab Courier: <u>TA</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/16/16</u> Time: <u>1215</u>	Received By: <u>[Signature]</u> Company: <u>TA-CERT</u> Date: <u>2/17/16</u> Time: <u>0745</u>	Shipped: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: _____

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

Client Comments: _____

Lab Comments: _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 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 #: 500-107641
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
EE		1009741-0008.d									
Project Name		Lab Project #		Date		Time		# of Containers		Matrix	
FL 78		S0011E04		2/16/16		1340		2 5		VOC	
Project Location/State		Lab PM		Date		Time		# of Containers		Matrix	
Kane County, FL		D. Wright		2/16/16		1350		2 3		SVOC	
Sampler		Lab PM		Date		Time		# of Containers		Matrix	
J. Cooper		D. Wright		2/16/16		1350		2 3		Total PCB Meths Turbidity TSS pH/95 Solids	
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix					
15		Soil-18-B10 (0-1)	2/16/16	1340	2 5	X	X	X	X	X	
16		Soil-18-B11 (0-1)	2/16/16	1350	2 3	X	X	X	X	X	

- Preservative Key
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

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days ___ Other 10 Days

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>[Signature]</u> Company: EE Date: 2/16/16 Time: 1530	Received By: <u>[Signature]</u> Company: TA Date: 2/16/16 Time: 1530
Relinquished By: <u>[Signature]</u> Company: TA Date: 2/16/16 Time: 1715	Received By: <u>[Signature]</u> Company: TA-CRT Date: 2/17/16 Time: 0948

Lab Courier: [Signature]
 Shipped: _____
 Hand Delivered: _____

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

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107641-3

Login Number: 107641

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.8,2.5,3.2,3.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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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: 500-107641-4
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/1/2016 5:25:21 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

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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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-4

Job ID: 500-107641-4

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107641-4

Comments

No additional comments.

Receipt

The samples were received on 2/17/2016 7:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.5° C, 2.8° C, 3.2° C and 3.5° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS associated with 500-324044: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-19-B01 (0-1) (500-107641-17), (500-107641-E-1-D MS) and (500-107641-E-1-E MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324170 and analytical batch 500-324562 contained Calcium and Magnesium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-4

Client Sample ID: 3011-19-B01 (0-1)

Lab Sample ID: 500-107641-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.056		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.013	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.082		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.20		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.061		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.080		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.12		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.033	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.075		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.069		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.23	J	1.1	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	3.0		0.56	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	29		0.56	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.30		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	5.9		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	190000	B	110	36	mg/Kg	10	☼	6010B	Total/NA
Chromium	8.5	B	0.56	0.096	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.8		0.28	0.063	mg/Kg	1	☼	6010B	Total/NA
Copper	8.2		0.56	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	6300	B	11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	51		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	120000	B	56	23	mg/Kg	10	☼	6010B	Total/NA
Manganese	250		0.56	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.7		0.56	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	570		28	4.5	mg/Kg	1	☼	6010B	Total/NA
Sodium	900		56	7.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	11		0.28	0.081	mg/Kg	1	☼	6010B	Total/NA
Zinc	54		1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.39	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.37	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.98		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.54	B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.86		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.021		0.019	0.0099	mg/Kg	1	☼	7471B	Total/NA
pH	8.42		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107641-17	3011-19-B01 (0-1)	Solid	02/16/16 12:00	02/17/16 07:45

1

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-4

Client Sample ID: 3011-19-B01 (0-1)

Lab Sample ID: 500-107641-17

Date Collected: 02/16/16 12:00

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0039	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Benzene	<0.0051		0.0051	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Bromodichloromethane	<0.0051		0.0051	0.00085	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Bromoform	<0.0051		0.0051	0.0010	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Bromomethane	<0.0051		0.0051	0.0019	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
2-Butanone (MEK)	<0.0051		0.0051	0.0018	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Carbon disulfide	<0.0051		0.0051	0.0019	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Carbon tetrachloride	<0.0051		0.0051	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Chlorobenzene	<0.0051		0.0051	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Chloroethane	<0.0051		0.0051	0.0021	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Chloroform	<0.0051		0.0051	0.00099	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Chloromethane	<0.0051		0.0051	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
cis-1,2-Dichloroethene	<0.0051		0.0051	0.0010	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
cis-1,3-Dichloropropene	<0.0051		0.0051	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Dibromochloromethane	<0.0051		0.0051	0.00058	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
1,1-Dichloroethane	<0.0051		0.0051	0.0010	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
1,2-Dichloroethane	<0.0051		0.0051	0.00075	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
1,1-Dichloroethene	<0.0051		0.0051	0.0018	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
1,2-Dichloropropane	<0.0051		0.0051	0.0013	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
1,3-Dichloropropene, Total	<0.0051		0.0051	0.0014	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Ethylbenzene	<0.0051		0.0051	0.0013	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
2-Hexanone	<0.0051		0.0051	0.0016	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Methylene Chloride	<0.0051		0.0051	0.0038	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
4-Methyl-2-pentanone (MIBK)	<0.0051		0.0051	0.0010	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Methyl tert-butyl ether	<0.0051		0.0051	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Styrene	<0.0051		0.0051	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
1,1,2,2-Tetrachloroethane	<0.0051		0.0051	0.00080	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Tetrachloroethene	<0.0051		0.0051	0.0011	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Toluene	<0.0051		0.0051	0.0018	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
trans-1,2-Dichloroethene	<0.0051		0.0051	0.0013	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
trans-1,3-Dichloropropene	<0.0051		0.0051	0.0014	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
1,1,1-Trichloroethane	<0.0051		0.0051	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
1,1,2-Trichloroethane	<0.0051		0.0051	0.00098	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Trichloroethene	<0.0051		0.0051	0.0014	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Vinyl acetate	<0.0051		0.0051	0.0014	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Vinyl chloride	<0.0051		0.0051	0.0012	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1
Xylenes, Total	<0.010		0.010	0.0019	mg/Kg	☼	02/17/16 08:40	02/23/16 12:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 122	02/17/16 08:40	02/23/16 12:12	1
Dibromofluoromethane	108		75 - 120	02/17/16 08:40	02/23/16 12:12	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 134	02/17/16 08:40	02/23/16 12:12	1
Toluene-d8 (Surr)	109		75 - 122	02/17/16 08:40	02/23/16 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-4

Client Sample ID: 3011-19-B01 (0-1)

Lab Sample ID: 500-107641-17

Date Collected: 02/16/16 12:00

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.046	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
2-Methylnaphthalene	<0.038		0.038	0.0070	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Phenanthrene	0.056		0.038	0.0053	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Anthracene	0.013 J		0.038	0.0064	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Fluoranthene	0.082		0.038	0.0071	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Pyrene	0.20		0.038	0.0076	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Benzo[a]anthracene	0.061		0.038	0.0051	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-4

Client Sample ID: 3011-19-B01 (0-1)

Lab Sample ID: 500-107641-17

Date Collected: 02/16/16 12:00

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.080		0.038	0.010	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Benzo[b]fluoranthene	0.12		0.038	0.0082	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Benzo[k]fluoranthene	0.033 J		0.038	0.011	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Benzo[a]pyrene	0.075		0.038	0.0074	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0099	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
Benzo[g,h,i]perylene	0.069		0.038	0.012	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	02/22/16 06:59	02/28/16 19:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	75		25 - 110	02/22/16 06:59	02/28/16 19:08	1
Phenol-d5	71		31 - 110	02/22/16 06:59	02/28/16 19:08	1
Nitrobenzene-d5	67		25 - 115	02/22/16 06:59	02/28/16 19:08	1
2-Fluorobiphenyl	74		25 - 119	02/22/16 06:59	02/28/16 19:08	1
2,4,6-Tribromophenol	82		35 - 137	02/22/16 06:59	02/28/16 19:08	1
Terphenyl-d14	201 X		36 - 134	02/22/16 06:59	02/28/16 19:08	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.23 J		1.1	0.23	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1
Arsenic	3.0		0.56	0.26	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1
Barium	29		0.56	0.10	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1
Beryllium	0.30		0.22	0.048	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1
Boron	5.9		2.8	0.39	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1
Cadmium	0.11		0.11	0.032	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1
Calcium	190000 B		110	36	mg/Kg	☼	02/23/16 16:44	02/26/16 06:17	10
Chromium	8.5 B		0.56	0.096	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1
Cobalt	3.8		0.28	0.063	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1
Copper	8.2		0.56	0.12	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1
Iron	6300 B		11	4.3	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1
Lead	51		0.28	0.14	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1
Magnesium	120000 B		56	23	mg/Kg	☼	02/23/16 16:44	02/26/16 06:17	10
Manganese	250		0.56	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1
Nickel	7.7		0.56	0.15	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1
Potassium	570		28	4.5	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1
Selenium	<0.56		0.56	0.28	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1
Silver	<0.28		0.28	0.065	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1
Sodium	900		56	7.3	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1
Thallium	<0.56		0.56	0.27	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1
Vanadium	11		0.28	0.081	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1
Zinc	54		1.1	0.35	mg/Kg	☼	02/23/16 16:44	02/26/16 04:19	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.39 J		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 22:38	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 22:38	1
Boron	0.37 J		0.50	0.050	mg/L		02/21/16 16:00	02/23/16 22:38	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-4

Client Sample ID: 3011-19-B01 (0-1)

Lab Sample ID: 500-107641-17

Date Collected: 02/16/16 12:00

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/21/16 16:00	02/23/16 22:38	1
Chromium	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:38	1
Cobalt	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:38	1
Iron	<0.40		0.40	0.20	mg/L		02/21/16 16:00	02/23/16 22:38	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/21/16 16:00	02/23/16 22:38	1
Manganese	0.98		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:38	1
Nickel	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:38	1
Selenium	<0.050		0.050	0.020	mg/L		02/21/16 16:00	02/23/16 22:38	1
Silver	<0.025		0.025	0.010	mg/L		02/21/16 16:00	02/23/16 22:38	1
Zinc	0.54	B	0.50	0.020	mg/L		02/21/16 16:00	02/23/16 22:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.86		0.025	0.010	mg/L		02/23/16 09:20	02/25/16 05:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/21/16 16:00	02/22/16 20:39	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		02/21/16 16:00	02/22/16 20:39	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		02/22/16 15:15	02/23/16 11:30	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.021		0.019	0.0099	mg/Kg	☼	02/23/16 15:15	02/24/16 12:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.42		0.200	0.200	SU			02/19/16 19:32	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-4

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC 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.
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-4

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107641-4

Login Number: 107641

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.8,2.5,3.2,3.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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: 500-107641-6
Client Project/Site: IDOT - IL 38 - WO 008

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
3/1/2016 5:26:21 PM
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Designee for
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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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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-6

Job ID: 500-107641-6

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107641-6

Comments

No additional comments.

Receipt

The samples were received on 2/17/2016 7:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.5° C, 2.8° C, 3.2° C and 3.5° C.

GC/MS VOA

Method(s) 8260B: Due to internal standard (ISTD) area failures, a dilution was required for the following sample: 3011-21-B01 (0-1) (500-107641-19). The sample was initially analyzed without dilution. All internal standards were outside the QC limits. The sample was re-analyzed with similar results. No usable data was obtained from the un-diluted runs. The sample was re-analyzed at a dilution using the methanol extraction method. All internal standard areas were within limits in the diluted run. Elevated reporting limits have been provided.

Method(s) 8260B: The following analyte recovered outside control limits for the LCS associated with 324385: Bromomethane. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 3011-21-B01 (0-1) (500-107641-19), (500-107641-E-1-D MS) and (500-107641-E-1-E MSD). The laboratory's SOP allows one acid and one base/neutral surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-324170 and analytical batch 500-324562 contained Calcium and Magnesium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-6

Client Sample ID: 3011-21-B01 (0-1)

Lab Sample ID: 500-107641-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0075	J	0.037	0.0058	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.011	J	0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.0080	J	0.037	0.0049	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.079		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.017	J	0.037	0.0063	mg/Kg	1	☼	8270D	Total/NA
Di-n-butyl phthalate	0.23		0.19	0.057	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.16		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.34		0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.11		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.15		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.10	J	0.19	0.068	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.24		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.12		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.15		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.15		0.037	0.0097	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.047		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.17		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.6		0.56	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	36		0.56	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.31		0.22	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	6.3		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.24		0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	140000	B	110	36	mg/Kg	10	☼	6010B	Total/NA
Chromium	11	B	0.56	0.097	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.2		0.28	0.064	mg/Kg	1	☼	6010B	Total/NA
Copper	14		0.56	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	8300	B	11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	150		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	55000	B	5.6	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	340		0.56	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	11		0.56	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	560		28	4.6	mg/Kg	1	☼	6010B	Total/NA
Sodium	1300		56	7.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.28	0.082	mg/Kg	1	☼	6010B	Total/NA
Zinc	79		1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.27	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.78		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.25	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.65		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.015	J	0.019	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.58		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-6

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-107641-19	3011-21-B01 (0-1)	Solid	02/16/16 11:25	02/17/16 07:45

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-6

Client Sample ID: 3011-21-B01 (0-1)

Lab Sample ID: 500-107641-19

Date Collected: 02/16/16 11:25

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 83.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.27		0.27	0.095	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Benzene	<0.014		0.014	0.0080	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Bromodichloromethane	<0.055		0.055	0.020	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Bromoform	<0.055	*	0.055	0.026	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Bromomethane	<0.11		0.11	0.044	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
2-Butanone (MEK)	<0.27		0.27	0.12	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Carbon disulfide	<0.11		0.11	0.044	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Carbon tetrachloride	<0.055		0.055	0.021	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Chlorobenzene	<0.055		0.055	0.021	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Chloroethane	<0.055		0.055	0.028	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Chloroform	<0.055		0.055	0.020	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Chloromethane	<0.055		0.055	0.018	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
cis-1,2-Dichloroethene	<0.055		0.055	0.022	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
cis-1,3-Dichloropropene	<0.055		0.055	0.023	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Dibromochloromethane	<0.055		0.055	0.027	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
1,1-Dichloroethane	<0.055		0.055	0.022	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
1,2-Dichloroethane	<0.055		0.055	0.021	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
1,1-Dichloroethene	<0.055		0.055	0.021	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
1,2-Dichloropropane	<0.055		0.055	0.023	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
1,3-Dichloropropene, Total	<0.055		0.055	0.023	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Ethylbenzene	<0.014		0.014	0.010	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
2-Hexanone	<0.27		0.27	0.085	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Methylene Chloride	<0.27		0.27	0.089	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
4-Methyl-2-pentanone (MIBK)	<0.27		0.27	0.12	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Methyl tert-butyl ether	<0.055		0.055	0.022	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Styrene	<0.055		0.055	0.021	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
1,1,2,2-Tetrachloroethane	<0.055		0.055	0.022	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Tetrachloroethene	<0.055		0.055	0.020	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Toluene	<0.014		0.014	0.0080	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
trans-1,2-Dichloroethene	<0.055		0.055	0.019	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
trans-1,3-Dichloropropene	<0.055		0.055	0.020	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
1,1,1-Trichloroethane	<0.055		0.055	0.021	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
1,1,2-Trichloroethane	<0.055		0.055	0.019	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Trichloroethene	<0.027		0.027	0.0090	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Vinyl acetate	<0.11		0.11	0.049	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Vinyl chloride	<0.027		0.027	0.014	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50
Xylenes, Total	<0.027		0.027	0.012	mg/Kg	☼	02/16/16 11:25	02/25/16 20:21	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		75 - 120	02/16/16 11:25	02/25/16 20:21	50
Dibromofluoromethane	83		75 - 120	02/16/16 11:25	02/25/16 20:21	50
1,2-Dichloroethane-d4 (Surr)	90		75 - 125	02/16/16 11:25	02/25/16 20:21	50
Toluene-d8 (Surr)	92		75 - 120	02/16/16 11:25	02/25/16 20:21	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.083	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-6

Client Sample ID: 3011-21-B01 (0-1)

Lab Sample ID: 500-107641-19

Date Collected: 02/16/16 11:25

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 83.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Naphthalene	0.0075	J	0.037	0.0058	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
2-Methylnaphthalene	0.011	J	0.037	0.0069	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Acenaphthylene	0.0080	J	0.037	0.0049	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Phenanthrene	0.079		0.037	0.0052	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Anthracene	0.017	J	0.037	0.0063	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Di-n-butyl phthalate	0.23		0.19	0.057	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Fluoranthene	0.16		0.037	0.0069	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Pyrene	0.34		0.037	0.0074	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Benzo[a]anthracene	0.11		0.037	0.0050	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-6

Client Sample ID: 3011-21-B01 (0-1)

Lab Sample ID: 500-107641-19

Date Collected: 02/16/16 11:25

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 83.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.15		0.037	0.010	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Bis(2-ethylhexyl) phthalate	0.10	J	0.19	0.068	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Benzo[b]fluoranthene	0.24		0.037	0.0081	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Benzo[k]fluoranthene	0.12		0.037	0.011	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Benzo[a]pyrene	0.15		0.037	0.0073	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Indeno[1,2,3-cd]pyrene	0.15		0.037	0.0097	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Dibenz(a,h)anthracene	0.047		0.037	0.0072	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
Benzo[g,h,i]perylene	0.17		0.037	0.012	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	02/22/16 06:59	02/28/16 19:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	83		25 - 110	02/22/16 06:59	02/28/16 19:36	1
Phenol-d5	74		31 - 110	02/22/16 06:59	02/28/16 19:36	1
Nitrobenzene-d5	73		25 - 115	02/22/16 06:59	02/28/16 19:36	1
2-Fluorobiphenyl	78		25 - 119	02/22/16 06:59	02/28/16 19:36	1
2,4,6-Tribromophenol	76		35 - 137	02/22/16 06:59	02/28/16 19:36	1
Terphenyl-d14	202	X	36 - 134	02/22/16 06:59	02/28/16 19:36	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	☼	02/23/16 16:44	02/26/16 04:29	1
Arsenic	3.6		0.56	0.26	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1
Barium	36		0.56	0.10	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1
Beryllium	0.31		0.22	0.049	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1
Boron	6.3		2.8	0.39	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1
Cadmium	0.24		0.11	0.033	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1
Calcium	140000	B	110	36	mg/Kg	☼	02/23/16 16:44	02/26/16 06:26	10
Chromium	11	B	0.56	0.097	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1
Cobalt	4.2		0.28	0.064	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1
Copper	14		0.56	0.12	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1
Iron	8300	B	11	4.3	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1
Lead	150		0.28	0.14	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1
Magnesium	55000	B	5.6	2.3	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1
Manganese	340		0.56	0.11	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1
Nickel	11		0.56	0.15	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1
Potassium	560		28	4.6	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1
Selenium	<0.56		0.56	0.28	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1
Silver	<0.28		0.28	0.066	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1
Sodium	1300		56	7.4	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1
Vanadium	12		0.28	0.082	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1
Zinc	79		1.1	0.36	mg/Kg	☼	02/23/16 16:44	02/26/16 04:29	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.31	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 22:52	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/21/16 16:00	02/23/16 22:52	1
Boron	0.27	J	0.50	0.050	mg/L		02/21/16 16:00	02/23/16 22:52	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-6

Client Sample ID: 3011-21-B01 (0-1)

Lab Sample ID: 500-107641-19

Date Collected: 02/16/16 11:25

Matrix: Solid

Date Received: 02/17/16 07:45

Percent Solids: 83.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	02/21/16 16:00	02/23/16 22:52	1
Chromium	<0.025		0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 22:52	1
Cobalt	<0.025		0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 22:52	1
Iron	<0.40		0.40	0.20	mg/L	-	02/21/16 16:00	02/23/16 22:52	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	02/21/16 16:00	02/23/16 22:52	1
Manganese	0.78		0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 22:52	1
Nickel	<0.025		0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 22:52	1
Selenium	<0.050		0.050	0.020	mg/L	-	02/21/16 16:00	02/23/16 22:52	1
Silver	<0.025		0.025	0.010	mg/L	-	02/21/16 16:00	02/23/16 22:52	1
Zinc	0.25	J B	0.50	0.020	mg/L	-	02/21/16 16:00	02/23/16 22:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.65		0.025	0.010	mg/L	-	02/23/16 09:20	02/25/16 05:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	02/21/16 16:00	02/22/16 20:55	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L	-	02/21/16 16:00	02/22/16 20:55	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	02/22/16 15:15	02/23/16 11:34	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	J	0.019	0.010	mg/Kg	☼	02/23/16 15:15	02/24/16 13:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.58		0.200	0.200	SU	-		02/19/16 19:51	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-6

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

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

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC 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.
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)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 38 - WO 008

TestAmerica Job ID: 500-107641-6

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 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 #: 500-107641

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter												Preservative Key			
EE		1009341.000E.01																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		Lab Project #																			
IL 38		50011E6Y																			
Project Location/State		Lab PM																			
Kane County IL		D. Wright																			
Sample:																					
S-Cooper																					
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	UUC	SUOC	Total Trace Metals	TC-915AP	Trace Metals	pH/90 Solids								Comments	
			Date	Time																	
19		3011-21-1301(0-1)	2/16/16	1125	2	S	X	X	X	X	X	X									

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>[Signature]</u> Company: <u>EE</u> Date: <u>2/16/16</u> Time: <u>1530</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/16/16</u> Time: <u>1530</u>	Lab Courier: <u>TA</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>2/16/16</u> Time: <u>1715</u>	Received By: <u>[Signature]</u> Company: <u>TA-CPT</u> Date: <u>2/17/16</u> Time: <u>0745</u>	Shipped: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	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: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-107641-6

Login Number: 107641

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.8,2.5,3.2,3.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

