



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 3512 (US Route 14) Office Phone Number, if available: _____

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

400 - 800 Blocks of Northwest Highway (ISGS #2028V-1)

City: Des Plaines State: IL Zip Code: 60016

County: Cook Township: Maine

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

Latitude: 42.051076° Longitude: -87.909210°

(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 3512 (US Route 14)Latitude: 42.051076° Longitude: -87.909210°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 2028V-01-B01, -B04, -B06, -B07 were sampled within the construction zone adjacent to ISGS #2028V-1 (Union Pacific Railroad). Refer to PSI Report for ISGS #2028V-1 (Union Pacific Railroad) including Table 4-3, and Figure 4-1.

- 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 J109975-1.

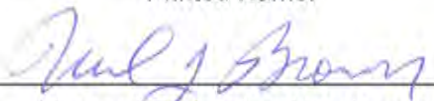
IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

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:

9/8/2016
 Date:



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

Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-439-09; WorkOrder #12

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-91-439-09; WorkOrder #12
CONTAMINANTS OF CONCERN

SITE	ISGS #2028V-1 (Union Pacific Railroad)					Comparison Criteria				
	2028V-01-B01	2028V-01-B04		2028V-01-B06	2028V-01-B07	MACs			TACO	
BORING	2028V-01-B01 (0-5)	2028V-01-B04 (0-8)	2028V-01-B04 (8-15)	2028V-01-B06 (0-5)	2028V-01-B07 (0-5)	Most Stringent	Within an MSA	Within Chicago	Residential	SCGIER
SAMPLE	Soil	Soil	Soil	Soil	Soil					
MATRIX	Soil	Soil	Soil	Soil	Soil					
DEPTH (feet)	0-5	0-8	8-15	0-5	0-5					
pH	8.51	8.18	7.67	8.46	8.18					
VOCs (mg/kg)										
2-Butanone (MEK)	ND U	ND U	0.0061	ND U	ND U	--	--	--	--	--
Acetone	ND U	ND U	0.04	0.017	ND U	25	--	--	70,000	--
Carbon tetrachloride	ND U	ND U	ND U	0.0028 J	ND U	0.07	--	--	0.3	--
SVOCs (mg/kg)										
2-Methylnaphthalene	ND U	0.0079 J	ND U	ND U	0.0088 J	--	--	--	--	--
Acenaphthene	ND U	0.0084 J	ND U	ND U	ND U	570	--	--	4,700	--
Acenaphthylene	0.011 J	ND U	ND U	ND U	ND U	--	--	--	--	--
Anthracene	0.022 J	0.017 J	0.015 J	0.0081 J	0.011 J	12,000	--	--	23,000	--
Benzo[a]anthracene	0.094	0.11	0.042	0.043	0.052	0.9	1.8	1.1	1.8	--
Benzo[a]pyrene	0.093 †	0.12 †	0.036 J	0.054	0.069	0.09	2.1	1.3	2.1	--
Benzo[b]fluoranthene	0.16	0.2	0.069	0.078	0.12	0.9	2.1	1.5	2.1	--
Benzo[g,h,i]perylene	0.035 J	0.057	0.018 J	0.024 J	0.03 J	--	--	--	--	--
Benzo[k]fluoranthene	0.068	0.067	0.029 J	0.041	0.041	9	--	--	9	--
Chrysene	0.11	0.14	0.048	0.061	0.069	88	--	--	88	--
Dibenzo[a,h]anthracene	ND U	ND U	ND U	ND U	ND U	0.09	0.42	0.2	0.42	--
Fluoranthene	0.21	0.26	0.092	0.098	0.13	3,100	--	--	3,100	--
Fluorene	ND U	0.0093 J	ND U	ND U	ND U	560	--	--	3,100	--
Indeno[1,2,3-cd]pyrene	0.044	ND U	ND U	ND U	ND U	0.9	1.6	0.9	1.6	--
Naphthalene	ND U	ND U	ND U	ND U	ND U	1.8	--	--	170	--
Phenanthrene	0.11	0.14	0.05	0.049	0.064	--	--	--	--	--
Pyrene	0.17	0.22	0.077	0.094	0.12	2,300	--	--	2,300	--
Inorganics (mg/kg)										
Antimony	0.87 J	0.85 J	0.49 J	0.55 J	0.34 J	5	--	--	31	--
Arsenic	9.2	5.1	6.9	5.4	5.9	11.3	13	--	13	--
Barium	62	71	79	60	62	1,500	--	--	5,500	--
Beryllium	0.59	0.65	0.68	0.57	0.64	22	--	--	160	--
Boron	12	16	11	18	14	40	--	--	16,000	--
Cadmium	0.17	0.27	0.14	ND U	ND U	5.2	--	--	78	--
Calcium	62,000	32,000	5,200	62,000	51,000	--	--	--	--	--
Chromium	15	18	17	18	17	21	--	--	230	--
Cobalt	9.5	12	9.1	11	11	20	--	--	4,700	--
Copper	25	22	21	21	19	2,900	--	--	2,900	--
Iron	19,000 †m	18,000 †m	17,000 †m	19,000 †m	18,000 †m	15,000	15,900	--	--	--
Lead	21	85	41	18	19	107	--	--	400	--
Magnesium	26,000	18,000	4,600	24,000	21,000	325,000	--	--	--	--
Manganese	300	390	170	360	320	630	636	--	1,600	--
Mercury	0.032	0.026	0.069	0.027	0.024	0.89	--	--	10	--
Nickel	26	31	23	31	30	100	--	--	1,600	--
Potassium	1,900	2,200	1,500	2,400	2,200	--	--	--	--	--
Selenium	0.54 J	0.5 J	0.35 J	0.47 J	0.43 J	1.3	--	--	390	--
Sodium	950	1,900	1,300	990	1,000	--	--	--	--	--
Thallium	ND U	ND U	ND U	ND U	ND U	2.6	--	--	6.3	--
Vanadium	20	21	23	21	22	550	--	--	550	--
Zinc	75	77	87	61	58	5,100	--	--	23,000	--
TCLP Metals (mg/L)										
Antimony	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.006
Barium	0.52	0.53	0.55	0.64	0.27 J	--	--	--	--	2
Beryllium	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.004
Boron	0.096 J	0.18 J	0.25 J	0.35 J	0.21 J	--	--	--	--	2
Cadmium	0.0031 J	0.0038 J	0.0029 J	0.0027 J	0.0027 J	--	--	--	--	0.005
Chromium	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.1
Cobalt	ND U	0.014 J	0.041	0.01 J	ND U	--	--	--	--	1
Iron	0.27 J	ND U	0.67	0.22 J	0.34 J	--	--	--	--	5
Lead	ND U	0.014 L	0.014 L	ND U	ND U	--	--	--	--	0.0075
Manganese	0.52 L	3.1 L	8.3 L	3 L	0.83 L	--	--	--	--	0.15
Nickel	ND U	0.015 J	0.036	ND U	ND U	--	--	--	--	0.1
Thallium	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.002
Zinc	ND U	0.024 J	0.063 J	ND U	ND U	--	--	--	--	5
SPLP Metals (mg/L)										
Antimony	0.014 L	0.012 L	ND U	ND U	ND U	--	--	--	--	0.006
Barium	0.58	0.65	0.43 J	0.15 J	0.48 J	--	--	--	--	2
Beryllium	0.0071 L	0.0075 L	0.0051 L	ND U	0.005 L	--	--	--	--	0.004
Boron	0.29	0.35	0.36	1.2	1.3	--	--	--	--	2
Cadmium	0.0024 J	0.0026 J	ND U	ND U	ND U	--	--	--	--	0.005
Chromium	0.17 L	0.18 L	0.12 L	0.025	0.11 L	--	--	--	--	0.1
Cobalt	0.047	0.065	0.042	ND U	0.039	--	--	--	--	1
Iron	150 L	170 L	110 L	15 L	95 L	--	--	--	--	5
Lead	0.22 L	0.24 L	0.082 L	0.019 L	0.1 L	--	--	--	--	0.0075
Manganese	0.83 L	1.4 L	0.9 L	0.097	0.89 L	--	--	--	--	0.15
Nickel	0.16 L	0.2 L	0.12 L	0.02 J	0.11 L	--	--	--	--	0.1
Thallium	0.0029 L	0.0028 L	ND U	ND U	ND U	--	--	--	--	0.002
Zinc	0.56	0.51	0.25 J	0.1 J	0.3 J	--	--	--	--	5

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: 500-109975-1
Client Project/Site: IDOT - Des Plaines - WO 012

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

Attn: Mr. Dean Tiebout



Authorized for release by:
4/19/2016 11:54:22 AM

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

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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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Job ID: 500-109975-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-109975-1

Comments

No additional comments.

Receipt

The samples were received on 4/8/2016 4:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.6° C and 3.1° C.

GC/MS VOA

Method(s) 8260B: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for 330694 recovered outside control limits for the following analyte: Vinyl Acetate. This analyte was biased high in the LCS/LCSD 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

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

Metals

Method(s) 6010B: The method blank for preparation batch 500-330749 and analytical batch 500-330951 contained Lead 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 internal standard (Tb) was used to report the elements Lead and Thallium in batch 500-331123. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

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Client Sample ID: 2028V-01-B01 (0-5)

Lab Sample ID: 500-109975-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acenaphthylene	0.011	J	0.039	0.0052	mg/Kg	1	☼	8270D	Total/NA	
Phenanthrene	0.11		0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA	
Anthracene	0.022	J	0.039	0.0066	mg/Kg	1	☼	8270D	Total/NA	
Fluoranthene	0.21		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA	
Pyrene	0.17		0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA	
Benzo[a]anthracene	0.094		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	0.16		0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA	
Benzo[k]fluoranthene	0.068		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA	
Benzo[a]pyrene	0.093		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA	
Indeno[1,2,3-cd]pyrene	0.044		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA	
Benzo[g,h,i]perylene	0.035	J	0.039	0.013	mg/Kg	1	☼	8270D	Total/NA	
Antimony	0.87	J	1.2	0.24	mg/Kg	1	☼	6010B	Total/NA	
Arsenic	9.2		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA	
Barium	62	B	0.58	0.11	mg/Kg	1	☼	6010B	Total/NA	
Beryllium	0.59		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA	
Boron	12		2.9	0.40	mg/Kg	1	☼	6010B	Total/NA	
Cadmium	0.17		0.12	0.033	mg/Kg	1	☼	6010B	Total/NA	
Calcium	62000		120	37	mg/Kg	10	☼	6010B	Total/NA	
Chromium	15	B	0.58	0.099	mg/Kg	1	☼	6010B	Total/NA	
Cobalt	9.5		0.29	0.065	mg/Kg	1	☼	6010B	Total/NA	
Copper	25		0.58	0.13	mg/Kg	1	☼	6010B	Total/NA	
Iron	19000	B	12	4.4	mg/Kg	1	☼	6010B	Total/NA	
Lead	21		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA	
Magnesium	26000	B	5.8	2.3	mg/Kg	1	☼	6010B	Total/NA	
Manganese	300		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA	
Nickel	26		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA	
Potassium	1900		29	4.7	mg/Kg	1	☼	6010B	Total/NA	
Selenium	0.54	J	0.58	0.29	mg/Kg	1	☼	6010B	Total/NA	
Sodium	950		58	7.6	mg/Kg	1	☼	6010B	Total/NA	
Vanadium	20		0.29	0.084	mg/Kg	1	☼	6010B	Total/NA	
Zinc	75		1.2	0.36	mg/Kg	1	☼	6010B	Total/NA	
Barium	0.52		0.50	0.050	mg/L	1		6010B	TCLP	
Boron	0.096	J	0.50	0.050	mg/L	1		6010B	TCLP	
Cadmium	0.0031	J	0.0050	0.0020	mg/L	1		6010B	TCLP	
Iron	0.27	J	0.40	0.20	mg/L	1		6010B	TCLP	
Manganese	0.52		0.025	0.010	mg/L	1		6010B	TCLP	
Barium	0.58		0.50	0.050	mg/L	1		6010B	SPLP East	

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B01 (0-5) (Continued)

Lab Sample ID: 500-109975-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.0071		0.0040	0.0040	mg/L	1		6010B	SPLP East
Boron	0.29		0.10	0.050	mg/L	1		6010B	SPLP East
Cadmium	0.0024	J	0.0050	0.0020	mg/L	1		6010B	SPLP East
Chromium	0.17		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.047		0.025	0.010	mg/L	1		6010B	SPLP East
Iron	150		0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.22		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.83		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.16		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.56		0.50	0.020	mg/L	1		6010B	SPLP East
Antimony	0.014		0.0060	0.0060	mg/L	1		6020A	SPLP East
Thallium	0.0029		0.0020	0.0020	mg/L	1		6020A	SPLP East
Mercury	0.032		0.018	0.0095	mg/Kg	1	☼	7471B	Total/NA
pH	8.51		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 2028V-01-B04 (0-8)

Lab Sample ID: 500-109975-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.0079	J	0.039	0.0071	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.0084	J	0.039	0.0070	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0093	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.14		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	0.26		0.039	0.0072	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.22		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	0.20		0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.067		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.12		0.039	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.057		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.85	J	1.1	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.1		0.55	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	71	B	0.55	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.65		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	16		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.27		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	32000	B	11	3.5	mg/Kg	1	☼	6010B	Total/NA
Chromium	18	B	0.55	0.094	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.27	0.062	mg/Kg	1	☼	6010B	Total/NA
Copper	22		0.55	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	18000	B	11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	85	B	0.27	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	18000	B	5.5	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	390		0.55	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	31		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	2200		27	4.5	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.50	J	0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	1900		55	7.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.27	0.080	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B04 (0-8) (Continued)

Lab Sample ID: 500-109975-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	77		1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.53		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.18	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0038	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.014	J	0.025	0.010	mg/L	1		6010B	TCLP
Lead	0.014		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	3.1		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.024	J	0.50	0.020	mg/L	1		6010B	TCLP
Barium	0.65		0.50	0.050	mg/L	1		6010B	SPLP East
Beryllium	0.0075		0.0040	0.0040	mg/L	1		6010B	SPLP East
Boron	0.35		0.10	0.050	mg/L	1		6010B	SPLP East
Cadmium	0.0026	J	0.0050	0.0020	mg/L	1		6010B	SPLP East
Chromium	0.18		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.065		0.025	0.010	mg/L	1		6010B	SPLP East
Iron	170		0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.24		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	1.4		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.20		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.51		0.50	0.020	mg/L	1		6010B	SPLP East
Antimony	0.012		0.0060	0.0060	mg/L	1		6020A	SPLP East
Thallium	0.0028		0.0020	0.0020	mg/L	1		6020A	SPLP East
Mercury	0.026		0.017	0.0091	mg/Kg	1	☼	7471B	Total/NA
pH	8.18		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 2028V-01-B04 (8-15)

Lab Sample ID: 500-109975-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.040		0.018	0.0034	mg/Kg	1	☼	8260B	Total/NA
2-Butanone (MEK)	0.0061		0.0044	0.0016	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.050		0.042	0.0059	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.015	J	0.042	0.0071	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.092		0.042	0.0079	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.077		0.042	0.0085	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.042		0.042	0.0057	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.048		0.042	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.069		0.042	0.0092	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.029	J	0.042	0.013	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.036	J	0.042	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.018	J	0.042	0.014	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.49	J	1.2	0.26	mg/Kg	1	☼	6010B	Total/NA
Arsenic	6.9		0.62	0.29	mg/Kg	1	☼	6010B	Total/NA
Barium	79	B	0.62	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.68		0.25	0.054	mg/Kg	1	☼	6010B	Total/NA
Boron	11		3.1	0.43	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14		0.12	0.036	mg/Kg	1	☼	6010B	Total/NA
Calcium	5200	B	12	4.0	mg/Kg	1	☼	6010B	Total/NA
Chromium	17	B	0.62	0.11	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.1		0.31	0.070	mg/Kg	1	☼	6010B	Total/NA
Copper	21		0.62	0.13	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B04 (8-15) (Continued)

Lab Sample ID: 500-109975-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Iron	17000	B	12	4.8	mg/Kg	1		☼	6010B	Total/NA
Lead	41		0.32	0.16	mg/Kg	1		☼	6010B	Total/NA
Magnesium	4600	B	6.2	2.5	mg/Kg	1		☼	6010B	Total/NA
Manganese	170		0.62	0.12	mg/Kg	1		☼	6010B	Total/NA
Nickel	23		0.62	0.17	mg/Kg	1		☼	6010B	Total/NA
Potassium	1500		31	5.1	mg/Kg	1		☼	6010B	Total/NA
Selenium	0.35	J	0.62	0.31	mg/Kg	1		☼	6010B	Total/NA
Sodium	1300		62	8.2	mg/Kg	1		☼	6010B	Total/NA
Vanadium	23		0.31	0.090	mg/Kg	1		☼	6010B	Total/NA
Zinc	87		1.2	0.39	mg/Kg	1		☼	6010B	Total/NA
Barium	0.55		0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.25	J	0.50	0.050	mg/L	1			6010B	TCLP
Cadmium	0.0029	J	0.0050	0.0020	mg/L	1			6010B	TCLP
Cobalt	0.041		0.025	0.010	mg/L	1			6010B	TCLP
Iron	0.67		0.40	0.20	mg/L	1			6010B	TCLP
Lead	0.014		0.0075	0.0075	mg/L	1			6010B	TCLP
Manganese	8.3		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.036		0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.063	J	0.50	0.020	mg/L	1			6010B	TCLP
Barium	0.43	J	0.50	0.050	mg/L	1			6010B	SPLP East
Beryllium	0.0051		0.0040	0.0040	mg/L	1			6010B	SPLP East
Boron	0.36		0.10	0.050	mg/L	1			6010B	SPLP East
Chromium	0.12		0.025	0.010	mg/L	1			6010B	SPLP East
Cobalt	0.042		0.025	0.010	mg/L	1			6010B	SPLP East
Iron	110		0.40	0.20	mg/L	1			6010B	SPLP East
Lead	0.082		0.0075	0.0075	mg/L	1			6010B	SPLP East
Manganese	0.90		0.025	0.010	mg/L	1			6010B	SPLP East
Nickel	0.12		0.025	0.010	mg/L	1			6010B	SPLP East
Zinc	0.25	J	0.50	0.020	mg/L	1			6010B	SPLP East
Mercury	0.069		0.020	0.010	mg/Kg	1		☼	7471B	Total/NA
pH	7.67		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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

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Client Sample ID: 2028V-01-B06 (0-5)

Lab Sample ID: 500-109975-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	0.017		0.016	0.0030	mg/Kg	1	*		8260B	Total/NA
Carbon tetrachloride	0.0028	J	0.0039	0.00084	mg/Kg	1	*		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B06 (0-5) (Continued)

Lab Sample ID: 500-109975-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.049		0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0081	J	0.039	0.0065	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.098		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.094		0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.043		0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.061		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.078		0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.041		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.054		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.024	J	0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.55	J	1.1	0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.4		0.57	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	60	B	0.57	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.57		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	18		2.9	0.40	mg/Kg	1	☼	6010B	Total/NA
Calcium	62000		110	37	mg/Kg	10	☼	6010B	Total/NA
Chromium	18	B	0.57	0.098	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.29	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	21		0.57	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	19000	B	11	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	18		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	24000	B	5.7	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	360		0.57	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	31		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2400		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.47	J	0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Sodium	990		57	7.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.29	0.084	mg/Kg	1	☼	6010B	Total/NA
Zinc	61		1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.64		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.35	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0027	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.010	J	0.025	0.010	mg/L	1		6010B	TCLP
Iron	0.22	J	0.40	0.20	mg/L	1		6010B	TCLP
Manganese	3.0		0.025	0.010	mg/L	1		6010B	TCLP
Barium	0.15	J	0.50	0.050	mg/L	1		6010B	SPLP East
Boron	1.2		0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.025		0.025	0.010	mg/L	1		6010B	SPLP East
Iron	15		0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.019		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.097		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.020	J	0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.10	J	0.50	0.020	mg/L	1		6010B	SPLP East
Mercury	0.027		0.018	0.0096	mg/Kg	1	☼	7471B	Total/NA
pH	8.46		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 2028V-01-B07 (0-5)

Lab Sample ID: 500-109975-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.0088	J	0.039	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B07 (0-5) (Continued)

Lab Sample ID: 500-109975-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.064		0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.011	J	0.039	0.0065	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.13		0.039	0.0072	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.12		0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.052		0.039	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.069		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.12		0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.041		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.069		0.039	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.030	J	0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.34	J	1.1	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.9		0.55	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	62	B	0.55	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.64		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	14		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Calcium	51000		110	36	mg/Kg	10	☼	6010B	Total/NA
Chromium	17	B	0.55	0.095	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.28	0.062	mg/Kg	1	☼	6010B	Total/NA
Copper	19		0.55	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	18000	B	11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	19		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	21000	B	5.5	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	320		0.55	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	30		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	2200		28	4.5	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.43	J	0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	1000		55	7.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	22		0.28	0.081	mg/Kg	1	☼	6010B	Total/NA
Zinc	58		1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.27	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.21	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0027	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Iron	0.34	J	0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.83		0.025	0.010	mg/L	1		6010B	TCLP
Barium	0.48	J	0.50	0.050	mg/L	1		6010B	SPLP East
Beryllium	0.0050		0.0040	0.0040	mg/L	1		6010B	SPLP East
Boron	1.3		0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.11		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.039		0.025	0.010	mg/L	1		6010B	SPLP East
Iron	95		0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.10		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.89		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.11		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.30	J	0.50	0.020	mg/L	1		6010B	SPLP East
Mercury	0.024		0.018	0.0097	mg/Kg	1	☼	7471B	Total/NA
pH	8.18		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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-109975-3	2028V-01-B01 (0-5)	Solid	04/08/16 10:45	04/08/16 16:30
500-109975-4	2028V-01-B04 (0-8)	Solid	04/08/16 11:55	04/08/16 16:30
500-109975-5	2028V-01-B04 (8-15)	Solid	04/08/16 12:00	04/08/16 16:30
500-109975-7	2028V-01-B06 (0-5)	Solid	04/08/16 12:55	04/08/16 16:30
500-109975-8	2028V-01-B07 (0-5)	Solid	04/08/16 13:10	04/08/16 16:30



Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B01 (0-5)

Lab Sample ID: 500-109975-3

Date Collected: 04/08/16 10:45

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 83.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0030	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Benzene	<0.0039		0.0039	0.00087	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Bromodichloromethane	<0.0039		0.0039	0.00066	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Bromoform	<0.0039		0.0039	0.00080	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Bromomethane	<0.0039		0.0039	0.0014	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
2-Butanone (MEK)	<0.0039		0.0039	0.0014	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Carbon disulfide	<0.0039		0.0039	0.0014	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Carbon tetrachloride	<0.0039		0.0039	0.00084	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Chlorobenzene	<0.0039		0.0039	0.00092	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Chloroethane	<0.0039		0.0039	0.0016	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Chloroform	<0.0039		0.0039	0.00076	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Chloromethane	<0.0039		0.0039	0.00094	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
cis-1,2-Dichloroethene	<0.0039		0.0039	0.00080	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
cis-1,3-Dichloropropene	<0.0039		0.0039	0.00089	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Dibromochloromethane	<0.0039		0.0039	0.00045	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
1,1-Dichloroethane	<0.0039		0.0039	0.00081	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
1,2-Dichloroethane	<0.0039		0.0039	0.00058	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
1,1-Dichloroethene	<0.0039		0.0039	0.0014	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
1,2-Dichloropropane	<0.0039		0.0039	0.0010	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
1,3-Dichloropropene, Total	<0.0039		0.0039	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Ethylbenzene	<0.0039		0.0039	0.00097	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Methylene Chloride	<0.0039		0.0039	0.0030	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.00081	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Methyl tert-butyl ether	<0.0039		0.0039	0.00092	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Styrene	<0.0039		0.0039	0.00091	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
1,1,2,2-Tetrachloroethane	<0.0039		0.0039	0.00062	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Tetrachloroethene	<0.0039		0.0039	0.00081	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Toluene	<0.0039		0.0039	0.0014	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
trans-1,2-Dichloroethene	<0.0039		0.0039	0.00098	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
trans-1,3-Dichloropropene	<0.0039		0.0039	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
1,1,1-Trichloroethane	<0.0039		0.0039	0.00091	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
1,1,2-Trichloroethane	<0.0039		0.0039	0.00076	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Trichloroethene	<0.0039		0.0039	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Vinyl acetate	<0.0039 *		0.0039	0.0010	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Vinyl chloride	<0.0039		0.0039	0.00093	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1
Xylenes, Total	<0.0078		0.0078	0.0014	mg/Kg	☼	04/08/16 16:55	04/12/16 14:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 120	04/08/16 16:55	04/12/16 14:47	1
Dibromofluoromethane	111		75 - 120	04/08/16 16:55	04/12/16 14:47	1
1,2-Dichloroethane-d4 (Surr)	114		69 - 134	04/08/16 16:55	04/12/16 14:47	1
Toluene-d8 (Surr)	114		75 - 123	04/08/16 16:55	04/12/16 14:47	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	☼	04/15/16 16:58	04/18/16 13:36	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B01 (0-5)

Lab Sample ID: 500-109975-3

Date Collected: 04/08/16 10:45

Matrix: Solid

Date Received: 04/08/16 16:30

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	☼	04/15/16 16:58	04/18/16 13:36	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
4-Chloroaniline	<0.79		0.79	0.19	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Acenaphthylene	0.011	J	0.039	0.0052	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Phenanthrene	0.11		0.039	0.0055	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Anthracene	0.022	J	0.039	0.0066	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Fluoranthene	0.21		0.039	0.0073	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Pyrene	0.17		0.039	0.0078	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Benzo[a]anthracene	0.094		0.039	0.0053	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B01 (0-5)

Lab Sample ID: 500-109975-3

Date Collected: 04/08/16 10:45

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 83.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.11		0.039	0.011	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Benzo[b]fluoranthene	0.16		0.039	0.0085	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Benzo[k]fluoranthene	0.068		0.039	0.012	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Benzo[a]pyrene	0.093		0.039	0.0076	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Indeno[1,2,3-cd]pyrene	0.044		0.039	0.010	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
Benzo[g,h,i]perylene	0.035	J	0.039	0.013	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	04/15/16 16:58	04/18/16 13:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	66		40 - 130	04/15/16 16:58	04/18/16 13:36	1
Phenol-d5	73		36 - 123	04/15/16 16:58	04/18/16 13:36	1
Nitrobenzene-d5	59		33 - 124	04/15/16 16:58	04/18/16 13:36	1
2-Fluorobiphenyl	79		42 - 115	04/15/16 16:58	04/18/16 13:36	1
2,4,6-Tribromophenol	76		25 - 130	04/15/16 16:58	04/18/16 13:36	1
Terphenyl-d14	82		25 - 150	04/15/16 16:58	04/18/16 13:36	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.87	J	1.2	0.24	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1
Arsenic	9.2		0.58	0.27	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1
Barium	62	B	0.58	0.11	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1
Beryllium	0.59		0.23	0.050	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1
Boron	12		2.9	0.40	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1
Cadmium	0.17		0.12	0.033	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1
Calcium	62000		120	37	mg/Kg	☼	04/12/16 15:41	04/13/16 12:55	10
Chromium	15	B	0.58	0.099	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1
Cobalt	9.5		0.29	0.065	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1
Copper	25		0.58	0.13	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1
Iron	19000	B	12	4.4	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1
Lead	21		0.28	0.14	mg/Kg	☼	04/13/16 16:04	04/14/16 14:15	1
Magnesium	26000	B	5.8	2.3	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1
Manganese	300		0.58	0.11	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1
Nickel	26		0.58	0.16	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1
Potassium	1900		29	4.7	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1
Selenium	0.54	J	0.58	0.29	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1
Silver	<0.29		0.29	0.067	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1
Sodium	950		58	7.6	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1
Thallium	<0.58		0.58	0.28	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1
Vanadium	20		0.29	0.084	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1
Zinc	75		1.2	0.36	mg/Kg	☼	04/12/16 15:41	04/13/16 11:18	1

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		04/13/16 15:02	04/14/16 14:36	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/13/16 15:02	04/14/16 14:36	1
Boron	0.096	J	0.50	0.050	mg/L		04/13/16 15:02	04/14/16 14:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B01 (0-5)

Lab Sample ID: 500-109975-3

Date Collected: 04/08/16 10:45

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 83.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0031	J	0.0050	0.0020	mg/L		04/13/16 15:02	04/14/16 14:36	1
Chromium	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:36	1
Cobalt	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:36	1
Iron	0.27	J	0.40	0.20	mg/L		04/13/16 15:02	04/14/16 14:36	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/13/16 15:02	04/14/16 14:36	1
Manganese	0.52		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:36	1
Nickel	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:36	1
Selenium	<0.050		0.050	0.020	mg/L		04/13/16 15:02	04/14/16 14:36	1
Silver	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:36	1
Zinc	<0.50		0.50	0.020	mg/L		04/13/16 15:02	04/14/16 14:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.58		0.50	0.050	mg/L		04/13/16 15:00	04/14/16 14:34	1
Beryllium	0.0071		0.0040	0.0040	mg/L		04/13/16 15:00	04/14/16 14:34	1
Boron	0.29		0.10	0.050	mg/L		04/13/16 15:00	04/14/16 14:34	1
Cadmium	0.0024	J	0.0050	0.0020	mg/L		04/13/16 15:00	04/14/16 14:34	1
Chromium	0.17		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 14:34	1
Cobalt	0.047		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 14:34	1
Iron	150		0.40	0.20	mg/L		04/13/16 15:00	04/14/16 14:34	1
Lead	0.22		0.0075	0.0075	mg/L		04/13/16 15:00	04/14/16 14:34	1
Manganese	0.83		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 14:34	1
Nickel	0.16		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 14:34	1
Selenium	<0.050		0.050	0.020	mg/L		04/13/16 15:00	04/14/16 14:34	1
Silver	<0.025		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 14:34	1
Zinc	0.56		0.50	0.020	mg/L		04/13/16 15:00	04/14/16 14:34	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		04/13/16 15:02	04/14/16 12:53	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/13/16 15:02	04/14/16 12:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.014		0.0060	0.0060	mg/L		04/13/16 15:00	04/14/16 13:55	1
Thallium	0.0029		0.0020	0.0020	mg/L		04/13/16 15:00	04/14/16 13:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/13/16 12:30	04/14/16 11:09	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		04/13/16 12:30	04/14/16 11:46	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032		0.018	0.0095	mg/Kg	☼	04/12/16 15:15	04/13/16 09:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B01 (0-5)

Lab Sample ID: 500-109975-3

Date Collected: 04/08/16 10:45

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 83.2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.51		0.200	0.200	SU			04/14/16 11:58	1

1

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B04 (0-8)

Lab Sample ID: 500-109975-4

Date Collected: 04/08/16 11:55

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 83.8

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	☼	04/08/16 16:55	04/12/16 15:11	1
Benzene	<0.0039		0.0039	0.00088	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Bromodichloromethane	<0.0039		0.0039	0.00067	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Bromoform	<0.0039		0.0039	0.00080	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
2-Butanone (MEK)	<0.0039		0.0039	0.0014	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Carbon disulfide	<0.0039		0.0039	0.0015	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Carbon tetrachloride	<0.0039		0.0039	0.00084	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Chlorobenzene	<0.0039		0.0039	0.00093	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Chloroethane	<0.0039		0.0039	0.0017	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Chloroform	<0.0039		0.0039	0.00077	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Chloromethane	<0.0039		0.0039	0.00095	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
cis-1,2-Dichloroethene	<0.0039		0.0039	0.00080	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
cis-1,3-Dichloropropene	<0.0039		0.0039	0.00090	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Dibromochloromethane	<0.0039		0.0039	0.00045	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
1,1-Dichloroethane	<0.0039		0.0039	0.00081	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
1,2-Dichloroethane	<0.0039		0.0039	0.00058	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
1,1-Dichloroethene	<0.0039		0.0039	0.0014	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
1,2-Dichloropropane	<0.0039		0.0039	0.0010	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
1,3-Dichloropropene, Total	<0.0039		0.0039	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Ethylbenzene	<0.0039		0.0039	0.00098	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Methylene Chloride	<0.0039		0.0039	0.0030	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.00081	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Methyl tert-butyl ether	<0.0039		0.0039	0.00093	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Styrene	<0.0039		0.0039	0.00092	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
1,1,2,2-Tetrachloroethane	<0.0039		0.0039	0.00063	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Tetrachloroethene	<0.0039		0.0039	0.00082	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Toluene	<0.0039		0.0039	0.0014	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
trans-1,2-Dichloroethene	<0.0039		0.0039	0.00099	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
trans-1,3-Dichloropropene	<0.0039		0.0039	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
1,1,1-Trichloroethane	<0.0039		0.0039	0.00091	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
1,1,2-Trichloroethane	<0.0039		0.0039	0.00076	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Trichloroethene	<0.0039		0.0039	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Vinyl acetate	<0.0039 *		0.0039	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Vinyl chloride	<0.0039		0.0039	0.00094	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1
Xylenes, Total	<0.0079		0.0079	0.0015	mg/Kg	☼	04/08/16 16:55	04/12/16 15:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 120	04/08/16 16:55	04/12/16 15:11	1
Dibromofluoromethane	110		75 - 120	04/08/16 16:55	04/12/16 15:11	1
1,2-Dichloroethane-d4 (Surr)	113		69 - 134	04/08/16 16:55	04/12/16 15:11	1
Toluene-d8 (Surr)	115		75 - 123	04/08/16 16:55	04/12/16 15:11	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	☼	04/15/16 16:58	04/18/16 22:40	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B04 (0-8)

Lab Sample ID: 500-109975-4

Date Collected: 04/08/16 11:55

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 83.8

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	☼	04/15/16 16:58	04/18/16 22:40	1
2-Methylphenol	<0.20		0.20	0.062	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.048	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
2-Chlorophenol	<0.20		0.20	0.066	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
2,4-Dichlorophenol	<0.39		0.39	0.092	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
2-Methylnaphthalene	0.0079	J	0.039	0.0071	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
2,6-Dinitrotoluene	<0.20		0.20	0.076	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Acenaphthene	0.0084	J	0.039	0.0070	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Fluorene	0.0093	J	0.039	0.0055	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.045	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Phenanthrene	0.14		0.039	0.0054	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Anthracene	0.017	J	0.039	0.0065	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Fluoranthene	0.26		0.039	0.0072	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Pyrene	0.22		0.039	0.0077	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Benzo[a]anthracene	0.11		0.039	0.0052	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B04 (0-8)

Lab Sample ID: 500-109975-4

Date Collected: 04/08/16 11:55

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 83.8

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	☼	04/15/16 16:58	04/18/16 22:40	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.054	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Di-n-octyl phthalate	<0.20		0.20	0.063	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Benzo[b]fluoranthene	0.20		0.039	0.0084	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Benzo[k]fluoranthene	0.067		0.039	0.011	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Benzo[a]pyrene	0.12		0.039	0.0075	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
Benzo[g,h,i]perylene	0.057		0.039	0.013	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	04/15/16 16:58	04/18/16 22:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	72		40 - 130	04/15/16 16:58	04/18/16 22:40	1
Phenol-d5	78		36 - 123	04/15/16 16:58	04/18/16 22:40	1
Nitrobenzene-d5	70		33 - 124	04/15/16 16:58	04/18/16 22:40	1
2-Fluorobiphenyl	84		42 - 115	04/15/16 16:58	04/18/16 22:40	1
2,4,6-Tribromophenol	103		25 - 130	04/15/16 16:58	04/18/16 22:40	1
Terphenyl-d14	86		25 - 150	04/15/16 16:58	04/18/16 22:40	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.85	J	1.1	0.23	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Arsenic	5.1		0.55	0.25	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Barium	71	B	0.55	0.10	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Beryllium	0.65		0.22	0.048	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Boron	16		2.7	0.38	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Cadmium	0.27		0.11	0.032	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Calcium	32000	B	11	3.5	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Chromium	18	B	0.55	0.094	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Cobalt	12		0.27	0.062	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Copper	22		0.55	0.12	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Iron	18000	B	11	4.2	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Lead	85	B	0.27	0.14	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Magnesium	18000	B	5.5	2.2	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Manganese	390		0.55	0.11	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Nickel	31		0.55	0.15	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Potassium	2200		27	4.5	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Selenium	0.50	J	0.55	0.27	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Silver	<0.27		0.27	0.064	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Sodium	1900		55	7.2	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Vanadium	21		0.27	0.080	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	1
Zinc	77		1.1	0.35	mg/Kg	☼	04/12/16 15:41	04/13/16 11:24	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		04/13/16 15:02	04/14/16 14:41	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/13/16 15:02	04/14/16 14:41	1
Boron	0.18	J	0.50	0.050	mg/L		04/13/16 15:02	04/14/16 14:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B04 (0-8)

Lab Sample ID: 500-109975-4

Date Collected: 04/08/16 11:55

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0038	J	0.0050	0.0020	mg/L		04/13/16 15:02	04/14/16 14:41	1
Chromium	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:41	1
Cobalt	0.014	J	0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:41	1
Iron	<0.40		0.40	0.20	mg/L		04/13/16 15:02	04/14/16 14:41	1
Lead	0.014		0.0075	0.0075	mg/L		04/13/16 15:02	04/14/16 14:41	1
Manganese	3.1		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:41	1
Nickel	0.015	J	0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:41	1
Selenium	<0.050		0.050	0.020	mg/L		04/13/16 15:02	04/14/16 14:41	1
Silver	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:41	1
Zinc	0.024	J	0.50	0.020	mg/L		04/13/16 15:02	04/14/16 14:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.65		0.50	0.050	mg/L		04/13/16 15:00	04/14/16 14:41	1
Beryllium	0.0075		0.0040	0.0040	mg/L		04/13/16 15:00	04/14/16 14:41	1
Boron	0.35		0.10	0.050	mg/L		04/13/16 15:00	04/14/16 14:41	1
Cadmium	0.0026	J	0.0050	0.0020	mg/L		04/13/16 15:00	04/14/16 14:41	1
Chromium	0.18		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 14:41	1
Cobalt	0.065		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 14:41	1
Iron	170		0.40	0.20	mg/L		04/13/16 15:00	04/14/16 14:41	1
Lead	0.24		0.0075	0.0075	mg/L		04/13/16 15:00	04/14/16 14:41	1
Manganese	1.4		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 14:41	1
Nickel	0.20		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 14:41	1
Selenium	<0.050		0.050	0.020	mg/L		04/13/16 15:00	04/14/16 14:41	1
Silver	<0.025		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 14:41	1
Zinc	0.51		0.50	0.020	mg/L		04/13/16 15:00	04/14/16 14:41	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		04/13/16 15:02	04/14/16 12:57	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/13/16 15:02	04/14/16 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.012		0.0060	0.0060	mg/L		04/13/16 15:00	04/14/16 13:59	1
Thallium	0.0028		0.0020	0.0020	mg/L		04/13/16 15:00	04/14/16 13:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/13/16 12:30	04/14/16 11:11	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		04/13/16 12:30	04/14/16 11:48	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.017	0.0091	mg/Kg	☼	04/12/16 15:15	04/13/16 09:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B04 (0-8)

Lab Sample ID: 500-109975-4

Date Collected: 04/08/16 11:55

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 83.8

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.18		0.200	0.200	SU			04/14/16 12:03	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B04 (8-15)

Lab Sample ID: 500-109975-5

Date Collected: 04/08/16 12:00

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 76.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.040		0.018	0.0034	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Benzene	<0.0044		0.0044	0.00099	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Bromodichloromethane	<0.0044		0.0044	0.00075	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Bromoform	<0.0044		0.0044	0.00091	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Bromomethane	<0.0044		0.0044	0.0016	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
2-Butanone (MEK)	0.0061		0.0044	0.0016	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Carbon disulfide	<0.0044		0.0044	0.0016	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Carbon tetrachloride	<0.0044		0.0044	0.00095	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Chlorobenzene	<0.0044		0.0044	0.0010	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Chloroethane	<0.0044		0.0044	0.0019	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Chloroform	<0.0044		0.0044	0.00087	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Chloromethane	<0.0044		0.0044	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
cis-1,2-Dichloroethene	<0.0044		0.0044	0.00091	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
cis-1,3-Dichloropropene	<0.0044		0.0044	0.0010	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Dibromochloromethane	<0.0044		0.0044	0.00051	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
1,1-Dichloroethane	<0.0044		0.0044	0.00092	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
1,2-Dichloroethane	<0.0044		0.0044	0.00066	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
1,1,1-Dichloroethane	<0.0044		0.0044	0.0016	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
1,2-Dichloropropane	<0.0044		0.0044	0.0012	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
1,3-Dichloropropane, Total	<0.0044		0.0044	0.0013	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Ethylbenzene	<0.0044		0.0044	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Methylene Chloride	<0.0044		0.0044	0.0034	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.00092	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Methyl tert-butyl ether	<0.0044		0.0044	0.0010	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Styrene	<0.0044		0.0044	0.0010	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
1,1,1,2-Tetrachloroethane	<0.0044		0.0044	0.00071	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Tetrachloroethene	<0.0044		0.0044	0.00093	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Toluene	<0.0044		0.0044	0.0015	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
trans-1,2-Dichloroethene	<0.0044		0.0044	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
trans-1,3-Dichloropropene	<0.0044		0.0044	0.0013	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
1,1,1-Trichloroethane	<0.0044		0.0044	0.0010	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
1,1,2-Trichloroethane	<0.0044		0.0044	0.00086	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Trichloroethene	<0.0044		0.0044	0.0012	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Vinyl acetate	<0.0044 *		0.0044	0.0012	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Vinyl chloride	<0.0044		0.0044	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1
Xylenes, Total	<0.0089		0.0089	0.0016	mg/Kg	☼	04/08/16 16:55	04/12/16 15:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 120	04/08/16 16:55	04/12/16 15:36	1
Dibromofluoromethane	109		75 - 120	04/08/16 16:55	04/12/16 15:36	1
1,2-Dichloroethane-d4 (Surr)	112		69 - 134	04/08/16 16:55	04/12/16 15:36	1
Toluene-d8 (Surr)	114		75 - 123	04/08/16 16:55	04/12/16 15:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.095	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.064	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
1,3-Dichlorobenzene	<0.21		0.21	0.048	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
1,4-Dichlorobenzene	<0.21		0.21	0.055	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B04 (8-15)

Lab Sample ID: 500-109975-5

Date Collected: 04/08/16 12:00

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 76.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.051	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
2-Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.049	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
N-Nitrosodi-n-propylamine	<0.086		0.086	0.052	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Hexachloroethane	<0.21		0.21	0.065	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
2-Chlorophenol	<0.21		0.21	0.073	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Nitrobenzene	<0.042		0.042	0.011	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.044	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Isophorone	<0.21		0.21	0.048	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
2,4-Dimethylphenol	<0.42		0.42	0.16	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Hexachlorobutadiene	<0.21		0.21	0.067	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Naphthalene	<0.042		0.042	0.0066	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
2,4-Dichlorophenol	<0.42		0.42	0.10	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
4-Chloroaniline	<0.86		0.86	0.20	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
2,4,6-Trichlorophenol	<0.42		0.42	0.15	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
2,4,5-Trichlorophenol	<0.42		0.42	0.097	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Hexachlorocyclopentadiene	<0.86		0.86	0.25	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
2-Methylnaphthalene	<0.042		0.042	0.0078	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
2-Nitroaniline	<0.21		0.21	0.057	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
2-Chloronaphthalene	<0.21		0.21	0.047	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
4-Chloro-3-methylphenol	<0.42		0.42	0.15	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
2,6-Dinitrotoluene	<0.21		0.21	0.084	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
2-Nitrophenol	<0.42		0.42	0.10	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
3-Nitroaniline	<0.42		0.42	0.13	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Dimethyl phthalate	<0.21		0.21	0.056	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
2,4-Dinitrophenol	<0.86		0.86	0.75	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Acenaphthylene	<0.042		0.042	0.0056	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
2,4-Dinitrotoluene	<0.21		0.21	0.068	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Acenaphthene	<0.042		0.042	0.0077	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Dibenzofuran	<0.21		0.21	0.050	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
4-Nitrophenol	<0.86		0.86	0.41	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Fluorene	<0.042		0.042	0.0060	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
4-Nitroaniline	<0.42		0.42	0.18	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.056	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Hexachlorobenzene	<0.086		0.086	0.0099	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Diethyl phthalate	<0.21		0.21	0.072	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.050	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Pentachlorophenol	<0.86		0.86	0.68	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
N-Nitrosodiphenylamine	<0.21		0.21	0.050	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
4,6-Dinitro-2-methylphenol	<0.86		0.86	0.34	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Phenanthrene	0.050		0.042	0.0059	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Anthracene	0.015 J		0.042	0.0071	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Carbazole	<0.21		0.21	0.11	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Di-n-butyl phthalate	<0.21		0.21	0.065	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Fluoranthene	0.092		0.042	0.0079	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Pyrene	0.077		0.042	0.0085	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Butyl benzyl phthalate	<0.21		0.21	0.081	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Benzo[a]anthracene	0.042		0.042	0.0057	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B04 (8-15)

Lab Sample ID: 500-109975-5

Date Collected: 04/08/16 12:00

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 76.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.048		0.042	0.012	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.060	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.078	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Di-n-octyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Benzo[b]fluoranthene	0.069		0.042	0.0092	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Benzo[k]fluoranthene	0.029 J		0.042	0.013	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Benzo[a]pyrene	0.036 J		0.042	0.0083	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Indeno[1,2,3-cd]pyrene	<0.042		0.042	0.011	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Dibenz(a,h)anthracene	<0.042		0.042	0.0082	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
Benzo[g,h,i]perylene	0.018 J		0.042	0.014	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1
3 & 4 Methylphenol	<0.21		0.21	0.071	mg/Kg	☼	04/15/16 16:58	04/18/16 23:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	47		40 - 130	04/15/16 16:58	04/18/16 23:09	1
Phenol-d5	54		36 - 123	04/15/16 16:58	04/18/16 23:09	1
Nitrobenzene-d5	42		33 - 124	04/15/16 16:58	04/18/16 23:09	1
2-Fluorobiphenyl	51		42 - 115	04/15/16 16:58	04/18/16 23:09	1
2,4,6-Tribromophenol	73		25 - 130	04/15/16 16:58	04/18/16 23:09	1
Terphenyl-d14	74		25 - 150	04/15/16 16:58	04/18/16 23:09	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.49 J		1.2	0.26	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Arsenic	6.9		0.62	0.29	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Barium	79 B		0.62	0.11	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Beryllium	0.68		0.25	0.054	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Boron	11		3.1	0.43	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Cadmium	0.14		0.12	0.036	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Calcium	5200 B		12	4.0	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Chromium	17 B		0.62	0.11	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Cobalt	9.1		0.31	0.070	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Copper	21		0.62	0.13	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Iron	17000 B		12	4.8	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Lead	41		0.32	0.16	mg/Kg	☼	04/13/16 16:04	04/14/16 14:20	1
Magnesium	4600 B		6.2	2.5	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Manganese	170		0.62	0.12	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Nickel	23		0.62	0.17	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Potassium	1500		31	5.1	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Selenium	0.35 J		0.62	0.31	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Silver	<0.31		0.31	0.072	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Sodium	1300		62	8.2	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Thallium	<0.62		0.62	0.30	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Vanadium	23		0.31	0.090	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1
Zinc	87		1.2	0.39	mg/Kg	☼	04/12/16 15:41	04/13/16 11:40	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.55		0.50	0.050	mg/L		04/13/16 15:02	04/14/16 14:46	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/13/16 15:02	04/14/16 14:46	1
Boron	0.25 J		0.50	0.050	mg/L		04/13/16 15:02	04/14/16 14:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B04 (8-15)

Lab Sample ID: 500-109975-5

Date Collected: 04/08/16 12:00

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 76.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0029	J	0.0050	0.0020	mg/L		04/13/16 15:02	04/14/16 14:46	1
Chromium	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:46	1
Cobalt	0.041		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:46	1
Iron	0.67		0.40	0.20	mg/L		04/13/16 15:02	04/14/16 14:46	1
Lead	0.014		0.0075	0.0075	mg/L		04/13/16 15:02	04/14/16 14:46	1
Manganese	8.3		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:46	1
Nickel	0.036		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:46	1
Selenium	<0.050		0.050	0.020	mg/L		04/13/16 15:02	04/14/16 14:46	1
Silver	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:46	1
Zinc	0.063	J	0.50	0.020	mg/L		04/13/16 15:02	04/14/16 14:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.43	J	0.50	0.050	mg/L		04/13/16 15:00	04/14/16 14:47	1
Beryllium	0.0051		0.0040	0.0040	mg/L		04/13/16 15:00	04/14/16 14:47	1
Boron	0.36		0.10	0.050	mg/L		04/13/16 15:00	04/14/16 14:47	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/13/16 15:00	04/14/16 14:47	1
Chromium	0.12		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 14:47	1
Cobalt	0.042		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 14:47	1
Iron	110		0.40	0.20	mg/L		04/13/16 15:00	04/14/16 14:47	1
Lead	0.082		0.0075	0.0075	mg/L		04/13/16 15:00	04/14/16 14:47	1
Manganese	0.90		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 14:47	1
Nickel	0.12		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 14:47	1
Selenium	<0.050		0.050	0.020	mg/L		04/13/16 15:00	04/14/16 14:47	1
Silver	<0.025		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 14:47	1
Zinc	0.25	J	0.50	0.020	mg/L		04/13/16 15:00	04/14/16 14:47	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		04/13/16 15:02	04/14/16 13:00	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/13/16 15:02	04/14/16 13:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/13/16 15:00	04/14/16 14:40	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/13/16 15:00	04/14/16 14:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/13/16 12:30	04/14/16 11:13	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		04/13/16 12:30	04/14/16 11:50	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.069		0.020	0.010	mg/Kg	☼	04/12/16 15:15	04/13/16 09:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B04 (8-15)

Lab Sample ID: 500-109975-5

Date Collected: 04/08/16 12:00

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 76.4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.67		0.200	0.200	SU			04/14/16 12:09	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B06 (0-5)

Lab Sample ID: 500-109975-7

Date Collected: 04/08/16 12:55

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 82.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.017		0.016	0.0030	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Benzene	<0.0039		0.0039	0.00087	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Bromodichloromethane	<0.0039		0.0039	0.00066	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Bromoform	<0.0039		0.0039	0.00080	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Bromomethane	<0.0039		0.0039	0.0014	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
2-Butanone (MEK)	<0.0039		0.0039	0.0014	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Carbon disulfide	<0.0039		0.0039	0.0014	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Carbon tetrachloride	0.0028 J		0.0039	0.00084	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Chlorobenzene	<0.0039		0.0039	0.00092	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Chloroethane	<0.0039		0.0039	0.0016	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Chloroform	<0.0039		0.0039	0.00076	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Chloromethane	<0.0039		0.0039	0.00094	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
cis-1,2-Dichloroethene	<0.0039		0.0039	0.00080	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
cis-1,3-Dichloropropene	<0.0039		0.0039	0.00089	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Dibromochloromethane	<0.0039		0.0039	0.00045	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
1,1-Dichloroethane	<0.0039		0.0039	0.00080	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
1,2-Dichloroethane	<0.0039		0.0039	0.00058	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
1,1-Dichloroethene	<0.0039		0.0039	0.0014	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
1,2-Dichloropropane	<0.0039		0.0039	0.0010	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
1,3-Dichloropropane, Total	<0.0039		0.0039	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Ethylbenzene	<0.0039		0.0039	0.00097	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Methylene Chloride	<0.0039		0.0039	0.0030	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.00080	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Methyl tert-butyl ether	<0.0039		0.0039	0.00092	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Styrene	<0.0039		0.0039	0.00091	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
1,1,2,2-Tetrachloroethane	<0.0039		0.0039	0.00062	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Tetrachloroethene	<0.0039		0.0039	0.00081	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Toluene	<0.0039		0.0039	0.0014	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
trans-1,2-Dichloroethene	<0.0039		0.0039	0.00098	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
trans-1,3-Dichloropropene	<0.0039		0.0039	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
1,1,1-Trichloroethane	<0.0039		0.0039	0.00091	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
1,1,2-Trichloroethane	<0.0039		0.0039	0.00076	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Trichloroethene	<0.0039		0.0039	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Vinyl acetate	<0.0039 *		0.0039	0.0010	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Vinyl chloride	<0.0039		0.0039	0.00093	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1
Xylenes, Total	<0.0078		0.0078	0.0014	mg/Kg	☼	04/08/16 16:55	04/12/16 16:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 120	04/08/16 16:55	04/12/16 16:24	1
Dibromofluoromethane	111		75 - 120	04/08/16 16:55	04/12/16 16:24	1
1,2-Dichloroethane-d4 (Surr)	117		69 - 134	04/08/16 16:55	04/12/16 16:24	1
Toluene-d8 (Surr)	117		75 - 123	04/08/16 16:55	04/12/16 16:24	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	☼	04/15/16 16:58	04/19/16 00:05	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B06 (0-5)

Lab Sample ID: 500-109975-7

Date Collected: 04/08/16 12:55

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 82.5

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	☼	04/15/16 16:58	04/19/16 00:05	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Phenanthrene	0.049		0.039	0.0054	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Anthracene	0.0081 J		0.039	0.0065	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Fluoranthene	0.098		0.039	0.0073	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Pyrene	0.094		0.039	0.0078	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Benzo[a]anthracene	0.043		0.039	0.0053	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B06 (0-5)

Lab Sample ID: 500-109975-7

Date Collected: 04/08/16 12:55

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 82.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.061		0.039	0.011	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Benzo[b]fluoranthene	0.078		0.039	0.0084	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Benzo[k]fluoranthene	0.041		0.039	0.012	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Benzo[a]pyrene	0.054		0.039	0.0076	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
Benzo[g,h,i]perylene	0.024	J	0.039	0.013	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	04/15/16 16:58	04/19/16 00:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	61		40 - 130	04/15/16 16:58	04/19/16 00:05	1
Phenol-d5	63		36 - 123	04/15/16 16:58	04/19/16 00:05	1
Nitrobenzene-d5	63		33 - 124	04/15/16 16:58	04/19/16 00:05	1
2-Fluorobiphenyl	77		42 - 115	04/15/16 16:58	04/19/16 00:05	1
2,4,6-Tribromophenol	94		25 - 130	04/15/16 16:58	04/19/16 00:05	1
Terphenyl-d14	91		25 - 150	04/15/16 16:58	04/19/16 00:05	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.55	J	1.1	0.24	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1
Arsenic	5.4		0.57	0.26	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1
Barium	60	B	0.57	0.10	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1
Beryllium	0.57		0.23	0.050	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1
Boron	18		2.9	0.40	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1
Cadmium	<0.11		0.11	0.033	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1
Calcium	62000		110	37	mg/Kg	☼	04/12/16 15:41	04/13/16 13:04	10
Chromium	18	B	0.57	0.098	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1
Cobalt	11		0.29	0.065	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1
Copper	21		0.57	0.12	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1
Iron	19000	B	11	4.4	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1
Lead	18		0.30	0.15	mg/Kg	☼	04/13/16 16:04	04/14/16 14:30	1
Magnesium	24000	B	5.7	2.3	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1
Manganese	360		0.57	0.11	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1
Nickel	31		0.57	0.16	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1
Potassium	2400		29	4.7	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1
Selenium	0.47	J	0.57	0.28	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1
Silver	<0.29		0.29	0.067	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1
Sodium	990		57	7.6	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1
Vanadium	21		0.29	0.084	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1
Zinc	61		1.1	0.36	mg/Kg	☼	04/12/16 15:41	04/13/16 11:50	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.64		0.50	0.050	mg/L		04/13/16 15:02	04/14/16 14:57	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/13/16 15:02	04/14/16 14:57	1
Boron	0.35	J	0.50	0.050	mg/L		04/13/16 15:02	04/14/16 14:57	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B06 (0-5)

Lab Sample ID: 500-109975-7

Date Collected: 04/08/16 12:55

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 82.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0027	J	0.0050	0.0020	mg/L		04/13/16 15:02	04/14/16 14:57	1
Chromium	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:57	1
Cobalt	0.010	J	0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:57	1
Iron	0.22	J	0.40	0.20	mg/L		04/13/16 15:02	04/14/16 14:57	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/13/16 15:02	04/14/16 14:57	1
Manganese	3.0		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:57	1
Nickel	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:57	1
Selenium	<0.050		0.050	0.020	mg/L		04/13/16 15:02	04/14/16 14:57	1
Silver	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 14:57	1
Zinc	<0.50		0.50	0.020	mg/L		04/13/16 15:02	04/14/16 14:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.15	J	0.50	0.050	mg/L		04/13/16 15:00	04/14/16 15:01	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/13/16 15:00	04/14/16 15:01	1
Boron	1.2		0.10	0.050	mg/L		04/13/16 15:00	04/14/16 15:01	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/13/16 15:00	04/14/16 15:01	1
Chromium	0.025		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:01	1
Cobalt	<0.025		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:01	1
Iron	15		0.40	0.20	mg/L		04/13/16 15:00	04/14/16 15:01	1
Lead	0.019		0.0075	0.0075	mg/L		04/13/16 15:00	04/14/16 15:01	1
Manganese	0.097		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:01	1
Nickel	0.020	J	0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:01	1
Selenium	<0.050		0.050	0.020	mg/L		04/13/16 15:00	04/14/16 15:01	1
Silver	<0.025		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:01	1
Zinc	0.10	J	0.50	0.020	mg/L		04/13/16 15:00	04/14/16 15:01	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		04/13/16 15:02	04/14/16 13:13	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/13/16 15:02	04/14/16 13:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/13/16 15:00	04/14/16 14:53	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/13/16 15:00	04/14/16 14:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/13/16 12:30	04/14/16 11:17	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		04/13/16 12:30	04/14/16 11:58	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.027		0.018	0.0096	mg/Kg	☼	04/12/16 15:15	04/13/16 09:54	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B06 (0-5)

Lab Sample ID: 500-109975-7

Date Collected: 04/08/16 12:55

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 82.5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.46		0.200	0.200	SU			04/14/16 12:20	1

1

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B07 (0-5)

Lab Sample ID: 500-109975-8

Date Collected: 04/08/16 13:10

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0034	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Benzene	<0.0044		0.0044	0.00098	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Bromodichloromethane	<0.0044		0.0044	0.00075	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Bromoform	<0.0044		0.0044	0.00090	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Bromomethane	<0.0044		0.0044	0.0016	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
2-Butanone (MEK)	<0.0044		0.0044	0.0016	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Carbon disulfide	<0.0044		0.0044	0.0016	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Carbon tetrachloride	<0.0044		0.0044	0.00095	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Chlorobenzene	<0.0044		0.0044	0.0010	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Chloroethane	<0.0044		0.0044	0.0019	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Chloroform	<0.0044		0.0044	0.00086	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Chloromethane	<0.0044		0.0044	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
cis-1,2-Dichloroethene	<0.0044		0.0044	0.00090	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
cis-1,3-Dichloropropene	<0.0044		0.0044	0.0010	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Dibromochloromethane	<0.0044		0.0044	0.00051	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
1,1-Dichloroethane	<0.0044		0.0044	0.00091	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
1,2-Dichloroethane	<0.0044		0.0044	0.00065	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
1,1-Dichloroethene	<0.0044		0.0044	0.0016	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
1,2-Dichloropropane	<0.0044		0.0044	0.0012	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
1,3-Dichloropropane, Total	<0.0044		0.0044	0.0012	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Ethylbenzene	<0.0044		0.0044	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Methylene Chloride	<0.0044		0.0044	0.0033	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.00091	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Methyl tert-butyl ether	<0.0044		0.0044	0.0010	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Styrene	<0.0044		0.0044	0.0010	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
1,1,2,2-Tetrachloroethane	<0.0044		0.0044	0.00070	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Tetrachloroethene	<0.0044		0.0044	0.00092	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Toluene	<0.0044		0.0044	0.0015	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
trans-1,2-Dichloroethene	<0.0044		0.0044	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
trans-1,3-Dichloropropene	<0.0044		0.0044	0.0012	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
1,1,1-Trichloroethane	<0.0044		0.0044	0.0010	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
1,1,2-Trichloroethane	<0.0044		0.0044	0.00085	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Trichloroethene	<0.0044		0.0044	0.0012	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Vinyl acetate	<0.0044 *		0.0044	0.0012	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Vinyl chloride	<0.0044		0.0044	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1
Xylenes, Total	<0.0088		0.0088	0.0016	mg/Kg	☼	04/08/16 16:55	04/12/16 16:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 120	04/08/16 16:55	04/12/16 16:49	1
Dibromofluoromethane	109		75 - 120	04/08/16 16:55	04/12/16 16:49	1
1,2-Dichloroethane-d4 (Surr)	117		69 - 134	04/08/16 16:55	04/12/16 16:49	1
Toluene-d8 (Surr)	113		75 - 123	04/08/16 16:55	04/12/16 16:49	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	☼	04/15/16 16:58	04/19/16 00:34	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B07 (0-5)

Lab Sample ID: 500-109975-8

Date Collected: 04/08/16 13:10

Matrix: Solid

Date Received: 04/08/16 16:30

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	<0.20		0.20	0.047	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
2-Methylnaphthalene	0.0088	J	0.039	0.0072	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Hexachlorobenzene	<0.079		0.079	0.0090	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Phenanthrene	0.064		0.039	0.0054	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Anthracene	0.011	J	0.039	0.0065	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Fluoranthene	0.13		0.039	0.0072	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Pyrene	0.12		0.039	0.0077	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Benzo[a]anthracene	0.052		0.039	0.0052	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B07 (0-5)

Lab Sample ID: 500-109975-8

Date Collected: 04/08/16 13:10

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.069		0.039	0.011	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Benzo[b]fluoranthene	0.12		0.039	0.0084	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Benzo[k]fluoranthene	0.041		0.039	0.011	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Benzo[a]pyrene	0.069		0.039	0.0075	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
Benzo[g,h,i]perylene	0.030	J	0.039	0.013	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	04/15/16 16:58	04/19/16 00:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	70		40 - 130	04/15/16 16:58	04/19/16 00:34	1
Phenol-d5	65		36 - 123	04/15/16 16:58	04/19/16 00:34	1
Nitrobenzene-d5	68		33 - 124	04/15/16 16:58	04/19/16 00:34	1
2-Fluorobiphenyl	79		42 - 115	04/15/16 16:58	04/19/16 00:34	1
2,4,6-Tribromophenol	66		25 - 130	04/15/16 16:58	04/19/16 00:34	1
Terphenyl-d14	97		25 - 150	04/15/16 16:58	04/19/16 00:34	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.34	J	1.1	0.23	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	1
Arsenic	5.9		0.55	0.25	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	1
Barium	62	B	0.55	0.10	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	1
Beryllium	0.64		0.22	0.048	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	1
Boron	14		2.8	0.39	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	1
Cadmium	<0.11		0.11	0.032	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	1
Calcium	51000		110	36	mg/Kg	☼	04/12/16 15:41	04/13/16 13:08	10
Chromium	17	B	0.55	0.095	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	1
Cobalt	11		0.28	0.062	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	1
Copper	19		0.55	0.12	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	1
Iron	18000	B	11	4.3	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	1
Lead	19		0.28	0.14	mg/Kg	☼	04/13/16 16:04	04/14/16 14:44	1
Magnesium	21000	B	5.5	2.2	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	1
Manganese	320		0.55	0.11	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	1
Nickel	30		0.55	0.15	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	1
Potassium	2200		28	4.5	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	1
Selenium	0.43	J	0.55	0.27	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	1
Silver	<0.28		0.28	0.065	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	1
Sodium	1000		55	7.3	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	1
Vanadium	22		0.28	0.081	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	1
Zinc	58		1.1	0.35	mg/Kg	☼	04/12/16 15:41	04/13/16 11:55	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		04/13/16 15:02	04/14/16 15:02	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/13/16 15:02	04/14/16 15:02	1
Boron	0.21	J	0.50	0.050	mg/L		04/13/16 15:02	04/14/16 15:02	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B07 (0-5)

Lab Sample ID: 500-109975-8

Date Collected: 04/08/16 13:10

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0027	J	0.0050	0.0020	mg/L		04/13/16 15:02	04/14/16 15:02	1
Chromium	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 15:02	1
Cobalt	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 15:02	1
Iron	0.34	J	0.40	0.20	mg/L		04/13/16 15:02	04/14/16 15:02	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/13/16 15:02	04/14/16 15:02	1
Manganese	0.83		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 15:02	1
Nickel	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 15:02	1
Selenium	<0.050		0.050	0.020	mg/L		04/13/16 15:02	04/14/16 15:02	1
Silver	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 15:02	1
Zinc	<0.50		0.50	0.020	mg/L		04/13/16 15:02	04/14/16 15:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.48	J	0.50	0.050	mg/L		04/13/16 15:00	04/14/16 15:08	1
Beryllium	0.0050		0.0040	0.0040	mg/L		04/13/16 15:00	04/14/16 15:08	1
Boron	1.3		0.10	0.050	mg/L		04/13/16 15:00	04/14/16 15:08	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/13/16 15:00	04/14/16 15:08	1
Chromium	0.11		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:08	1
Cobalt	0.039		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:08	1
Iron	95		0.40	0.20	mg/L		04/13/16 15:00	04/14/16 15:08	1
Lead	0.10		0.0075	0.0075	mg/L		04/13/16 15:00	04/14/16 15:08	1
Manganese	0.89		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:08	1
Nickel	0.11		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:08	1
Selenium	<0.050		0.050	0.020	mg/L		04/13/16 15:00	04/14/16 15:08	1
Silver	<0.025		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:08	1
Zinc	0.30	J	0.50	0.020	mg/L		04/13/16 15:00	04/14/16 15:08	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		04/13/16 15:02	04/14/16 13:16	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/13/16 15:02	04/14/16 13:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/13/16 15:00	04/14/16 14:56	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/13/16 15:00	04/14/16 14:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/13/16 12:30	04/14/16 11:19	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		04/13/16 12:30	04/14/16 12:00	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.018	0.0097	mg/Kg	☼	04/12/16 15:15	04/13/16 09:56	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Client Sample ID: 2028V-01-B07 (0-5)

Lab Sample ID: 500-109975-8

Date Collected: 04/08/16 13:10

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 83.3

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.18		0.200	0.200	SU			04/14/16 12:26	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
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.
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.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-1

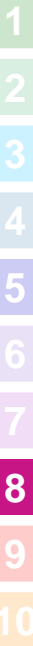
Laboratory: TestAmerica Chicago

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	04-30-17

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 604
Phone: 708.534.5200 Fax: 708.534.



500-109975 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 #: 500-109975
Chain of Custody Number: _____
Page _____ of _____
Temperature °C of Cooler: 26.31

Client		Client Project #		Preservative		Parameter										Preservative Key	
E+E		1009341.0012.02														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. NaHSC4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #															
W012(US14)																	
Project Location/State		Lab PM															
Cook Co, IL		D. Wright															
Sampler																	
JH, EF																	
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix											Comments
1		2028V-01-B03(0-1.5)	4/8/16	0957	2	S	VOX										
2		2028V-01-B02(0-1.5)	4/8/16	1005	2	S	SVOC										
		2028V-01-B01(0-2)	4/8/16	1035	2	S											
3		2028V-01-B01(0-5)	4/8/16	1045	2	S											
4		2028V-01-B04(0-8)	4/8/16	1155	2	S											
5		2028V-01-B04(8-15)	4/8/16	1200	2	S											
6		2028V-01-B05(0-5)	4/8/16	1230	2	S											
7		2028V-01-B06(0-5)	4/8/16	1255	2	S											
8		2028V-01-B07(0-5)	4/8/16	1310	2	S											

Turnaround Time Required (Business Days)

1 Day 2 Days 5 Days 7 Days 10 Days 15 Days 6 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)

Requested By <i>[Signature]</i>	Company E+E	Date 4/8/16	Time 1530	Received By <i>[Signature]</i>	Company TA	Date 4-8-16	Time 1530
Requested By <i>[Signature]</i>	Company TA-CRT	Date 4/8/16	Time 1630	Received By <i>[Signature]</i>	Company TA-CRT	Date 4/8/16	Time 1630

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: 500-109975-1

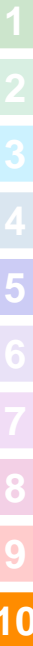
Login Number: 109975

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	2.6,3.1
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 3512 (US Route 14) Office Phone Number, if available: _____

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

550 East Northwest Highway (ISGS #2028V-5)

City: Des Plaines State: IL Zip Code: 60016

County: Cook Township: Maine

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

Latitude: 42.052202° Longitude: -87.910689°

(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: 0310635536 BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

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

Contact: Sam Mead

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

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

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

Contact: Sam Mead

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

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and 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 3512 (US Route 14)

Latitude: 42.052202° Longitude: -87.910689°

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 2028V-05-B01 was sampled within the construction zone adjacent to ISGS #2028V-5 (Des Plaines Honda). Refer to PSI Report for ISGS #2028V-5 (Des Plaines Honda) including Table 4-3, and Figure 4-1.

- 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 J109908-2.

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.

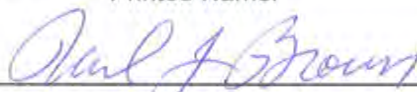
Street Address: 33 West Monroe Street

City: Chicago State: IL Zip Code: 60603

Phone: 312-578-9243

Neil J. Brown

Printed Name:



9/8/2016

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-91-439-09; WorkOrder #12

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 #2028V-5 (Des Plaines Honda)		Comparison Criteria				
	2028V-05-B01		MACs			TACO	
BORING	2028V-05-B01		Most Stringent	Within an MSA	Within Chicago	Residential	SCGIER
SAMPLE	2028V-05-B01 (0-5)	2028V-05-B01 (5-10)					
MATRIX	Soil	Soil					
DEPTH (feet)	0-5	5-10					
pH	8.57	8.28					
VOCs (None Detected)							
SVOCs (mg/kg)							
Benzo[a]anthracene	ND U	0.0096 J	0.9	1.8	1.1	1.8	--
Benzo[b]fluoranthene	ND U	0.012 J	0.9	2.1	1.5	2.1	--
Chrysene	ND U	0.011 J	88	--	--	88	--
Fluoranthene	ND U	0.023 J	3,100	--	--	3,100	--
Naphthalene	ND U	0.017 J	1.8	--	--	170	--
Phenanthrene	ND U	0.018 J	--	--	--	--	--
Pyrene	ND U	0.015 J	2,300	--	--	2,300	--
Inorganics (mg/kg)							
Antimony	0.33 J	0.6 J	5	--	--	31	--
Arsenic	8.1	8.9	11.3	13	--	13	--
Barium	72	71	1,500	--	--	5,500	--
Beryllium	0.67	0.68	22	--	--	160	--
Boron	7.3	5.5	40	--	--	16,000	--
Calcium	32,000	26,000	--	--	--	--	--
Chromium	15	15	21	--	--	230	--
Cobalt	14	13	20	--	--	4,700	--
Copper	23	17	2,900	--	--	2,900	--
Iron	20,000 †m	18,000 †m	15,000	15,900	--	--	--
Lead	19	19	107	--	--	400	--
Magnesium	19,000	9,700	325,000	--	--	--	--
Manganese	860 †m	520	630	636	--	1,600	--
Mercury	0.039	0.043	0.89	--	--	10	--
Nickel	30	24	100	--	--	1,600	--
Potassium	1,600	1,400	--	--	--	--	--
Selenium	0.38 J	0.74	1.3	--	--	390	--
Sodium	320	310	--	--	--	--	--
Thallium	0.41 J	ND U	2.6	--	--	6.3	--
Vanadium	21	23	550	--	--	550	--
Zinc	67	53	5,100	--	--	23,000	--
TCLP Metals (mg/L)							
Barium	0.41 J	0.44 J	--	--	--	--	2
Beryllium	ND U	ND U	--	--	--	--	0.004
Boron	0.065 J	0.051 J	--	--	--	--	2
Chromium	ND U	ND U	--	--	--	--	0.1
Cobalt	ND U	ND U	--	--	--	--	1
Iron	ND U	ND U	--	--	--	--	5
Lead	ND U	ND U	--	--	--	--	0.0075
Manganese	0.04	0.26 L	--	--	--	--	0.15
Nickel	ND U	ND U	--	--	--	--	0.1
Thallium	ND U	ND U	--	--	--	--	0.002
SPLP Metals (mg/L)							
Barium	0.43 J	0.15 J	--	--	--	--	2
Beryllium	0.0055 L	ND U	--	--	--	--	0.004
Boron	0.2	0.11	--	--	--	--	2
Chromium	0.12 L	0.042	--	--	--	--	0.1
Cobalt	0.03	ND U	--	--	--	--	1
Iron	120 L	37 L	--	--	--	--	5
Lead	0.045 L	0.011 L	--	--	--	--	0.0075
Manganese	0.5 L	0.14	--	--	--	--	0.15
Nickel	0.11 L	0.036	--	--	--	--	0.1
Thallium	0.0024 L	ND U	--	--	--	--	0.002

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: 500-109908-2
Client Project/Site: IDOT - Des Plaines - WO 012

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

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
4/18/2016 5:51:58 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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Job ID: 500-109908-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-109908-2

Comments

No additional comments.

Receipt

The samples were received on 4/7/2016 4:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.9° C and 3.3° C.

Receipt Exceptions

Received 2 16oz bottles with the same ID of 2028V-20-B04 (8-15) and no sample times. The 16 oz jars were compared to the VOC vials to determine their ids.

GC/MS VOA

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

GC/MS Semi VOA

Method(s) 8270D: The laboratory control sample (LCS) for preparation batch 500-330505 and analytical batch 500-330872 recovered outside control limits for several analytes. These analytes were biased high in the LCS and were not detected above the reporting limit in the associated samples; therefore, the data have been reported.

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 2028V-05-B01 (5-10) (500-109908-15), (LCS 500-330505/2-A), (MB 500-330505/1-A), (500-109908-E-1-J MS) and (500-109908-E-1-K 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) 6020A: The internal standard (Tb) was used to report the element Thallium (Tl) in batch 500-330905.

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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Client Sample ID: 2028V-05-B01 (0-5)

Lab Sample ID: 500-109908-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.33	J	1.2	0.25	mg/Kg	1	☼	6010B	Total/NA
Arsenic	8.1		0.60	0.28	mg/Kg	1	☼	6010B	Total/NA
Barium	72		0.60	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.67		0.24	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	7.3		3.0	0.42	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.054	J B	0.12	0.035	mg/Kg	1	☼	6010B	Total/NA
Calcium	32000	B	12	3.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	15	B	0.60	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	14		0.30	0.068	mg/Kg	1	☼	6010B	Total/NA
Copper	23		0.60	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	20000		12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	19		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	19000		6.0	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	860	B	0.60	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	30		0.60	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1600		30	4.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.38	J	0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Sodium	320		60	8.0	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.41	J	0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.30	0.088	mg/Kg	1	☼	6010B	Total/NA
Zinc	67		1.2	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	0.41	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.065	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.040		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.093	J B	0.50	0.020	mg/L	1		6010B	TCLP
Barium	0.43	J	0.50	0.050	mg/L	1		6010B	SPLP East
Beryllium	0.0055		0.0040	0.0040	mg/L	1		6010B	SPLP East
Boron	0.20		0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.12		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.030		0.025	0.010	mg/L	1		6010B	SPLP East
Iron	120	B	0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.045		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.50		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.11		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.28	J B	0.50	0.020	mg/L	1		6010B	SPLP East
Thallium	0.0024		0.0020	0.0020	mg/L	1		6020A	SPLP East
Mercury	0.039		0.018	0.0097	mg/Kg	1	☼	7471B	Total/NA
pH	8.57		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 2028V-05-B01 (5-10)

Lab Sample ID: 500-109908-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.017	J	0.038	0.0059	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.018	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.023	J	0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.015	J	0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0096	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.011	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.012	J	0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.60	J	1.2	0.24	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Client Sample ID: 2028V-05-B01 (5-10) (Continued)

Lab Sample ID: 500-109908-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.9		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	71		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.68		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	5.5		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Calcium	26000	B	12	3.7	mg/Kg	1	☼	6010B	Total/NA
Chromium	15	B	0.58	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	13		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	17		0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	18000		12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	19		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	9700		5.8	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	520	B	0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	24		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1400		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.74		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	310		58	7.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	53		1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.44	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.051	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.26		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.054	J B	0.50	0.020	mg/L	1		6010B	TCLP
Barium	0.15	J	0.50	0.050	mg/L	1		6010B	SPLP East
Boron	0.11		0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.042		0.025	0.010	mg/L	1		6010B	SPLP East
Iron	37	B	0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.011		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.14		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.036		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.22	J B	0.50	0.020	mg/L	1		6010B	SPLP East
Mercury	0.043		0.019	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.28		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Method Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
7470A	TCLP Mercury	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-109908-14	2028V-05-B01 (0-5)	Solid	04/07/16 09:35	04/07/16 16:50
500-109908-15	2028V-05-B01 (5-10)	Solid	04/07/16 09:37	04/07/16 16:50

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Client Sample ID: 2028V-05-B01 (0-5)

Lab Sample ID: 500-109908-14

Date Collected: 04/07/16 09:35

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 79.9

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	☼	04/08/16 08:45	04/11/16 20:29	1
Benzene	<0.0052		0.0052	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Bromodichloromethane	<0.0052		0.0052	0.00087	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Bromoform	<0.0052		0.0052	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Bromomethane	<0.0052		0.0052	0.0019	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
2-Butanone (MEK)	<0.0052		0.0052	0.0018	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Carbon disulfide	<0.0052		0.0052	0.0019	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Carbon tetrachloride	<0.0052		0.0052	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Chlorobenzene	<0.0052		0.0052	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Chloroethane	<0.0052		0.0052	0.0022	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Chloroform	<0.0052		0.0052	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Chloromethane	<0.0052		0.0052	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
cis-1,2-Dichloroethene	<0.0052		0.0052	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
cis-1,3-Dichloropropene	<0.0052		0.0052	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Dibromochloromethane	<0.0052		0.0052	0.00059	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
1,1-Dichloroethane	<0.0052		0.0052	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
1,2-Dichloroethane	<0.0052		0.0052	0.00077	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
1,1-Dichloroethene	<0.0052		0.0052	0.0019	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
1,2-Dichloropropane	<0.0052		0.0052	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
1,3-Dichloropropane, Total	<0.0052		0.0052	0.0015	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Ethylbenzene	<0.0052		0.0052	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
2-Hexanone	<0.0052		0.0052	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Methylene Chloride	<0.0052		0.0052	0.0039	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
4-Methyl-2-pentanone (MIBK)	<0.0052		0.0052	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Methyl tert-butyl ether	<0.0052		0.0052	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Styrene	<0.0052		0.0052	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
1,1,2,2-Tetrachloroethane	<0.0052		0.0052	0.00082	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Tetrachloroethene	<0.0052		0.0052	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Toluene	<0.0052		0.0052	0.0018	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
trans-1,2-Dichloroethene	<0.0052		0.0052	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
trans-1,3-Dichloropropene	<0.0052		0.0052	0.0015	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
1,1,1-Trichloroethane	<0.0052		0.0052	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
1,1,2-Trichloroethane	<0.0052		0.0052	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Trichloroethene	<0.0052		0.0052	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Vinyl acetate	<0.0052		0.0052	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Vinyl chloride	<0.0052		0.0052	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1
Xylenes, Total	<0.010		0.010	0.0019	mg/Kg	☼	04/08/16 08:45	04/11/16 20:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 120	04/08/16 08:45	04/11/16 20:29	1
Dibromofluoromethane	113		75 - 120	04/08/16 08:45	04/11/16 20:29	1
1,2-Dichloroethane-d4 (Surr)	112		69 - 134	04/08/16 08:45	04/11/16 20:29	1
Toluene-d8 (Surr)	115		75 - 123	04/08/16 08:45	04/11/16 20:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.089	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Client Sample ID: 2028V-05-B01 (0-5)

Lab Sample ID: 500-109908-14

Date Collected: 04/07/16 09:35

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 79.9

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	0.048	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
2,4,6-Trichlorophenol	<0.40 *		0.40	0.14	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
2-Methylnaphthalene	<0.040		0.040	0.0074	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
2-Chloronaphthalene	<0.20 *		0.20	0.044	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
2,6-Dinitrotoluene	<0.20 *		0.20	0.079	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Dimethyl phthalate	<0.20 *		0.20	0.052	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Acenaphthylene	<0.040 *		0.040	0.0053	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
2,4-Dinitrotoluene	<0.20 *		0.20	0.064	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Acenaphthene	<0.040 *		0.040	0.0072	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Dibenzofuran	<0.20 *		0.20	0.047	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Fluorene	<0.040 *		0.040	0.0056	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
4-Nitroaniline	<0.40 *		0.40	0.17	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Diethyl phthalate	<0.20 *		0.20	0.068	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
4-Chlorophenyl phenyl ether	<0.20 *		0.20	0.047	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
N-Nitrosodiphenylamine	<0.20 *		0.20	0.047	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Phenanthrene	<0.040		0.040	0.0056	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Carbazole	<0.20 *		0.20	0.10	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Pyrene	<0.040		0.040	0.0080	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Client Sample ID: 2028V-05-B01 (0-5)

Lab Sample ID: 500-109908-14

Date Collected: 04/07/16 09:35

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 79.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	04/11/16 07:04	04/14/16 16:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	50		40 - 130	04/11/16 07:04	04/14/16 16:58	1
Phenol-d5	49		36 - 123	04/11/16 07:04	04/14/16 16:58	1
Nitrobenzene-d5	53		33 - 124	04/11/16 07:04	04/14/16 16:58	1
2-Fluorobiphenyl	69		42 - 115	04/11/16 07:04	04/14/16 16:58	1
2,4,6-Tribromophenol	49		25 - 130	04/11/16 07:04	04/14/16 16:58	1
Terphenyl-d14	80		25 - 150	04/11/16 07:04	04/14/16 16:58	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.33	J	1.2	0.25	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Arsenic	8.1		0.60	0.28	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Barium	72		0.60	0.11	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Beryllium	0.67		0.24	0.052	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Boron	7.3		3.0	0.42	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Cadmium	0.054	J B	0.12	0.035	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Calcium	32000	B	12	3.9	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Chromium	15	B	0.60	0.10	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Cobalt	14		0.30	0.068	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Copper	23		0.60	0.13	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Iron	20000		12	4.6	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Lead	19		0.30	0.15	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Magnesium	19000		6.0	2.4	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Manganese	860	B	0.60	0.12	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Nickel	30		0.60	0.16	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Potassium	1600		30	4.9	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Selenium	0.38	J	0.60	0.30	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Silver	<0.30		0.30	0.071	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Sodium	320		60	8.0	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Thallium	0.41	J	0.60	0.30	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Vanadium	21		0.30	0.088	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	1
Zinc	67		1.2	0.38	mg/Kg	☼	04/08/16 15:37	04/09/16 18:15	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		04/12/16 14:17	04/13/16 12:41	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:17	04/13/16 12:41	1
Boron	0.065	J	0.50	0.050	mg/L		04/12/16 14:17	04/13/16 12:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Client Sample ID: 2028V-05-B01 (0-5)

Lab Sample ID: 500-109908-14

Date Collected: 04/07/16 09:35

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 79.9

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		04/12/16 14:17	04/13/16 12:41	1
Chromium	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:41	1
Cobalt	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:41	1
Iron	<0.40		0.40	0.20	mg/L		04/12/16 14:17	04/13/16 12:41	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/12/16 14:17	04/13/16 12:41	1
Manganese	0.040		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:41	1
Nickel	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:41	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:17	04/13/16 12:41	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:41	1
Zinc	0.093	J B	0.50	0.020	mg/L		04/12/16 14:17	04/13/16 12:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.43	J	0.50	0.050	mg/L		04/12/16 14:16	04/13/16 12:14	1
Beryllium	0.0055		0.0040	0.0040	mg/L		04/12/16 14:16	04/13/16 12:14	1
Boron	0.20		0.10	0.050	mg/L		04/12/16 14:16	04/13/16 12:14	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/12/16 14:16	04/13/16 12:14	1
Chromium	0.12		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:14	1
Cobalt	0.030		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:14	1
Iron	120	B	0.40	0.20	mg/L		04/12/16 14:16	04/13/16 12:14	1
Lead	0.045		0.0075	0.0075	mg/L		04/12/16 14:16	04/13/16 12:14	1
Manganese	0.50		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:14	1
Nickel	0.11		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:14	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:16	04/13/16 12:14	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:14	1
Zinc	0.28	J B	0.50	0.020	mg/L		04/12/16 14:16	04/13/16 12:14	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		04/12/16 14:17	04/13/16 12:59	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:17	04/13/16 12:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/12/16 14:16	04/13/16 14:12	1
Thallium	0.0024		0.0020	0.0020	mg/L		04/12/16 14:16	04/13/16 14:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/12/16 16:30	04/13/16 10:50	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		04/12/16 16:30	04/13/16 10:04	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.039		0.018	0.0097	mg/Kg	☼	04/08/16 15:45	04/11/16 10:04	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Client Sample ID: 2028V-05-B01 (0-5)

Lab Sample ID: 500-109908-14

Date Collected: 04/07/16 09:35

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 79.9

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.57		0.200	0.200	SU			04/12/16 17:38	1

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

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Client Sample ID: 2028V-05-B01 (5-10)

Lab Sample ID: 500-109908-15

Date Collected: 04/07/16 09:37

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 82.3

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	☼	04/08/16 08:45	04/11/16 20:54	1
Benzene	<0.0052		0.0052	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Bromodichloromethane	<0.0052		0.0052	0.00088	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Bromoform	<0.0052		0.0052	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Bromomethane	<0.0052		0.0052	0.0019	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
2-Butanone (MEK)	<0.0052		0.0052	0.0019	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Carbon disulfide	<0.0052		0.0052	0.0019	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Carbon tetrachloride	<0.0052		0.0052	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Chlorobenzene	<0.0052		0.0052	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Chloroethane	<0.0052		0.0052	0.0022	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Chloroform	<0.0052		0.0052	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Chloromethane	<0.0052		0.0052	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
cis-1,2-Dichloroethene	<0.0052		0.0052	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
cis-1,3-Dichloropropene	<0.0052		0.0052	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Dibromochloromethane	<0.0052		0.0052	0.00060	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
1,1-Dichloroethane	<0.0052		0.0052	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
1,2-Dichloroethane	<0.0052		0.0052	0.00077	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
1,1-Dichloroethene	<0.0052		0.0052	0.0019	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
1,2-Dichloropropane	<0.0052		0.0052	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
1,3-Dichloropropene, Total	<0.0052		0.0052	0.0015	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Ethylbenzene	<0.0052		0.0052	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
2-Hexanone	<0.0052		0.0052	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Methylene Chloride	<0.0052		0.0052	0.0039	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
4-Methyl-2-pentanone (MIBK)	<0.0052		0.0052	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Methyl tert-butyl ether	<0.0052		0.0052	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Styrene	<0.0052		0.0052	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
1,1,2,2-Tetrachloroethane	<0.0052		0.0052	0.00083	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Tetrachloroethene	<0.0052		0.0052	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Toluene	<0.0052		0.0052	0.0018	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
trans-1,2-Dichloroethene	<0.0052		0.0052	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
trans-1,3-Dichloropropene	<0.0052		0.0052	0.0015	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
1,1,1-Trichloroethane	<0.0052		0.0052	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
1,1,2-Trichloroethane	<0.0052		0.0052	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Trichloroethene	<0.0052		0.0052	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Vinyl acetate	<0.0052		0.0052	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Vinyl chloride	<0.0052		0.0052	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1
Xylenes, Total	<0.010		0.010	0.0019	mg/Kg	☼	04/08/16 08:45	04/11/16 20:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 120	04/08/16 08:45	04/11/16 20:54	1
Dibromofluoromethane	118		75 - 120	04/08/16 08:45	04/11/16 20:54	1
1,2-Dichloroethane-d4 (Surr)	110		69 - 134	04/08/16 08:45	04/11/16 20:54	1
Toluene-d8 (Surr)	112		75 - 123	04/08/16 08:45	04/11/16 20:54	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	☼	04/11/16 07:04	04/14/16 04:25	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Client Sample ID: 2028V-05-B01 (5-10)

Lab Sample ID: 500-109908-15

Date Collected: 04/07/16 09:37

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 82.3

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	☼	04/11/16 07:04	04/14/16 04:25	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Naphthalene	0.017	J	0.038	0.0059	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
2,4,6-Trichlorophenol	<0.38	*	0.38	0.13	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
2-Methylnaphthalene	<0.038		0.038	0.0070	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
2-Chloronaphthalene	<0.19	*	0.19	0.042	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
2,6-Dinitrotoluene	<0.19	*	0.19	0.075	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Dimethyl phthalate	<0.19	*	0.19	0.050	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Acenaphthylene	<0.038	*	0.038	0.0050	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
2,4-Dinitrotoluene	<0.19	*	0.19	0.061	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Acenaphthene	<0.038	*	0.038	0.0069	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Dibenzofuran	<0.19	*	0.19	0.045	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Fluorene	<0.038	*	0.038	0.0054	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
4-Nitroaniline	<0.38	*	0.38	0.16	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Diethyl phthalate	<0.19	*	0.19	0.065	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
4-Chlorophenyl phenyl ether	<0.19	*	0.19	0.045	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
N-Nitrosodiphenylamine	<0.19	*	0.19	0.045	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Phenanthrene	0.018	J	0.038	0.0053	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Carbazole	<0.19	*	0.19	0.095	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Fluoranthene	0.023	J	0.038	0.0071	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Pyrene	0.015	J	0.038	0.0076	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Benzo[a]anthracene	0.0096	J	0.038	0.0051	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Client Sample ID: 2028V-05-B01 (5-10)

Lab Sample ID: 500-109908-15

Date Collected: 04/07/16 09:37

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.011	J	0.038	0.010	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Benzo[b]fluoranthene	0.012	J	0.038	0.0082	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0099	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	04/11/16 07:04	04/14/16 04:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	110		40 - 130				04/11/16 07:04	04/14/16 04:25	1
Phenol-d5	103		36 - 123				04/11/16 07:04	04/14/16 04:25	1
Nitrobenzene-d5	105		33 - 124				04/11/16 07:04	04/14/16 04:25	1
2-Fluorobiphenyl	117	X	42 - 115				04/11/16 07:04	04/14/16 04:25	1
2,4,6-Tribromophenol	117		25 - 130				04/11/16 07:04	04/14/16 04:25	1
Terphenyl-d14	136		25 - 150				04/11/16 07:04	04/14/16 04:25	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.60	J	1.2	0.24	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Arsenic	8.9		0.58	0.27	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Barium	71		0.58	0.11	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Beryllium	0.68		0.23	0.050	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Boron	5.5		2.9	0.41	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Cadmium	<0.12		0.12	0.034	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Calcium	26000	B	12	3.7	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Chromium	15	B	0.58	0.10	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Cobalt	13		0.29	0.066	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Copper	17		0.58	0.13	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Iron	18000		12	4.5	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Lead	19		0.29	0.14	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Magnesium	9700		5.8	2.4	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Manganese	520	B	0.58	0.11	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Nickel	24		0.58	0.16	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Potassium	1400		29	4.7	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Selenium	0.74		0.58	0.29	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Sodium	310		58	7.7	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Vanadium	23		0.29	0.085	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1
Zinc	53		1.2	0.37	mg/Kg	☼	04/08/16 15:37	04/09/16 18:28	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.44	J	0.50	0.050	mg/L		04/12/16 14:17	04/13/16 12:46	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:17	04/13/16 12:46	1
Boron	0.051	J	0.50	0.050	mg/L		04/12/16 14:17	04/13/16 12:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Client Sample ID: 2028V-05-B01 (5-10)

Lab Sample ID: 500-109908-15

Date Collected: 04/07/16 09:37

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 82.3

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		04/12/16 14:17	04/13/16 12:46	1
Chromium	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:46	1
Cobalt	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:46	1
Iron	<0.40		0.40	0.20	mg/L		04/12/16 14:17	04/13/16 12:46	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/12/16 14:17	04/13/16 12:46	1
Manganese	0.26		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:46	1
Nickel	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:46	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:17	04/13/16 12:46	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:46	1
Zinc	0.054	J B	0.50	0.020	mg/L		04/12/16 14:17	04/13/16 12:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.15	J	0.50	0.050	mg/L		04/12/16 14:16	04/13/16 12:20	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:16	04/13/16 12:20	1
Boron	0.11		0.10	0.050	mg/L		04/12/16 14:16	04/13/16 12:20	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/12/16 14:16	04/13/16 12:20	1
Chromium	0.042		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:20	1
Cobalt	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:20	1
Iron	37	B	0.40	0.20	mg/L		04/12/16 14:16	04/13/16 12:20	1
Lead	0.011		0.0075	0.0075	mg/L		04/12/16 14:16	04/13/16 12:20	1
Manganese	0.14		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:20	1
Nickel	0.036		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:20	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:16	04/13/16 12:20	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:20	1
Zinc	0.22	J B	0.50	0.020	mg/L		04/12/16 14:16	04/13/16 12:20	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		04/12/16 14:17	04/13/16 13:02	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:17	04/13/16 13:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/12/16 14:16	04/13/16 14:16	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:16	04/13/16 14:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/12/16 16:30	04/13/16 10:52	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		04/12/16 16:30	04/13/16 10:06	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.043		0.019	0.010	mg/Kg	☼	04/08/16 15:45	04/11/16 10:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Client Sample ID: 2028V-05-B01 (5-10)

Lab Sample ID: 500-109908-15

Date Collected: 04/07/16 09:37

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 82.3

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.28		0.200	0.200	SU			04/12/16 17:41	1

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Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Qualifiers

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.
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)

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

GC/MS VOA

Prep Batch: 330407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	Total/NA	Solid	5035	
500-109908-15	2028V-05-B01 (5-10)	Total/NA	Solid	5035	

Analysis Batch: 330532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	Total/NA	Solid	8260B	330407
500-109908-15	2028V-05-B01 (5-10)	Total/NA	Solid	8260B	330407
LCS 500-330532/5	Lab Control Sample	Total/NA	Solid	8260B	
LCS 500-330532/6	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 500-330532/7	Method Blank	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 330505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	Total/NA	Solid	3541	
500-109908-15	2028V-05-B01 (5-10)	Total/NA	Solid	3541	
LCS 500-330505/2-A	Lab Control Sample	Total/NA	Solid	3541	
MB 500-330505/1-A	Method Blank	Total/NA	Solid	3541	

Analysis Batch: 330872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-330505/2-A	Lab Control Sample	Total/NA	Solid	8270D	330505
MB 500-330505/1-A	Method Blank	Total/NA	Solid	8270D	330505

Analysis Batch: 330964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-15	2028V-05-B01 (5-10)	Total/NA	Solid	8270D	330505

Analysis Batch: 331025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	Total/NA	Solid	8270D	330505

Metals

Prep Batch: 330334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	Total/NA	Solid	7471B	
500-109908-15	2028V-05-B01 (5-10)	Total/NA	Solid	7471B	
LCS 500-330334/13-A	Lab Control Sample	Total/NA	Solid	7471B	
MB 500-330334/12-A	Method Blank	Total/NA	Solid	7471B	

Prep Batch: 330360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	Total/NA	Solid	3050B	
500-109908-15	2028V-05-B01 (5-10)	Total/NA	Solid	3050B	
LCS 500-330360/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 500-330360/1-A	Method Blank	Total/NA	Solid	3050B	

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Metals (Continued)

Analysis Batch: 330527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	Total/NA	Solid	6010B	330360
500-109908-15	2028V-05-B01 (5-10)	Total/NA	Solid	6010B	330360
LCS 500-330360/2-A	Lab Control Sample	Total/NA	Solid	6010B	330360
MB 500-330360/1-A	Method Blank	Total/NA	Solid	6010B	330360

Analysis Batch: 330563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	Total/NA	Solid	7471B	330334
500-109908-15	2028V-05-B01 (5-10)	Total/NA	Solid	7471B	330334
LCS 500-330334/13-A	Lab Control Sample	Total/NA	Solid	7471B	330334
MB 500-330334/12-A	Method Blank	Total/NA	Solid	7471B	330334

Leach Batch: 330590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	SPLP East	Solid	1312	
500-109908-15	2028V-05-B01 (5-10)	SPLP East	Solid	1312	
500-109908-15 DU	2028V-05-B01 (5-10)	SPLP East	Solid	1312	
500-109908-15 MS	2028V-05-B01 (5-10)	SPLP East	Solid	1312	
LB 500-330590/1-B	Method Blank	SPLP East	Solid	1312	
LB 500-330590/1-C	Method Blank	SPLP East	Solid	1312	

Leach Batch: 330591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	TCLP	Solid	1311	
500-109908-15	2028V-05-B01 (5-10)	TCLP	Solid	1311	
LB 500-330591/1-B	Method Blank	TCLP	Solid	1311	
LB 500-330591/1-C	Method Blank	TCLP	Solid	1311	

Prep Batch: 330734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	SPLP East	Solid	3010A	330590
500-109908-15	2028V-05-B01 (5-10)	SPLP East	Solid	3010A	330590
500-109908-15 DU	2028V-05-B01 (5-10)	SPLP East	Solid	3010A	330590
500-109908-15 MS	2028V-05-B01 (5-10)	SPLP East	Solid	3010A	330590
LB 500-330590/1-B	Method Blank	SPLP East	Solid	3010A	330590
LCS 500-330734/2-A	Lab Control Sample	Total/NA	Solid	3010A	

Prep Batch: 330735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	TCLP	Solid	3010A	330591
500-109908-15	2028V-05-B01 (5-10)	TCLP	Solid	3010A	330591
LB 500-330591/1-B	Method Blank	TCLP	Solid	3010A	330591
LCS 500-330735/2-A	Lab Control Sample	Total/NA	Solid	3010A	

Prep Batch: 330761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	TCLP	Solid	7470A	330591
500-109908-15	2028V-05-B01 (5-10)	TCLP	Solid	7470A	330591
LB 500-330591/1-C	Method Blank	TCLP	Solid	7470A	330591
LCS 500-330761/13-A	Lab Control Sample	Total/NA	Solid	7470A	
MB 500-330761/12-A	Method Blank	Total/NA	Solid	7470A	

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Prep Batch: 330762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	SPLP East	Solid	7470A	330590
500-109908-15	2028V-05-B01 (5-10)	SPLP East	Solid	7470A	330590
LB 500-330590/1-C	Method Blank	SPLP East	Solid	7470A	330590
LCS 500-330762/13-A	Lab Control Sample	Total/NA	Solid	7470A	
MB 500-330762/12-A	Method Blank	Total/NA	Solid	7470A	

Analysis Batch: 330899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	SPLP East	Solid	7470A	330762
500-109908-14	2028V-05-B01 (0-5)	TCLP	Solid	7470A	330761
500-109908-15	2028V-05-B01 (5-10)	SPLP East	Solid	7470A	330762
500-109908-15	2028V-05-B01 (5-10)	TCLP	Solid	7470A	330761
LB 500-330590/1-C	Method Blank	SPLP East	Solid	7470A	330762
LB 500-330591/1-C	Method Blank	TCLP	Solid	7470A	330761
LCS 500-330761/13-A	Lab Control Sample	Total/NA	Solid	7470A	330761
LCS 500-330762/13-A	Lab Control Sample	Total/NA	Solid	7470A	330762
MB 500-330761/12-A	Method Blank	Total/NA	Solid	7470A	330761
MB 500-330762/12-A	Method Blank	Total/NA	Solid	7470A	330762

Analysis Batch: 330903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	TCLP	Solid	6010B	330735
500-109908-15	2028V-05-B01 (5-10)	TCLP	Solid	6010B	330735
LB 500-330591/1-B	Method Blank	TCLP	Solid	6010B	330735
LCS 500-330735/2-A	Lab Control Sample	Total/NA	Solid	6010B	330735

Analysis Batch: 330904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	SPLP East	Solid	6010B	330734
500-109908-15	2028V-05-B01 (5-10)	SPLP East	Solid	6010B	330734
500-109908-15 DU	2028V-05-B01 (5-10)	SPLP East	Solid	6010B	330734
500-109908-15 MS	2028V-05-B01 (5-10)	SPLP East	Solid	6010B	330734
LB 500-330590/1-B	Method Blank	SPLP East	Solid	6010B	330734
LCS 500-330734/2-A	Lab Control Sample	Total/NA	Solid	6010B	330734

Analysis Batch: 330905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	SPLP East	Solid	6020A	330734
500-109908-14	2028V-05-B01 (0-5)	TCLP	Solid	6020A	330735
500-109908-15	2028V-05-B01 (5-10)	SPLP East	Solid	6020A	330734
500-109908-15	2028V-05-B01 (5-10)	TCLP	Solid	6020A	330735
LB 500-330590/1-B	Method Blank	SPLP East	Solid	6020A	330734
LB 500-330591/1-B	Method Blank	TCLP	Solid	6020A	330735
LCS 500-330734/2-A	Lab Control Sample	Total/NA	Solid	6020A	330734
LCS 500-330735/2-A	Lab Control Sample	Total/NA	Solid	6020A	330735

General Chemistry

Analysis Batch: 330556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	Total/NA	Solid	Moisture	
500-109908-15	2028V-05-B01 (5-10)	Total/NA	Solid	Moisture	

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

General Chemistry (Continued)

Analysis Batch: 330840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-109908-14	2028V-05-B01 (0-5)	Total/NA	Solid	9045D	
500-109908-15	2028V-05-B01 (5-10)	Total/NA	Solid	9045D	

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Surrogate Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	12DCE	TOL
		(70-120)	(75-120)	(69-134)	(75-123)
500-109908-14	2028V-05-B01 (0-5)	115	113	112	115
500-109908-15	2028V-05-B01 (5-10)	117	118	110	112
LCS 500-330532/5	Lab Control Sample	112	105	94	117
LCS 500-330532/6	Lab Control Sample Dup	113	106	94	118
MB 500-330532/7	Method Blank	114	108	94	117

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2FP	PHL	NBZ	FBP	TBP	TPH
		(40-130)	(36-123)	(33-124)	(42-115)	(25-130)	(25-150)
500-109908-14	2028V-05-B01 (0-5)	50	49	53	69	49	80
500-109908-15	2028V-05-B01 (5-10)	110	103	105	117 X	117	136
LCS 500-330505/2-A	Lab Control Sample	111	110	103	126 X	133 X	121
MB 500-330505/1-A	Method Blank	110	109	97	127 X	122	121

Surrogate Legend

2FP = 2-Fluorophenol
PHL = Phenol-d5
NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol
TPH = Terphenyl-d14

QC Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

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

Lab Sample ID: MB 500-330532/7

Matrix: Solid

Analysis Batch: 330532

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0039	mg/Kg			04/11/16 12:27	1
Benzene	<0.0050		0.0050	0.0011	mg/Kg			04/11/16 12:27	1
Bromodichloromethane	<0.0050		0.0050	0.00084	mg/Kg			04/11/16 12:27	1
Bromoform	<0.0050		0.0050	0.0010	mg/Kg			04/11/16 12:27	1
Bromomethane	<0.0050		0.0050	0.0018	mg/Kg			04/11/16 12:27	1
2-Butanone (MEK)	<0.0050		0.0050	0.0018	mg/Kg			04/11/16 12:27	1
Carbon disulfide	<0.0050		0.0050	0.0018	mg/Kg			04/11/16 12:27	1
Carbon tetrachloride	<0.0050		0.0050	0.0011	mg/Kg			04/11/16 12:27	1
Chlorobenzene	<0.0050		0.0050	0.0012	mg/Kg			04/11/16 12:27	1
Chloroethane	<0.0050		0.0050	0.0021	mg/Kg			04/11/16 12:27	1
Chloroform	<0.0050		0.0050	0.00098	mg/Kg			04/11/16 12:27	1
Chloromethane	<0.0050		0.0050	0.0012	mg/Kg			04/11/16 12:27	1
cis-1,2-Dichloroethene	<0.0050		0.0050	0.0010	mg/Kg			04/11/16 12:27	1
cis-1,3-Dichloropropene	<0.0050		0.0050	0.0011	mg/Kg			04/11/16 12:27	1
Dibromochloromethane	<0.0050		0.0050	0.00058	mg/Kg			04/11/16 12:27	1
1,1-Dichloroethane	<0.0050		0.0050	0.0010	mg/Kg			04/11/16 12:27	1
1,2-Dichloroethane	<0.0050		0.0050	0.00074	mg/Kg			04/11/16 12:27	1
1,1-Dichloroethene	<0.0050		0.0050	0.0018	mg/Kg			04/11/16 12:27	1
1,2-Dichloropropane	<0.0050		0.0050	0.0013	mg/Kg			04/11/16 12:27	1
1,3-Dichloropropene, Total	<0.0050		0.0050	0.0014	mg/Kg			04/11/16 12:27	1
Ethylbenzene	<0.0050		0.0050	0.0012	mg/Kg			04/11/16 12:27	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			04/11/16 12:27	1
Methylene Chloride	<0.0050		0.0050	0.0038	mg/Kg			04/11/16 12:27	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0010	mg/Kg			04/11/16 12:27	1
Methyl tert-butyl ether	<0.0050		0.0050	0.0012	mg/Kg			04/11/16 12:27	1
Styrene	<0.0050		0.0050	0.0012	mg/Kg			04/11/16 12:27	1
1,1,2,2-Tetrachloroethane	<0.0050		0.0050	0.00079	mg/Kg			04/11/16 12:27	1
Tetrachloroethene	<0.0050		0.0050	0.0010	mg/Kg			04/11/16 12:27	1
Toluene	<0.0050		0.0050	0.0017	mg/Kg			04/11/16 12:27	1
trans-1,2-Dichloroethene	<0.0050		0.0050	0.0013	mg/Kg			04/11/16 12:27	1
trans-1,3-Dichloropropene	<0.0050		0.0050	0.0014	mg/Kg			04/11/16 12:27	1
1,1,1-Trichloroethane	<0.0050		0.0050	0.0012	mg/Kg			04/11/16 12:27	1
1,1,2-Trichloroethane	<0.0050		0.0050	0.00097	mg/Kg			04/11/16 12:27	1
Trichloroethene	<0.0050		0.0050	0.0014	mg/Kg			04/11/16 12:27	1
Vinyl acetate	<0.0050		0.0050	0.0013	mg/Kg			04/11/16 12:27	1
Vinyl chloride	<0.0050		0.0050	0.0012	mg/Kg			04/11/16 12:27	1
Xylenes, Total	<0.010		0.010	0.0019	mg/Kg			04/11/16 12:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 120		04/11/16 12:27	1
Dibromofluoromethane	108		75 - 120		04/11/16 12:27	1
1,2-Dichloroethane-d4 (Surr)	94		69 - 134		04/11/16 12:27	1
Toluene-d8 (Surr)	117		75 - 123		04/11/16 12:27	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

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

Lab Sample ID: LCS 500-330532/5

Matrix: Solid

Analysis Batch: 330532

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0451		mg/Kg		90	40 - 148
Benzene	0.0500	0.0501		mg/Kg		100	70 - 120
Bromodichloromethane	0.0500	0.0487		mg/Kg		97	67 - 120
Bromoform	0.0500	0.0478		mg/Kg		96	50 - 129
Bromomethane	0.0500	0.0531		mg/Kg		106	50 - 134
2-Butanone (MEK)	0.0500	0.0453		mg/Kg		91	47 - 138
Carbon disulfide	0.0500	0.0491		mg/Kg		98	67 - 133
Carbon tetrachloride	0.0500	0.0490		mg/Kg		98	65 - 123
Chlorobenzene	0.0500	0.0504		mg/Kg		101	70 - 120
Chloroethane	0.0500	0.0476		mg/Kg		95	40 - 150
Chloroform	0.0500	0.0513		mg/Kg		103	70 - 120
Chloromethane	0.0500	0.0547		mg/Kg		109	63 - 135
cis-1,2-Dichloroethene	0.0500	0.0509		mg/Kg		102	70 - 120
cis-1,3-Dichloropropene	0.0500	0.0487		mg/Kg		97	70 - 120
Dibromochloromethane	0.0500	0.0488		mg/Kg		98	68 - 120
1,1-Dichloroethane	0.0500	0.0510		mg/Kg		102	70 - 125
1,2-Dichloroethane	0.0500	0.0495		mg/Kg		99	65 - 126
1,1-Dichloroethene	0.0500	0.0503		mg/Kg		101	70 - 122
1,2-Dichloropropane	0.0500	0.0499		mg/Kg		100	70 - 126
Ethylbenzene	0.0500	0.0496		mg/Kg		99	70 - 120
2-Hexanone	0.0500	0.0459		mg/Kg		92	51 - 139
Methylene Chloride	0.0500	0.0529		mg/Kg		106	70 - 121
4-Methyl-2-pentanone (MIBK)	0.0500	0.0462		mg/Kg		92	51 - 141
Methyl tert-butyl ether	0.0500	0.0496		mg/Kg		99	70 - 121
Styrene	0.0500	0.0509		mg/Kg		102	70 - 121
1,1,1,2-Tetrachloroethane	0.0500	0.0483		mg/Kg		97	70 - 125
Tetrachloroethene	0.0500	0.0485		mg/Kg		97	70 - 122
Toluene	0.0500	0.0491		mg/Kg		98	70 - 121
trans-1,2-Dichloroethene	0.0500	0.0506		mg/Kg		101	70 - 120
trans-1,3-Dichloropropene	0.0500	0.0475		mg/Kg		95	70 - 121
1,1,1-Trichloroethane	0.0500	0.0503		mg/Kg		101	70 - 120
1,1,2-Trichloroethane	0.0500	0.0481		mg/Kg		96	70 - 120
Trichloroethene	0.0500	0.0489		mg/Kg		98	70 - 124
Vinyl acetate	0.0500	0.0412		mg/Kg		82	40 - 150
Vinyl chloride	0.0500	0.0516		mg/Kg		103	64 - 125
Xylenes, Total	0.100	0.101		mg/Kg		101	70 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 120
Dibromofluoromethane	105		75 - 120
1,2-Dichloroethane-d4 (Surr)	94		69 - 134
Toluene-d8 (Surr)	117		75 - 123

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

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

Lab Sample ID: LCSD 500-330532/6

Matrix: Solid

Analysis Batch: 330532

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0423		mg/Kg		85	40 - 148	6	30
Benzene	0.0500	0.0481		mg/Kg		96	70 - 120	4	30
Bromodichloromethane	0.0500	0.0474		mg/Kg		95	67 - 120	3	30
Bromoform	0.0500	0.0465		mg/Kg		93	50 - 129	3	30
Bromomethane	0.0500	0.0533		mg/Kg		107	50 - 134	0	30
2-Butanone (MEK)	0.0500	0.0441		mg/Kg		88	47 - 138	3	30
Carbon disulfide	0.0500	0.0474		mg/Kg		95	67 - 133	3	30
Carbon tetrachloride	0.0500	0.0479		mg/Kg		96	65 - 123	2	30
Chlorobenzene	0.0500	0.0486		mg/Kg		97	70 - 120	4	30
Chloroethane	0.0500	0.0459		mg/Kg		92	40 - 150	4	30
Chloroform	0.0500	0.0488		mg/Kg		98	70 - 120	5	30
Chloromethane	0.0500	0.0524		mg/Kg		105	63 - 135	4	30
cis-1,2-Dichloroethene	0.0500	0.0488		mg/Kg		98	70 - 120	4	30
cis-1,3-Dichloropropene	0.0500	0.0470		mg/Kg		94	70 - 120	4	30
Dibromochloromethane	0.0500	0.0465		mg/Kg		93	68 - 120	5	30
1,1-Dichloroethane	0.0500	0.0492		mg/Kg		98	70 - 125	4	30
1,2-Dichloroethane	0.0500	0.0493		mg/Kg		99	65 - 126	0	30
1,1-Dichloroethene	0.0500	0.0480		mg/Kg		96	70 - 122	5	30
1,2-Dichloropropane	0.0500	0.0483		mg/Kg		97	70 - 126	3	30
Ethylbenzene	0.0500	0.0477		mg/Kg		95	70 - 120	4	30
2-Hexanone	0.0500	0.0433		mg/Kg		87	51 - 139	6	30
Methylene Chloride	0.0500	0.0519		mg/Kg		104	70 - 121	2	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0442		mg/Kg		88	51 - 141	4	30
Methyl tert-butyl ether	0.0500	0.0495		mg/Kg		99	70 - 121	0	30
Styrene	0.0500	0.0494		mg/Kg		99	70 - 121	3	30
1,1,1,2-Tetrachloroethane	0.0500	0.0475		mg/Kg		95	70 - 125	2	30
Tetrachloroethene	0.0500	0.0460		mg/Kg		92	70 - 122	5	30
Toluene	0.0500	0.0470		mg/Kg		94	70 - 121	4	30
trans-1,2-Dichloroethene	0.0500	0.0483		mg/Kg		97	70 - 120	5	30
trans-1,3-Dichloropropene	0.0500	0.0471		mg/Kg		94	70 - 121	1	30
1,1,1-Trichloroethane	0.0500	0.0484		mg/Kg		97	70 - 120	4	30
1,1,2-Trichloroethane	0.0500	0.0481		mg/Kg		96	70 - 120	0	30
Trichloroethene	0.0500	0.0478		mg/Kg		96	70 - 124	2	30
Vinyl acetate	0.0500	0.0371		mg/Kg		74	40 - 150	10	30
Vinyl chloride	0.0500	0.0510		mg/Kg		102	64 - 125	1	30
Xylenes, Total	0.100	0.0973		mg/Kg		97	70 - 123	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene (Surr)	113		70 - 120
Dibromofluoromethane	106		75 - 120
1,2-Dichloroethane-d4 (Surr)	94		69 - 134
Toluene-d8 (Surr)	118		75 - 123

QC Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

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

Lab Sample ID: MB 500-330505/1-A

Matrix: Solid

Analysis Batch: 330872

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 330505

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.17		0.17	0.074	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Isophorone	<0.17		0.17	0.037	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
2-Methylnaphthalene	<0.033		0.033	0.0061	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Carbazole	<0.17		0.17	0.083	mg/Kg		04/11/16 07:04	04/13/16 15:20	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

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

Lab Sample ID: MB 500-330505/1-A
Matrix: Solid
Analysis Batch: 330872

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 330505

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		04/11/16 07:04	04/13/16 15:20	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		04/11/16 07:04	04/13/16 15:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	110		40 - 130	04/11/16 07:04	04/13/16 15:20	1
Phenol-d5	109		36 - 123	04/11/16 07:04	04/13/16 15:20	1
Nitrobenzene-d5	97		33 - 124	04/11/16 07:04	04/13/16 15:20	1
2-Fluorobiphenyl	127	X	42 - 115	04/11/16 07:04	04/13/16 15:20	1
2,4,6-Tribromophenol	122		25 - 130	04/11/16 07:04	04/13/16 15:20	1
Terphenyl-d14	121		25 - 150	04/11/16 07:04	04/13/16 15:20	1

Lab Sample ID: LCS 500-330505/2-A
Matrix: Solid
Analysis Batch: 330872

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 330505

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.40		mg/Kg		105	55 - 118
Bis(2-chloroethyl)ether	1.33	1.34		mg/Kg		100	53 - 116
1,3-Dichlorobenzene	1.33	1.36		mg/Kg		102	56 - 110
1,4-Dichlorobenzene	1.33	1.39		mg/Kg		105	57 - 110
1,2-Dichlorobenzene	1.33	1.39		mg/Kg		105	56 - 110
2-Methylphenol	1.33	1.38		mg/Kg		103	53 - 123
2,2'-oxybis[1-chloropropane]	1.33	1.12		mg/Kg		84	22 - 133
N-Nitrosodi-n-propylamine	1.33	1.40		mg/Kg		105	56 - 119
Hexachloroethane	1.33	1.33		mg/Kg		100	54 - 111
2-Chlorophenol	1.33	1.41		mg/Kg		106	57 - 117
Nitrobenzene	1.33	1.31		mg/Kg		98	56 - 121
Bis(2-chloroethoxy)methane	1.33	1.43		mg/Kg		108	59 - 116
1,2,4-Trichlorobenzene	1.33	1.48		mg/Kg		111	60 - 116
Isophorone	1.33	1.28		mg/Kg		96	54 - 120
2,4-Dimethylphenol	1.33	1.53		mg/Kg		115	50 - 120
Hexachlorobutadiene	1.33	1.48		mg/Kg		111	56 - 120
Naphthalene	1.33	1.44		mg/Kg		108	58 - 116
2,4-Dichlorophenol	1.33	1.54		mg/Kg		116	61 - 116

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

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

Lab Sample ID: LCS 500-330505/2-A
Matrix: Solid
Analysis Batch: 330872

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 330505

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	1.13		mg/Kg		84	10 - 150
2,4,6-Trichlorophenol	1.33	1.97	*	mg/Kg		148	50 - 120
2,4,5-Trichlorophenol	1.33	1.44		mg/Kg		108	42 - 119
Hexachlorocyclopentadiene	1.33	1.02		mg/Kg		77	10 - 116
2-Methylnaphthalene	1.33	1.49		mg/Kg		112	55 - 120
2-Nitroaniline	1.33	1.43		mg/Kg		107	52 - 121
2-Chloronaphthalene	1.33	1.62	*	mg/Kg		122	57 - 112
4-Chloro-3-methylphenol	1.33	1.46		mg/Kg		109	59 - 117
2,6-Dinitrotoluene	1.33	1.58	*	mg/Kg		119	57 - 118
2-Nitrophenol	1.33	1.55		mg/Kg		116	58 - 121
3-Nitroaniline	1.33	1.66		mg/Kg		125	20 - 144
Dimethyl phthalate	1.33	1.61	*	mg/Kg		120	60 - 112
2,4-Dinitrophenol	2.67	1.73		mg/Kg		65	10 - 110
Acenaphthylene	1.33	1.65	*	mg/Kg		124	57 - 116
2,4-Dinitrotoluene	1.33	1.68	*	mg/Kg		126	59 - 119
Acenaphthene	1.33	1.64	*	mg/Kg		123	52 - 113
Dibenzofuran	1.33	1.63	*	mg/Kg		122	59 - 110
4-Nitrophenol	2.67	3.05		mg/Kg		114	32 - 123
Fluorene	1.33	1.67	*	mg/Kg		125	56 - 115
4-Nitroaniline	1.33	2.05	*	mg/Kg		154	55 - 146
4-Bromophenyl phenyl ether	1.33	1.57		mg/Kg		118	61 - 124
Hexachlorobenzene	1.33	1.55		mg/Kg		117	62 - 126
Diethyl phthalate	1.33	1.66	*	mg/Kg		125	58 - 117
4-Chlorophenyl phenyl ether	1.33	1.71	*	mg/Kg		128	61 - 111
Pentachlorophenol	2.67	2.78		mg/Kg		104	12 - 116
N-Nitrosodiphenylamine	1.33	1.61	*	mg/Kg		121	62 - 117
4,6-Dinitro-2-methylphenol	2.67	2.17		mg/Kg		82	10 - 110
Phenanthrene	1.33	1.67		mg/Kg		125	58 - 125
Anthracene	1.33	1.40		mg/Kg		105	57 - 118
Carbazole	1.33	2.05	*	mg/Kg		154	65 - 137
Di-n-butyl phthalate	1.33	1.47		mg/Kg		111	61 - 123
Fluoranthene	1.33	1.55		mg/Kg		116	61 - 124
Pyrene	1.33	1.51		mg/Kg		113	60 - 115
Butyl benzyl phthalate	1.33	1.41		mg/Kg		105	61 - 115
Benzo[a]anthracene	1.33	1.52		mg/Kg		114	63 - 115
Chrysene	1.33	1.48		mg/Kg		111	63 - 118
3,3'-Dichlorobenzidine	1.33	1.32		mg/Kg		99	40 - 110
Bis(2-ethylhexyl) phthalate	1.33	1.48		mg/Kg		111	62 - 117
Di-n-octyl phthalate	1.33	1.42		mg/Kg		107	58 - 129
Benzo[b]fluoranthene	1.33	1.41		mg/Kg		106	61 - 123
Benzo[k]fluoranthene	1.33	1.41		mg/Kg		105	59 - 125
Benzo[a]pyrene	1.33	1.58		mg/Kg		118	64 - 122
Indeno[1,2,3-cd]pyrene	1.33	1.66		mg/Kg		125	50 - 149
Dibenz(a,h)anthracene	1.33	1.69		mg/Kg		127	61 - 134
Benzo[g,h,i]perylene	1.33	1.57		mg/Kg		118	55 - 134
3 & 4 Methylphenol	1.33	1.45		mg/Kg		108	55 - 124

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

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

Lab Sample ID: LCS 500-330505/2-A
Matrix: Solid
Analysis Batch: 330872

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 330505

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	111		40 - 130
Phenol-d5	110		36 - 123
Nitrobenzene-d5	103		33 - 124
2-Fluorobiphenyl	126	X	42 - 115
2,4,6-Tribromophenol	133	X	25 - 130
Terphenyl-d14	121		25 - 150

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-330360/1-A
Matrix: Solid
Analysis Batch: 330527

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 330360

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.0		2.0	0.42	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Arsenic	<1.0		1.0	0.46	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Barium	<1.0		1.0	0.18	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Beryllium	<0.40		0.40	0.087	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Boron	<5.0		5.0	0.70	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Cadmium	0.0602	J	0.20	0.058	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Calcium	13.7	J	20	6.4	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Chromium	0.297	J	1.0	0.17	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Cobalt	<0.50		0.50	0.11	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Copper	<1.0		1.0	0.22	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Iron	<20		20	7.7	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Lead	<0.50		0.50	0.25	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Magnesium	<10		10	4.1	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Manganese	0.240	J	1.0	0.20	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Nickel	<1.0		1.0	0.27	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Potassium	<50		50	8.2	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Selenium	<1.0		1.0	0.50	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Silver	<0.50		0.50	0.12	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Sodium	<100		100	13	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Thallium	<1.0		1.0	0.49	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Vanadium	<0.50		0.50	0.15	mg/Kg		04/08/16 15:37	04/09/16 16:34	1
Zinc	<2.0		2.0	0.63	mg/Kg		04/08/16 15:37	04/09/16 16:34	1

Lab Sample ID: LCS 500-330360/2-A
Matrix: Solid
Analysis Batch: 330527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 330360

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	47.5		mg/Kg		95	80 - 120
Arsenic	10.0	9.61		mg/Kg		96	80 - 120
Barium	200	205		mg/Kg		102	80 - 120
Beryllium	5.00	5.27		mg/Kg		105	80 - 120
Boron	100	88.4		mg/Kg		88	80 - 120
Cadmium	5.00	4.85		mg/Kg		97	80 - 120

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

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

Lab Sample ID: LCS 500-330360/2-A
Matrix: Solid
Analysis Batch: 330527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 330360

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	1000	1020		mg/Kg		102	80 - 120
Chromium	20.0	20.2		mg/Kg		101	80 - 120
Cobalt	50.0	50.2		mg/Kg		100	80 - 120
Copper	25.0	24.8		mg/Kg		99	80 - 120
Iron	100	108		mg/Kg		108	80 - 120
Lead	10.0	9.76		mg/Kg		98	80 - 120
Magnesium	1000	1010		mg/Kg		101	80 - 120
Manganese	50.0	52.3		mg/Kg		105	80 - 120
Nickel	50.0	49.6		mg/Kg		99	80 - 120
Potassium	1000	1000		mg/Kg		100	80 - 120
Selenium	10.0	9.01		mg/Kg		90	80 - 120
Silver	5.00	4.68		mg/Kg		94	80 - 120
Sodium	1000	1000		mg/Kg		100	80 - 120
Thallium	10.0	9.36		mg/Kg		94	80 - 120
Vanadium	50.0	50.7		mg/Kg		101	80 - 120
Zinc	50.0	48.7		mg/Kg		97	80 - 120

Lab Sample ID: LCS 500-330734/2-A
Matrix: Solid
Analysis Batch: 330904

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 330734

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.500	0.481	J	mg/L		96	80 - 120
Beryllium	0.0500	0.0470		mg/L		94	80 - 120
Boron	1.00	0.899		mg/L		90	80 - 120
Cadmium	0.0500	0.0466		mg/L		93	80 - 120
Chromium	0.200	0.189		mg/L		94	80 - 120
Cobalt	0.500	0.482		mg/L		96	80 - 120
Iron	1.00	0.991		mg/L		99	80 - 120
Lead	0.100	0.0943		mg/L		94	80 - 120
Manganese	0.500	0.497		mg/L		99	80 - 120
Nickel	0.500	0.474		mg/L		95	80 - 120
Selenium	0.100	0.0873		mg/L		87	80 - 120
Silver	0.0500	0.0475		mg/L		95	80 - 120
Zinc	0.500	0.470	J	mg/L		94	80 - 120

Lab Sample ID: LCS 500-330735/2-A
Matrix: Solid
Analysis Batch: 330903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 330735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	2.00	2.05		mg/L		102	80 - 120
Beryllium	0.0500	0.0509		mg/L		102	80 - 120
Boron	1.00	0.957		mg/L		96	80 - 120
Cadmium	0.0500	0.0491		mg/L		98	80 - 120
Chromium	0.200	0.201		mg/L		100	80 - 120
Cobalt	0.500	0.512		mg/L		102	80 - 120
Iron	1.00	1.13		mg/L		113	80 - 120
Lead	0.100	0.102		mg/L		102	80 - 120

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QC Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

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

Lab Sample ID: LCS 500-330735/2-A
Matrix: Solid
Analysis Batch: 330903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 330735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	0.500	0.503		mg/L		101	80 - 120
Nickel	0.500	0.509		mg/L		102	80 - 120
Selenium	0.100	0.0991		mg/L		99	80 - 120
Silver	0.0500	0.0482		mg/L		96	80 - 120
Zinc	0.500	0.499	J	mg/L		100	80 - 120

Lab Sample ID: LB 500-330591/1-B
Matrix: Solid
Analysis Batch: 330903

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 330735

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		04/12/16 14:17	04/13/16 10:34	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:17	04/13/16 10:34	1
Boron	<0.50		0.50	0.050	mg/L		04/12/16 14:17	04/13/16 10:34	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/12/16 14:17	04/13/16 10:34	1
Chromium	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 10:34	1
Cobalt	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 10:34	1
Iron	<0.40		0.40	0.20	mg/L		04/12/16 14:17	04/13/16 10:34	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/12/16 14:17	04/13/16 10:34	1
Manganese	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 10:34	1
Nickel	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 10:34	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:17	04/13/16 10:34	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 10:34	1
Zinc	0.0420	J	0.50	0.020	mg/L		04/12/16 14:17	04/13/16 10:34	1

Lab Sample ID: LB 500-330590/1-B
Matrix: Solid
Analysis Batch: 330904

Client Sample ID: Method Blank
Prep Type: SPLP East
Prep Batch: 330734

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		04/12/16 14:16	04/13/16 10:06	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:16	04/13/16 10:06	1
Boron	<0.10		0.10	0.050	mg/L		04/12/16 14:16	04/13/16 10:06	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/12/16 14:16	04/13/16 10:06	1
Chromium	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:06	1
Cobalt	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:06	1
Iron	0.309	J	0.40	0.20	mg/L		04/12/16 14:16	04/13/16 10:06	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/12/16 14:16	04/13/16 10:06	1
Manganese	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:06	1
Nickel	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:06	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:16	04/13/16 10:06	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:06	1
Zinc	0.198	J	0.50	0.020	mg/L		04/12/16 14:16	04/13/16 10:06	1

QC Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

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

Lab Sample ID: 500-109908-15 MS

Matrix: Solid
Analysis Batch: 330904

Client Sample ID: 2028V-05-B01 (5-10)

Prep Type: SPLP East
Prep Batch: 330734

Analyte	Sample	Sample	Spike	MS MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Barium	0.15	J	0.500	0.727		mg/L		115	50 - 150
Beryllium	<0.0040		0.0500	0.0536		mg/L		107	50 - 150
Boron	0.11		1.00	1.10		mg/L		99	50 - 150
Cadmium	<0.0050		0.0500	0.0497		mg/L		99	50 - 150
Chromium	0.042		0.200	0.257		mg/L		107	50 - 150
Cobalt	<0.025		0.500	0.521		mg/L		104	50 - 150
Iron	37	B	1.00	47.0	4	mg/L		998	50 - 150
Lead	0.011		0.100	0.113		mg/L		102	50 - 150
Manganese	0.14		0.500	0.719		mg/L		116	50 - 150
Nickel	0.036		0.500	0.545		mg/L		102	50 - 150
Selenium	<0.050		0.100	0.0975		mg/L		97	50 - 150
Silver	<0.025		0.0500	0.0510		mg/L		102	50 - 150
Zinc	0.22	J B	0.500	0.603		mg/L		77	50 - 150

Lab Sample ID: 500-109908-15 DU

Matrix: Solid
Analysis Batch: 330904

Client Sample ID: 2028V-05-B01 (5-10)

Prep Type: SPLP East
Prep Batch: 330734

Analyte	Sample	Sample	DU DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Barium	0.15	J	0.149	J	mg/L		1	20
Beryllium	<0.0040		<0.0040		mg/L		NC	20
Boron	0.11		0.107		mg/L		4	20
Cadmium	<0.0050		<0.0050		mg/L		NC	20
Chromium	0.042		0.0406		mg/L		4	20
Cobalt	<0.025		<0.025		mg/L		NC	20
Iron	37	B	36.7		mg/L		0.9	20
Lead	0.011		0.0103		mg/L		6	20
Manganese	0.14		0.137		mg/L		0.5	20
Nickel	0.036		0.0358		mg/L		0.7	20
Selenium	<0.050		<0.050		mg/L		NC	20
Silver	<0.025		<0.025		mg/L		NC	20
Zinc	0.22	J B	0.217	J	mg/L		0.1	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: LCS 500-330734/2-A

Matrix: Solid
Analysis Batch: 330905

Client Sample ID: Lab Control Sample

Prep Type: Total/NA
Prep Batch: 330734

Analyte	Spike	LCS LCS		Unit	D	%Rec	Limits
		Added	Result				
Antimony	0.500	0.456		mg/L		91	80 - 120
Thallium	0.100	0.103		mg/L		103	80 - 120

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QC Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

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

Lab Sample ID: LCS 500-330735/2-A
Matrix: Solid
Analysis Batch: 330905

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 330735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.500	0.473		mg/L		95	80 - 120
Thallium	0.100	0.108		mg/L		108	80 - 120

Lab Sample ID: LB 500-330591/1-B
Matrix: Solid
Analysis Batch: 330905

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 330735

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/12/16 14:17	04/13/16 12:02	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:17	04/13/16 12:02	1

Lab Sample ID: LB 500-330590/1-B
Matrix: Solid
Analysis Batch: 330905

Client Sample ID: Method Blank
Prep Type: SPLP East
Prep Batch: 330734

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/12/16 14:16	04/13/16 13:16	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:16	04/13/16 13:16	1

Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-330761/12-A
Matrix: Solid
Analysis Batch: 330899

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 330761

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/12/16 16:30	04/13/16 09:04	1

Lab Sample ID: LCS 500-330761/13-A
Matrix: Solid
Analysis Batch: 330899

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 330761

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00188		mg/L		94	80 - 120

Lab Sample ID: LB 500-330591/1-C
Matrix: Solid
Analysis Batch: 330899

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 330761

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/12/16 16:30	04/13/16 09:12	1

QC Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-330762/12-A
Matrix: Solid
Analysis Batch: 330899

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 330762

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/12/16 16:30	04/13/16 10:08	1

Lab Sample ID: LCS 500-330762/13-A
Matrix: Solid
Analysis Batch: 330899

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 330762

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00190		mg/L		95	80 - 120

Lab Sample ID: LB 500-330590/1-C
Matrix: Solid
Analysis Batch: 330899

Client Sample ID: Method Blank
Prep Type: SPLP East
Prep Batch: 330762

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/12/16 16:30	04/13/16 10:11	1

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-330334/12-A
Matrix: Solid
Analysis Batch: 330563

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 330334

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0088	mg/Kg		04/08/16 15:45	04/11/16 09:16	1

Lab Sample ID: LCS 500-330334/13-A
Matrix: Solid
Analysis Batch: 330563

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 330334

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.161		mg/Kg		96	80 - 120

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Client Sample ID: 2028V-05-B01 (0-5)

Lab Sample ID: 500-109908-14

Date Collected: 04/07/16 09:35

Matrix: Solid

Date Received: 04/07/16 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			330590	04/11/16 13:00	DDC	TAL CHI
SPLP East	Prep	3010A			330734	04/12/16 14:16	JNH	TAL CHI
SPLP East	Analysis	6010B		1	330904	04/13/16 12:14	PJ1	TAL CHI
TCLP	Leach	1311			330591	04/11/16 13:00	DDC	TAL CHI
TCLP	Prep	3010A			330735	04/12/16 14:17	JNH	TAL CHI
TCLP	Analysis	6010B		1	330903	04/13/16 12:41	PJ1	TAL CHI
SPLP East	Leach	1312			330590	04/11/16 13:00	DDC	TAL CHI
SPLP East	Prep	3010A			330734	04/12/16 14:16	JNH	TAL CHI
SPLP East	Analysis	6020A		1	330905	04/13/16 14:12	FXG	TAL CHI
TCLP	Leach	1311			330591	04/11/16 13:00	DDC	TAL CHI
TCLP	Prep	3010A			330735	04/12/16 14:17	JNH	TAL CHI
TCLP	Analysis	6020A		1	330905	04/13/16 12:59	FXG	TAL CHI
SPLP East	Leach	1312			330590	04/11/16 13:00	DDC	TAL CHI
SPLP East	Prep	7470A			330762	04/12/16 16:30	MJD	TAL CHI
SPLP East	Analysis	7470A		1	330899	04/13/16 10:50	MJD	TAL CHI
TCLP	Leach	1311			330591	04/11/16 13:00	DDC	TAL CHI
TCLP	Prep	7470A			330761	04/12/16 16:30	MJD	TAL CHI
TCLP	Analysis	7470A		1	330899	04/13/16 10:04	MJD	TAL CHI
Total/NA	Analysis	9045D		1	330840	(Start) 04/12/16 17:38 (End) 04/12/16 17:41	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	330556	04/11/16 10:29	LWN	TAL CHI

Client Sample ID: 2028V-05-B01 (0-5)

Lab Sample ID: 500-109908-14

Date Collected: 04/07/16 09:35

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 79.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			330407	04/08/16 08:45	WRE	TAL CHI
Total/NA	Analysis	8260B		1	330532	04/11/16 20:29	DJD	TAL CHI
Total/NA	Prep	3541			330505	04/11/16 07:04	STW	TAL CHI
Total/NA	Analysis	8270D		1	331025	04/14/16 16:58	AJD	TAL CHI
Total/NA	Prep	3050B			330360	04/08/16 15:37	JNH	TAL CHI
Total/NA	Analysis	6010B		1	330527	04/09/16 18:15	PJ1	TAL CHI
Total/NA	Prep	7471B			330334	04/08/16 15:45	MJD	TAL CHI
Total/NA	Analysis	7471B		1	330563	04/11/16 10:04	MJD	TAL CHI

Client Sample ID: 2028V-05-B01 (5-10)

Lab Sample ID: 500-109908-15

Date Collected: 04/07/16 09:37

Matrix: Solid

Date Received: 04/07/16 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			330590	04/11/16 13:00	DDC	TAL CHI
SPLP East	Prep	3010A			330734	04/12/16 14:16	JNH	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

Client Sample ID: 2028V-05-B01 (5-10)

Lab Sample ID: 500-109908-15

Date Collected: 04/07/16 09:37

Matrix: Solid

Date Received: 04/07/16 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Analysis	6010B		1	330904	04/13/16 12:20	PJ1	TAL CHI
TCLP	Leach	1311			330591	04/11/16 13:00	DDC	TAL CHI
TCLP	Prep	3010A			330735	04/12/16 14:17	JNH	TAL CHI
TCLP	Analysis	6010B		1	330903	04/13/16 12:46	PJ1	TAL CHI
SPLP East	Leach	1312			330590	04/11/16 13:00	DDC	TAL CHI
SPLP East	Prep	3010A			330734	04/12/16 14:16	JNH	TAL CHI
SPLP East	Analysis	6020A		1	330905	04/13/16 14:16	FXG	TAL CHI
TCLP	Leach	1311			330591	04/11/16 13:00	DDC	TAL CHI
TCLP	Prep	3010A			330735	04/12/16 14:17	JNH	TAL CHI
TCLP	Analysis	6020A		1	330905	04/13/16 13:02	FXG	TAL CHI
SPLP East	Leach	1312			330590	04/11/16 13:00	DDC	TAL CHI
SPLP East	Prep	7470A			330762	04/12/16 16:30	MJD	TAL CHI
SPLP East	Analysis	7470A		1	330899	04/13/16 10:52	MJD	TAL CHI
TCLP	Leach	1311			330591	04/11/16 13:00	DDC	TAL CHI
TCLP	Prep	7470A			330761	04/12/16 16:30	MJD	TAL CHI
TCLP	Analysis	7470A		1	330899	04/13/16 10:06	MJD	TAL CHI
Total/NA	Analysis	9045D		1	330840		SMO	TAL CHI
					(Start)	04/12/16 17:41		
					(End)	04/12/16 17:44		
Total/NA	Analysis	Moisture		1	330556	04/11/16 10:29	LWN	TAL CHI

Client Sample ID: 2028V-05-B01 (5-10)

Lab Sample ID: 500-109908-15

Date Collected: 04/07/16 09:37

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 82.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			330407	04/08/16 08:45	WRE	TAL CHI
Total/NA	Analysis	8260B		1	330532	04/11/16 20:54	DJD	TAL CHI
Total/NA	Prep	3541			330505	04/11/16 07:04	STW	TAL CHI
Total/NA	Analysis	8270D		1	330964	04/14/16 04:25	AJD	TAL CHI
Total/NA	Prep	3050B			330360	04/08/16 15:37	JNH	TAL CHI
Total/NA	Analysis	6010B		1	330527	04/09/16 18:28	PJ1	TAL CHI
Total/NA	Prep	7471B			330334	04/08/16 15:45	MJD	TAL CHI
Total/NA	Analysis	7471B		1	330563	04/11/16 10:06	MJD	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-2

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	04-30-17

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 #: 500-109908
 Chain of Custody Number: _____
 Page 1 of 1
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments			
F+E		1004341.0012.02								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		Project Location/State		Lab Project #		Lab PM							
W012 (US14)		Cook Co., IL		50012022		D. Wright							
Sampler		S.H.											
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOCs	SVOCs	Total TAL	Metals	TCLP/SLRP	Metals	PH/ % Solids
			Date	Time									
14		2028V-05-B01(0-5)	4/7/16	0935	2	5	X	X	X	X	X	X	
15		2038V-05-B01(5-10)	4/6/16	0937	2	5	X	X	X	X	X	X	
/													

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days 6 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>J. Huffer</u>	Company: <u>F+E</u>	Date: <u>4/7/16</u>	Time: <u>1513</u>	Received By: <u>P. Neal</u>	Company: <u>TA</u>	Date: <u>4/7/16</u>	Time: <u>1513</u>
Relinquished By: <u>P. Neal</u>	Company: <u>TA</u>	Date: <u>4/7/16</u>	Time: <u>16:50</u>	Received By: <u>Sherrill</u>	Company: <u>F+E</u>	Date: <u>4/8/16</u>	Time: <u>0715</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: 500-109908-2

Login Number: 109908

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	
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.	False	See NCM
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 3512 (US Route 14) Office Phone Number, if available: _____

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

570 - 576 Northwest Highway (ISGS #2028V-6)

City: Des Plaines State: IL Zip Code: 60016

County: Cook Township: Maine

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

Latitude: 42.051988° Longitude: -87.910312°

(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

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

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

Contact: Sam Mead

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

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

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

Contact: Sam Mead

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

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and 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 3512 (US Route 14)Latitude: 42.051988° Longitude: -87.910312°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 2028V-06-B01 was sampled within the construction zone adjacent to ISGS #2028V-6 (Commercial Building). Refer to PSI Report for ISGS #2028V-6 (Commercial Building) including Table 4-3, and Figure 4-1.

- 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 J109975-2.

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.

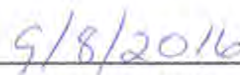
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Ecology and Environment, Inc.Street Address: 33 West Monroe 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-91-439-09; WorkOrder #12

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 #2028V-6 (Commercial Building)		Comparison Criteria				
	2028V-06-B01		MACs			TACO	
BORING	2028V-06-B01		Most Stringent	Within an MSA	Within Chicago	Residential	SCGIER
SAMPLE	2028V-06-B01 (0-4)	2028V-06-B01 (4-8)					
MATRIX	Soil	Soil					
DEPTH (feet)	0-4	4-8					
pH	8.3	8.26					
VOCs (mg/kg)							
Carbon tetrachloride	0.0033 J	ND U	0.07	--	--	0.3	--
SVOCs (mg/kg)							
Anthracene	0.011 J	ND U	12,000	--	--	23,000	--
Benzo[a]anthracene	0.065	0.0068 J	0.9	1.8	1.1	1.8	--
Benzo[a]pyrene	0.088	ND U	0.09	2.1	1.3	2.1	--
Benzo[b]fluoranthene	0.15	ND U	0.9	2.1	1.5	2.1	--
Benzo[g,h,i]perylene	0.034 J	ND U	--	--	--	--	--
Benzo[k]fluoranthene	0.067	ND U	9	--	--	9	--
Bis(2-ethylhexyl) phthalate	0.12 J	ND U	46	--	--	46	--
Chrysene	0.091	ND U	88	--	--	88	--
Fluoranthene	0.17	0.015 J	3,100	--	--	3,100	--
Phenanthrene	0.066	0.0069 J	--	--	--	--	--
Pyrene	0.17	0.012 J	2,300	--	--	2,300	--
Inorganics (mg/kg)							
Antimony	0.51 J	0.45 J	5	--	--	31	--
Arsenic	9	7.5	11.3	13	--	13	--
Barium	72	68	1,500	--	--	5,500	--
Beryllium	0.7	0.66	22	--	--	160	--
Boron	8.2	7.7	40	--	--	16,000	--
Cadmium	0.17	ND U	5.2	--	--	78	--
Calcium	22,000	32,000	--	--	--	--	--
Chromium	19	18	21	--	--	230	--
Cobalt	13	13	20	--	--	4,700	--
Copper	35	24	2,900	--	--	2,900	--
Iron	18,000 †m	20,000 †m	15,000	15,900	--	--	--
Lead	140 †	23	107	--	--	400	--
Magnesium	14,000	18,000	325,000	--	--	--	--
Manganese	410	370	630	636	--	1,600	--
Mercury	0.081	0.034	0.89	--	--	10	--
Nickel	32	30	100	--	--	1,600	--
Potassium	2,000	1,800	--	--	--	--	--
Selenium	0.68	0.49 J	1.3	--	--	390	--
Silver	0.16 J	ND U	4.4	--	--	390	--
Sodium	330	270	--	--	--	--	--
Thallium	ND U	ND U	2.6	--	--	6.3	--
Vanadium	23	24	550	--	--	550	--
Zinc	90	58	5,100	--	--	23,000	--
TCLP Metals (mg/L)							
Barium	0.45 J	0.41 J	--	--	--	--	2
Beryllium	ND U	ND U	--	--	--	--	0.004
Boron	0.052 J	ND U	--	--	--	--	2
Cadmium	0.003 J	0.0021 J	--	--	--	--	0.005
Chromium	ND U	ND U	--	--	--	--	0.1
Cobalt	ND U	ND U	--	--	--	--	1
Iron	0.27 J	ND U	--	--	--	--	5
Lead	ND U	ND U	--	--	--	--	0.0075
Manganese	0.46 L	0.17 L	--	--	--	--	0.15
Nickel	ND U	ND U	--	--	--	--	0.1
Thallium	ND U	ND U	--	--	--	--	0.002
Zinc	ND U	ND U	--	--	--	--	5
SPLP Metals (mg/L)							
Barium	0.38 J	0.45 J	--	--	--	--	2
Beryllium	0.0044 L	0.0056 L	--	--	--	--	0.004
Boron	0.15	0.18	--	--	--	--	2
Chromium	0.099	0.13 L	--	--	--	--	0.1
Cobalt	0.022 J	0.028	--	--	--	--	1
Iron	97 L	120 L	--	--	--	--	5
Lead	0.073 L	0.045 L	--	--	--	--	0.0075
Manganese	0.41 L	0.46 L	--	--	--	--	0.15
Nickel	0.089	0.12 L	--	--	--	--	0.1
Thallium	ND U	0.0028 L	--	--	--	--	0.002
Zinc	0.25 J	0.29 J	--	--	--	--	5

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: 500-109975-2
Client Project/Site: IDOT - Des Plaines - WO 012

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

Attn: Mr. Dean Tiebout



Authorized for release by:
4/19/2016 11:54:53 AM

Richard Wright, Senior Project Manager
(708)534-5200
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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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-2

Job ID: 500-109975-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-109975-2

Comments

No additional comments.

Receipt

The samples were received on 4/8/2016 4:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.6° C and 3.1° C.

GC/MS VOA

Method(s) 8260B: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for 330694 recovered outside control limits for the following analyte: Vinyl Acetate. This analyte was biased high in the LCS/LCSD 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

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

Metals

Method(s) 6010B: The following samples was diluted due to the abundance of target and non-target analytes: 2028V-06-B02 (0-4) (500-109975-11). Elevated reporting limits (RLs) are provided.

Method(s) 6010B: The method blank for preparation batch 500-330749 and analytical batch 500-330951 contained Lead 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 internal standard (Tb) was used to report the elements Lead and Thallium in batch 500-331123. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-2

Client Sample ID: 2028V-06-B01 (0-4)

Lab Sample ID: 500-109975-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon tetrachloride	0.0033	J	0.0045	0.00097	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.066		0.041	0.0058	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.011	J	0.041	0.0069	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.17		0.041	0.0077	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.17		0.041	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.065		0.041	0.0056	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.091		0.041	0.011	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.12	J	0.21	0.076	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.15		0.041	0.0090	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.067		0.041	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.088		0.041	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.034	J	0.041	0.013	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.51	J	1.2	0.25	mg/Kg	1	☼	6010B	Total/NA
Arsenic	9.0		0.59	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	72	B	0.59	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.70		0.24	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	8.2		3.0	0.42	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17		0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	22000	B	12	3.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	19	B	0.59	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	13		0.30	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	35		0.59	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	18000	B	12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	140		0.31	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	14000	B	5.9	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	410		0.59	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	32		0.59	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2000		30	4.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.68		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Silver	0.16	J	0.30	0.069	mg/Kg	1	☼	6010B	Total/NA
Sodium	330		59	7.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		0.30	0.087	mg/Kg	1	☼	6010B	Total/NA
Zinc	90		1.2	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	0.45	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.052	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0030	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Iron	0.27	J	0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.46		0.025	0.010	mg/L	1		6010B	TCLP
Barium	0.38	J	0.50	0.050	mg/L	1		6010B	SPLP East
Beryllium	0.0044		0.0040	0.0040	mg/L	1		6010B	SPLP East
Boron	0.15		0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.099		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.022	J	0.025	0.010	mg/L	1		6010B	SPLP East
Iron	97		0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.073		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.41		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.089		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.25	J	0.50	0.020	mg/L	1		6010B	SPLP East
Mercury	0.081		0.018	0.0097	mg/Kg	1	☼	7471B	Total/NA
pH	8.30		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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-2

Client Sample ID: 2028V-06-B01 (4-8)

Lab Sample ID: 500-109975-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.0069	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.015	J	0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.012	J	0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0068	J	0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.45	J	1.2	0.25	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.5		0.59	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	68	B	0.59	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.66		0.24	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	7.7		3.0	0.42	mg/Kg	1	☼	6010B	Total/NA
Calcium	32000	B	12	3.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	18	B	0.59	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	13		0.30	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	24		0.59	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	20000	B	12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	23		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	18000	B	5.9	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	370		0.59	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	30		0.59	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1800		30	4.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.49	J	0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	270		59	7.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	24		0.30	0.087	mg/Kg	1	☼	6010B	Total/NA
Zinc	58		1.2	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	0.41	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0021	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.17		0.025	0.010	mg/L	1		6010B	TCLP
Barium	0.45	J	0.50	0.050	mg/L	1		6010B	SPLP East
Beryllium	0.0056		0.0040	0.0040	mg/L	1		6010B	SPLP East
Boron	0.18		0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.13		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.028		0.025	0.010	mg/L	1		6010B	SPLP East
Iron	120		0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.045		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.46		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.12		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.29	J	0.50	0.020	mg/L	1		6010B	SPLP East
Thallium	0.0028		0.0020	0.0020	mg/L	1		6020A	SPLP East
Mercury	0.034		0.019	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.26		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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-109975-9	2028V-06-B01 (0-4)	Solid	04/08/16 09:00	04/08/16 16:30
500-109975-10	2028V-06-B01 (4-8)	Solid	04/08/16 09:05	04/08/16 16:30

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-2

Client Sample ID: 2028V-06-B01 (0-4)

Lab Sample ID: 500-109975-9

Date Collected: 04/08/16 09:00

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 79.1

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	☼	04/08/16 16:55	04/12/16 17:13	1
Benzene	<0.0045		0.0045	0.0010	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Bromodichloromethane	<0.0045		0.0045	0.00076	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Bromoform	<0.0045		0.0045	0.00092	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Carbon disulfide	<0.0045		0.0045	0.0017	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Carbon tetrachloride	0.0033	J	0.0045	0.00097	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Chloroethane	<0.0045		0.0045	0.0019	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Chloroform	<0.0045		0.0045	0.00088	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00092	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Dibromochloromethane	<0.0045		0.0045	0.00052	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
1,1-Dichloroethane	<0.0045		0.0045	0.00093	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
1,2-Dichloroethane	<0.0045		0.0045	0.00067	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
1,1-Dichloroethene	<0.0045		0.0045	0.0016	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Methylene Chloride	<0.0045		0.0045	0.0034	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00093	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Styrene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
1,1,2,2-Tetrachloroethane	<0.0045		0.0045	0.00072	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Tetrachloroethene	<0.0045		0.0045	0.00094	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0010	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00087	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Vinyl acetate	<0.0045	*	0.0045	0.0012	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1
Xylenes, Total	<0.0090		0.0090	0.0017	mg/Kg	☼	04/08/16 16:55	04/12/16 17:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 120	04/08/16 16:55	04/12/16 17:13	1
Dibromofluoromethane	117		75 - 120	04/08/16 16:55	04/12/16 17:13	1
1,2-Dichloroethane-d4 (Surr)	122		69 - 134	04/08/16 16:55	04/12/16 17:13	1
Toluene-d8 (Surr)	113		75 - 123	04/08/16 16:55	04/12/16 17:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.092	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
1,3-Dichlorobenzene	<0.21		0.21	0.047	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-2

Client Sample ID: 2028V-06-B01 (0-4)

Lab Sample ID: 500-109975-9

Date Collected: 04/08/16 09:00

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 79.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.050	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
2-Methylphenol	<0.21		0.21	0.067	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
N-Nitrosodi-n-propylamine	<0.084		0.084	0.051	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Hexachloroethane	<0.21		0.21	0.063	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
2-Chlorophenol	<0.21		0.21	0.071	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.045	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Isophorone	<0.21		0.21	0.047	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Naphthalene	<0.041		0.041	0.0064	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
2,4-Dichlorophenol	<0.41		0.41	0.099	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
4-Chloroaniline	<0.84		0.84	0.19	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
2,4,5-Trichlorophenol	<0.41		0.41	0.095	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Hexachlorocyclopentadiene	<0.84		0.84	0.24	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
2-Methylnaphthalene	<0.041		0.041	0.0076	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
2-Nitroaniline	<0.21		0.21	0.056	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
2-Chloronaphthalene	<0.21		0.21	0.046	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
2,6-Dinitrotoluene	<0.21		0.21	0.082	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
2-Nitrophenol	<0.41		0.41	0.098	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
2,4-Dinitrophenol	<0.84		0.84	0.73	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Acenaphthylene	<0.041		0.041	0.0055	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
2,4-Dinitrotoluene	<0.21		0.21	0.066	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Acenaphthene	<0.041		0.041	0.0075	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Dibenzofuran	<0.21		0.21	0.049	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
4-Nitrophenol	<0.84		0.84	0.39	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.055	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Hexachlorobenzene	<0.084		0.084	0.0096	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Pentachlorophenol	<0.84		0.84	0.67	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
N-Nitrosodiphenylamine	<0.21		0.21	0.049	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
4,6-Dinitro-2-methylphenol	<0.84		0.84	0.33	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Phenanthrene	0.066		0.041	0.0058	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Anthracene	0.011 J		0.041	0.0069	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Fluoranthene	0.17		0.041	0.0077	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Pyrene	0.17		0.041	0.0082	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Butyl benzyl phthalate	<0.21		0.21	0.079	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Benzo[a]anthracene	0.065		0.041	0.0056	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-2

Client Sample ID: 2028V-06-B01 (0-4)

Lab Sample ID: 500-109975-9

Date Collected: 04/08/16 09:00

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 79.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.091		0.041	0.011	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.058	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Bis(2-ethylhexyl) phthalate	0.12	J	0.21	0.076	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Di-n-octyl phthalate	<0.21		0.21	0.068	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Benzo[b]fluoranthene	0.15		0.041	0.0090	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Benzo[k]fluoranthene	0.067		0.041	0.012	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Benzo[a]pyrene	0.088		0.041	0.0080	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0080	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
Benzo[g,h,i]perylene	0.034	J	0.041	0.013	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1
3 & 4 Methylphenol	<0.21		0.21	0.069	mg/Kg	☼	04/15/16 16:58	04/19/16 01:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	79		40 - 130	04/15/16 16:58	04/19/16 01:02	1
Phenol-d5	64		36 - 123	04/15/16 16:58	04/19/16 01:02	1
Nitrobenzene-d5	74		33 - 124	04/15/16 16:58	04/19/16 01:02	1
2-Fluorobiphenyl	84		42 - 115	04/15/16 16:58	04/19/16 01:02	1
2,4,6-Tribromophenol	95		25 - 130	04/15/16 16:58	04/19/16 01:02	1
Terphenyl-d14	95		25 - 150	04/15/16 16:58	04/19/16 01:02	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.51	J	1.2	0.25	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Arsenic	9.0		0.59	0.27	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Barium	72	B	0.59	0.11	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Beryllium	0.70		0.24	0.051	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Boron	8.2		3.0	0.42	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Cadmium	0.17		0.12	0.034	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Calcium	22000	B	12	3.8	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Chromium	19	B	0.59	0.10	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Cobalt	13		0.30	0.067	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Copper	35		0.59	0.13	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Iron	18000	B	12	4.6	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Lead	140		0.31	0.15	mg/Kg	☼	04/13/16 16:04	04/14/16 14:49	1
Magnesium	14000	B	5.9	2.4	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Manganese	410		0.59	0.12	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Nickel	32		0.59	0.16	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Potassium	2000		30	4.8	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Selenium	0.68		0.59	0.29	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Silver	0.16	J	0.30	0.069	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Sodium	330		59	7.8	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Vanadium	23		0.30	0.087	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	1
Zinc	90		1.2	0.38	mg/Kg	☼	04/12/16 15:41	04/13/16 12:00	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		04/13/16 15:02	04/14/16 15:15	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/13/16 15:02	04/14/16 15:15	1
Boron	0.052	J	0.50	0.050	mg/L		04/13/16 15:02	04/14/16 15:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-2

Client Sample ID: 2028V-06-B01 (0-4)

Lab Sample ID: 500-109975-9

Date Collected: 04/08/16 09:00

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 79.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0030	J	0.0050	0.0020	mg/L		04/13/16 15:02	04/14/16 15:15	1
Chromium	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 15:15	1
Cobalt	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 15:15	1
Iron	0.27	J	0.40	0.20	mg/L		04/13/16 15:02	04/14/16 15:15	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/13/16 15:02	04/14/16 15:15	1
Manganese	0.46		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 15:15	1
Nickel	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 15:15	1
Selenium	<0.050		0.050	0.020	mg/L		04/13/16 15:02	04/14/16 15:15	1
Silver	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 15:15	1
Zinc	<0.50		0.50	0.020	mg/L		04/13/16 15:02	04/14/16 15:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.38	J	0.50	0.050	mg/L		04/13/16 15:00	04/14/16 15:30	1
Beryllium	0.0044		0.0040	0.0040	mg/L		04/13/16 15:00	04/14/16 15:30	1
Boron	0.15		0.10	0.050	mg/L		04/13/16 15:00	04/14/16 15:30	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/13/16 15:00	04/14/16 15:30	1
Chromium	0.099		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:30	1
Cobalt	0.022	J	0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:30	1
Iron	97		0.40	0.20	mg/L		04/13/16 15:00	04/14/16 15:30	1
Lead	0.073		0.0075	0.0075	mg/L		04/13/16 15:00	04/14/16 15:30	1
Manganese	0.41		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:30	1
Nickel	0.089		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:30	1
Selenium	<0.050		0.050	0.020	mg/L		04/13/16 15:00	04/14/16 15:30	1
Silver	<0.025		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:30	1
Zinc	0.25	J	0.50	0.020	mg/L		04/13/16 15:00	04/14/16 15:30	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		04/13/16 15:02	04/14/16 13:19	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/13/16 15:02	04/14/16 13:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/13/16 15:00	04/14/16 15:00	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/13/16 15:00	04/14/16 15:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/13/16 12:30	04/14/16 11:21	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		04/13/16 12:30	04/14/16 12:02	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.081		0.018	0.0097	mg/Kg	☼	04/12/16 15:15	04/13/16 09:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-2

Client Sample ID: 2028V-06-B01 (0-4)

Lab Sample ID: 500-109975-9

Date Collected: 04/08/16 09:00

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 79.1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.30		0.200	0.200	SU			04/14/16 12:32	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-2

Client Sample ID: 2028V-06-B01 (4-8)

Lab Sample ID: 500-109975-10

Date Collected: 04/08/16 09:05

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0036	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Benzene	<0.0046		0.0046	0.0010	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Bromodichloromethane	<0.0046		0.0046	0.00078	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Bromoform	<0.0046		0.0046	0.00094	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
2-Butanone (MEK)	<0.0046		0.0046	0.0016	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Carbon disulfide	<0.0046		0.0046	0.0017	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Carbon tetrachloride	<0.0046		0.0046	0.00099	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Chlorobenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Chloroethane	<0.0046		0.0046	0.0019	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Chloroform	<0.0046		0.0046	0.00090	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Chloromethane	<0.0046		0.0046	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
cis-1,2-Dichloroethene	<0.0046		0.0046	0.00094	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
cis-1,3-Dichloropropene	<0.0046		0.0046	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Dibromochloromethane	<0.0046		0.0046	0.00053	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
1,1-Dichloroethane	<0.0046		0.0046	0.00095	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
1,2-Dichloroethane	<0.0046		0.0046	0.00068	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
1,1-Dichloroethene	<0.0046		0.0046	0.0017	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
1,2-Dichloropropane	<0.0046		0.0046	0.0012	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
1,3-Dichloropropane, Total	<0.0046		0.0046	0.0013	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Ethylbenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Methylene Chloride	<0.0046		0.0046	0.0035	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.00095	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Methyl tert-butyl ether	<0.0046		0.0046	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Styrene	<0.0046		0.0046	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
1,1,2,2-Tetrachloroethane	<0.0046		0.0046	0.00073	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Tetrachloroethene	<0.0046		0.0046	0.00096	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Toluene	<0.0046		0.0046	0.0016	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
trans-1,2-Dichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
trans-1,3-Dichloropropene	<0.0046		0.0046	0.0013	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
1,1,1-Trichloroethane	<0.0046		0.0046	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
1,1,2-Trichloroethane	<0.0046		0.0046	0.00089	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Trichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Vinyl acetate	<0.0046 *		0.0046	0.0012	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Vinyl chloride	<0.0046		0.0046	0.0011	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1
Xylenes, Total	<0.0092		0.0092	0.0017	mg/Kg	☼	04/08/16 16:55	04/12/16 17:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 120	04/08/16 16:55	04/12/16 17:38	1
Dibromofluoromethane	110		75 - 120	04/08/16 16:55	04/12/16 17:38	1
1,2-Dichloroethane-d4 (Surr)	120		69 - 134	04/08/16 16:55	04/12/16 17:38	1
Toluene-d8 (Surr)	116		75 - 123	04/08/16 16:55	04/12/16 17:38	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	☼	04/15/16 16:58	04/18/16 11:29	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-2

Client Sample ID: 2028V-06-B01 (4-8)

Lab Sample ID: 500-109975-10

Date Collected: 04/08/16 09:05

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 80.9

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	☼	04/15/16 16:58	04/18/16 11:29	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Phenanthrene	0.0069	J	0.039	0.0055	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Fluoranthene	0.015	J	0.039	0.0073	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Pyrene	0.012	J	0.039	0.0078	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Benzo[a]anthracene	0.0068	J	0.039	0.0053	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-2

Client Sample ID: 2028V-06-B01 (4-8)

Lab Sample ID: 500-109975-10

Date Collected: 04/08/16 09:05

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	04/15/16 16:58	04/18/16 11:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	57		40 - 130	04/15/16 16:58	04/18/16 11:29	1
Phenol-d5	64		36 - 123	04/15/16 16:58	04/18/16 11:29	1
Nitrobenzene-d5	47		33 - 124	04/15/16 16:58	04/18/16 11:29	1
2-Fluorobiphenyl	68		42 - 115	04/15/16 16:58	04/18/16 11:29	1
2,4,6-Tribromophenol	83		25 - 130	04/15/16 16:58	04/18/16 11:29	1
Terphenyl-d14	82		25 - 150	04/15/16 16:58	04/18/16 11:29	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.45	J	1.2	0.25	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Arsenic	7.5		0.59	0.27	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Barium	68	B	0.59	0.11	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Beryllium	0.66		0.24	0.052	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Boron	7.7		3.0	0.42	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Cadmium	<0.12		0.12	0.034	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Calcium	32000	B	12	3.8	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Chromium	18	B	0.59	0.10	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Cobalt	13		0.30	0.067	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Copper	24		0.59	0.13	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Iron	20000	B	12	4.6	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Lead	23		0.28	0.14	mg/Kg	☼	04/13/16 16:04	04/14/16 14:54	1
Magnesium	18000	B	5.9	2.4	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Manganese	370		0.59	0.12	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Nickel	30		0.59	0.16	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Potassium	1800		30	4.9	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Selenium	0.49	J	0.59	0.29	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Sodium	270		59	7.9	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Vanadium	24		0.30	0.087	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	1
Zinc	58		1.2	0.38	mg/Kg	☼	04/12/16 15:41	04/13/16 12:05	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		04/13/16 15:02	04/14/16 15:21	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/13/16 15:02	04/14/16 15:21	1
Boron	<0.50		0.50	0.050	mg/L		04/13/16 15:02	04/14/16 15:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-2

Client Sample ID: 2028V-06-B01 (4-8)

Lab Sample ID: 500-109975-10

Date Collected: 04/08/16 09:05

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0021	J	0.0050	0.0020	mg/L		04/13/16 15:02	04/14/16 15:21	1
Chromium	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 15:21	1
Cobalt	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 15:21	1
Iron	<0.40		0.40	0.20	mg/L		04/13/16 15:02	04/14/16 15:21	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/13/16 15:02	04/14/16 15:21	1
Manganese	0.17		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 15:21	1
Nickel	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 15:21	1
Selenium	<0.050		0.050	0.020	mg/L		04/13/16 15:02	04/14/16 15:21	1
Silver	<0.025		0.025	0.010	mg/L		04/13/16 15:02	04/14/16 15:21	1
Zinc	<0.50		0.50	0.020	mg/L		04/13/16 15:02	04/14/16 15:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.45	J	0.50	0.050	mg/L		04/13/16 15:00	04/14/16 15:37	1
Beryllium	0.0056		0.0040	0.0040	mg/L		04/13/16 15:00	04/14/16 15:37	1
Boron	0.18		0.10	0.050	mg/L		04/13/16 15:00	04/14/16 15:37	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/13/16 15:00	04/14/16 15:37	1
Chromium	0.13		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:37	1
Cobalt	0.028		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:37	1
Iron	120		0.40	0.20	mg/L		04/13/16 15:00	04/14/16 15:37	1
Lead	0.045		0.0075	0.0075	mg/L		04/13/16 15:00	04/14/16 15:37	1
Manganese	0.46		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:37	1
Nickel	0.12		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:37	1
Selenium	<0.050		0.050	0.020	mg/L		04/13/16 15:00	04/14/16 15:37	1
Silver	<0.025		0.025	0.010	mg/L		04/13/16 15:00	04/14/16 15:37	1
Zinc	0.29	J	0.50	0.020	mg/L		04/13/16 15:00	04/14/16 15:37	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		04/13/16 15:02	04/14/16 13:23	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/13/16 15:02	04/14/16 13:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/13/16 15:00	04/14/16 15:03	1
Thallium	0.0028		0.0020	0.0020	mg/L		04/13/16 15:00	04/14/16 15:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/13/16 12:30	04/14/16 11:23	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		04/13/16 12:30	04/14/16 12:04	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.034		0.019	0.010	mg/Kg	☼	04/12/16 15:15	04/13/16 10:01	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-2

Client Sample ID: 2028V-06-B01 (4-8)

Lab Sample ID: 500-109975-10

Date Collected: 04/08/16 09:05

Matrix: Solid

Date Received: 04/08/16 16:30

Percent Solids: 80.9

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.26		0.200	0.200	SU			04/14/16 12:37	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-2

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
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.
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.
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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109975-2

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	04-30-17

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 #: 500-109975
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 26.31

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
E+E		1009341.0012.02									
Project Name		Project Location/State		Lab Project #		Lab PM					
W0012 (US-14)		Cook Co, IL				D. Wright					
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix					
9		2028V-06-B01(10-4)	4/8/16	0900	2 5	VOC	X	X	X	X	
10		2028V-06-B01(4-8)	4/8/16	0905	2 5	SVOC	X	X	X	X	
11		2028V-06-B02(10-4)	4/8/16	0935	2 5	Total TA Metals	X	X	X	X	
12		2028V-06-B02(4-8)	4/8/16	0940	2 5	TCP/SP/PLP Metals	X	X	X	X	
						PH/9 Solids	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)

Requested Due Date: _____ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days ___ 6 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>4/8/16</u> Time: <u>1530</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>4-8-16</u> Time: <u>1530</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>4/8/16</u> Time: <u>1630</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>4/8/16</u> Time: <u>1630</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: 500-109975-2

Login Number: 109975

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	2.6,3.1
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 3512 (US Route 14) Office Phone Number, if available: _____

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

600 East Northwest Highway (ISGS #2028V-20)

City: Des Plaines State: IL Zip Code: 60016

County: Cook Township: Maine

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

Latitude: 42.051754° Longitude: -87.909710°
(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: 0310635564 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 3512 (US Route 14)

Latitude: 42.051754° Longitude: -87.909710°

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 2028V-20-B02, -B03, -B04, -B05, -B06 were sampled within the construction zone adjacent to ISGS #2028V-20 (Commercial Building). Refer to PSI Report for ISGS #2028V-20 (Commercial Building) including Table 4-3, and Figure 4-1.

- 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 J109908-1.

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:

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

9/8/2016
 Date:



Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-439-09; WorkOrder #12

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-91-439-09; WorkOrder #12
CONTAMINANTS OF CONCERN

SITE	ISGS #2028V-20 (Commercial Building)						Comparison Criteria				
	2028V-20-B02		2028V-20-B03		2028V-20-B04		MACs			TACO	
BORING	2028V-20-B02 (0-5)	2028V-20-B02 (5-10)	2028V-20-B03 (0-5)	2028V-20-B03 (5-10)	2028V-20-B04 (0-8)	2028V-20-B04 (8-15)	Most Stringent	Within an MSA	Within Chicago	Residential	SCGIER
SAMPLE	Soil	Soil	Soil	Soil	Soil	Soil					
MATRIX	0-5	5-10	0-5	5-10	0-8	8-15					
DEPTH (feet)	8.48	8.51	8.43	8.63	8.25	8.07					
pH											
VOCs (mg/kg)											
2-Butanone (MEK)	ND U	ND U	ND U	ND U	0.023	0.0074	--	--	--	--	--
Acetone	0.032	0.021	ND U	ND U	0.11	0.06	25	--	--	70,000	--
SVOCs (mg/kg)											
2-Methylnaphthalene	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	--
Acenaphthene	ND U	ND U	0.037 J	ND U	0.012 J	ND U	570	--	--	4,700	--
Acenaphthylene	ND U	ND U	0.0071 J	ND U	ND U	ND U	--	--	--	--	--
Anthracene	ND U	ND U	0.088	ND U	0.039	ND U	12,000	--	--	23,000	--
Benzo[a]anthracene	0.0065 J	ND U	0.65	0.0062 J	0.27	ND U	0.9	1.8	1.1	1.8	--
Benzo[a]pyrene	ND U	ND U	0.84 †	ND U	0.28 †	ND U	0.09	2.1	1.3	2.1	--
Benzo[b]fluoranthene	ND U	ND U	1.3 †	ND U	0.44	ND U	0.9	2.1	1.5	2.1	--
Benzo[g,h,i]perylene	ND U	ND U	0.44	ND U	0.2	ND U	--	--	--	--	--
Benzo[k]fluoranthene	ND U	ND U	0.55	ND U	0.16	ND U	9	--	--	9	--
Bis(2-ethylhexyl) phthalate	ND U	ND U	ND U	ND U	0.079 J	ND U	46	--	--	46	--
Chrysene	ND U	ND U	0.88	ND U	0.29	ND U	88	--	--	88	--
Dibenzo[a,h]anthracene	ND U	ND U	0.11 †	ND U	0.047	ND U	0.09	0.42	0.2	0.42	--
Fluoranthene	0.012 J	ND U	1.4	0.011 J	0.54	ND U	3,100	--	--	3,100	--
Fluorene	ND U	ND U	0.029 J	ND U	0.012 J	ND U	560	--	--	3,100	--
Indeno[1,2,3-cd]pyrene	ND U	ND U	0.48	ND U	0.2	ND U	0.9	1.6	0.9	1.6	--
Naphthalene	0.011 J	0.018 J	ND U	0.0095 J	0.012 J	ND U	1.8	--	--	170	--
Phenanthrene	0.0079 J	ND U	0.63	0.0074 J	0.15	0.0066 J	--	--	--	--	--
Pyrene	0.011 J	ND U	1.6	0.0093 J	0.48	0.0088 J	2,300	--	--	2,300	--
Inorganics (mg/kg)											
Antimony	0.35 J	0.46 J	0.83 J	0.35 J	0.5 J	0.41 J	5	--	--	31	--
Arsenic	6.7	10	8.2	7.5	6.1	6.6	11.3	13	--	13	--
Barium	65	57	70	75	74	66	1,500	--	--	5,500	--
Beryllium	0.67	0.65	0.67	0.84	0.75	0.68	22	--	--	160	--
Boron	5.9	9.4	7.3	6.1	6.3	8.1	40	--	--	16,000	--
Cadmium	ND U	ND U	0.36	ND U	ND U	ND U	5.2	--	--	78	--
Calcium	20,000	75,000	21,000	15,000	11,000	18,000	--	--	--	--	--
Chromium	15	16	18	19	17	18	21	--	--	230	--
Cobalt	10	14	10	13	11	14	20	--	--	4,700	--
Copper	19	24	40	23	19	19	2,900	--	--	2,900	--
Iron	18,000 †m	20,000 †m	18,000 †m	22,000 †m	19,000 †m	21,000 †m	15,000	15,900	--	--	--
Lead	15	16	90	16	18	15	107	--	--	400	--
Magnesium	12,000	26,000	13,000	11,000	5,500	12,000	325,000	--	--	--	--
Manganese	370	520	370	450	340	570	630	636	--	1,600	--
Mercury	0.035	0.035	0.049	0.037	0.039	0.051	0.89	--	--	10	--
Nickel	23	34	25	39	25	31	100	--	--	1,600	--
Potassium	1,500	2,000	1,600	1,800	1,600	1,900	--	--	--	--	--
Selenium	0.36 J	0.65	0.51 J	0.41 J	0.53 J	0.52 J	1.3	--	--	390	--
Sodium	360	330	190	220	1,900	1,300	--	--	--	--	--
Thallium	ND U	ND U	ND U	0.41 J	ND U	ND U	2.6	--	--	6.3	--
Vanadium	22	21	22	24	25	24	550	--	--	550	--
Zinc	57	58	100	67	58	57	5,100	--	--	23,000	--
TCLP Metals (mg/L)											
Barium	0.63	0.63	0.42 J	0.44 J	0.53	0.59	--	--	--	--	2
Beryllium	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.004
Boron	0.086 J	ND U	0.071 J	0.055 J	0.11 J	0.078 J	--	--	--	--	2
Chromium	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.1
Cobalt	0.019 J	0.016 J	ND U	ND U	0.017 J	0.015 J	--	--	--	--	1
Iron	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	5
Lead	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.0075
Manganese	7.5 L	6.1 L	0.12	0.13	5 L	6.6 L	--	--	--	--	0.15
Nickel	0.014 J	0.015 J	ND U	ND U	0.013 J	0.017 J	--	--	--	--	0.1
Thallium	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.002
Zinc	0.24 J	ND U	ND U	ND U	ND U	ND U	--	--	--	--	5
SPLP Metals (mg/L)											
Barium	0.28 J	0.06 J	0.23 J	0.39 J	0.75	0.51	--	--	--	--	2
Beryllium	ND U	ND U	ND U	0.0046 L	0.0077 L	0.0059 L	--	--	--	--	0.004
Boron	0.13	0.077 J	0.089 J	0.14	0.25	0.18	--	--	--	--	2
Chromium	0.075	0.01 J	0.06	0.1	0.19 L	0.14 L	--	--	--	--	0.1
Cobalt	0.027	ND U	0.014 J	0.025	0.057	0.051	--	--	--	--	1
Iron	77 L	8.4 L	61 L	100 L	180 L	130 L	--	--	--	--	5
Lead	0.039 L	ND U	0.054 L	0.043 L	0.12 L	0.063 L	--	--	--	--	0.0075
Manganese	0.57 L	0.16 L	0.28 L	0.45 L	1.4 L	1.1 L	--	--	--	--	0.15
Nickel	0.081	0.01 J	0.055	0.099	0.17 L	0.15 L	--	--	--	--	0.1
Thallium	ND U	ND U	ND U	0.0024 L	0.0031 L	0.0021 L	--	--	--	--	0.002

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-439-09; WorkOrder #12
CONTAMINANTS OF CONCERN

SITE	ISGS #2028V-20 (Commercial Building)					Comparison Criteria					
	2028V-20-B05		2028V-20-B06			MACs			TACO		
BORING	2028V-20-B05 (0-8)		2028V-20-B05 (8-15)	2028V-20-B06 (0-8)	2028V-20-B06 (8-15)	2028V-20-B06 (8-15)D	Most Stringent	Within an MSA	Within Chicago	Residential	SCGIER
SAMPLE MATRIX	Soil	Soil	Soil	Soil	Soil	Soil					
DEPTH (feet)	0-8	8-15	0-8	8-15	8-15						
pH	8.28	8.17	8.04	8.11	8.26						
VOcs (mg/kg)											
2-Butanone (MEK)	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	--
Acetone	ND U	ND U	ND U	ND U	ND U	ND U	25	--	--	70,000	--
SVOcs (mg/kg)											
2-Methylnaphthalene	ND U	ND U	ND U	0.0076 J	0.008 J	0.008 J	--	--	--	--	--
Acenaphthene	0.013 J	ND U	ND U	ND U	ND U	ND U	570	--	--	4,700	--
Acenaphthylene	0.0063 J	ND U	ND U	ND U	ND U	ND U	--	--	--	--	--
Anthracene	0.024 J	ND U	0.012 J	ND U	ND U	ND U	12,000	--	--	23,000	--
Benzo[a]anthracene	0.11	ND U	0.11	0.0051 J	0.0054 J	0.0054 J	0.9	1.8	1.1	1.8	--
Benzo[a]pyrene	0.13 †	ND U	0.16 †	ND U	ND U	ND U	0.09	2.1	1.3	2.1	--
Benzo[b]fluoranthene	0.2	0.011 J	0.29	0.01 J	0.011 J	0.011 J	0.9	2.1	1.5	2.1	--
Benzo[g,h,i]perylene	0.093	0.012 J	0.15	0.014 J	0.014 J	0.014 J	--	--	--	--	--
Benzo[k]fluoranthene	0.075	ND U	0.12	ND U	ND U	ND U	9	--	--	9	--
Bis(2-ethylhexyl) phthalate	ND U	ND U	0.1 J	ND U	ND U	ND U	46	--	--	46	--
Chrysene	0.14	0.017 J	0.2	0.018 J	0.019 J	0.019 J	88	--	--	88	--
Dibenzo[a,h]anthracene	0.019 J	ND U	ND U	ND U	ND U	ND U	0.09	0.42	0.2	0.42	--
Fluoranthene	0.24	ND U	0.28	0.0079 J	0.011 J	0.011 J	3,100	--	--	3,100	--
Fluorene	0.012 J	ND U	ND U	ND U	ND U	ND U	560	--	--	3,100	--
Indeno[1,2,3-cd]pyrene	0.091	ND U	0.14	ND U	ND U	ND U	0.9	1.6	0.9	1.6	--
Naphthalene	0.016 J	0.012 J	0.0069 J	0.0088 J	0.012 J	0.012 J	1.8	--	--	170	--
Phenanthrene	0.12	0.01 J	0.063	0.024 J	0.029 J	0.029 J	--	--	--	--	--
Pyrene	0.22	0.014 J	0.23	0.015 J	0.017 J	0.017 J	2,300	--	--	2,300	--
Inorganics (mg/kg)											
Antimony	0.82 J	0.47 J	0.32 J	0.49 J	0.43 J	0.43 J	5	--	--	31	--
Arsenic	7.6	10	6.5	12 †	8.2	8.2	11.3	13	--	13	--
Barium	75	27	51	46	39	39	1,500	--	--	5,500	--
Beryllium	0.7	0.51	0.68	0.58	0.6	0.6	22	--	--	160	--
Boron	5.8	8.6	7.2	11	11	11	40	--	--	16,000	--
Cadmium	ND U	ND U	ND U	ND U	ND U	ND U	5.2	--	--	78	--
Calcium	47,000	64,000	16,000	75,000	73,000	73,000	--	--	--	--	--
Chromium	15	12	16	15	15	15	21	--	--	230	--
Cobalt	11	12	9.7	12	12	12	20	--	--	4,700	--
Copper	22	24	17	18	22	22	2,900	--	--	2,900	--
Iron	18,000 †m	17,000 †m	19,000 †m	20,000 †m	19,000 †m	19,000 †m	15,000	15,900	--	--	--
Lead	40	14	17	11	13	13	107	--	--	400	--
Magnesium	11,000	27,000	10,000	24,000	26,000	26,000	325,000	--	--	--	--
Manganese	440	320	200	400	320	320	630	636	--	1,600	--
Mercury	0.049	0.026	0.037	0.023	0.026	0.026	0.89	--	--	10	--
Nickel	27	30	28	35	33	33	100	--	--	1,600	--
Potassium	1,600	1,800	1,800	2,200	2,400	2,400	--	--	--	--	--
Selenium	0.63	0.51 J	0.33 J	ND U	ND U	ND U	1.3	--	--	390	--
Sodium	270	290	270	330	320	320	--	--	--	--	--
Thallium	ND U	0.26 J	ND U	ND U	ND U	ND U	2.6	--	--	6.3	--
Vanadium	20	15	22	18	18	18	550	--	--	550	--
Zinc	73	56	54	52	74	74	5,100	--	--	23,000	--
TCLP Metals (mg/L)											
Barium	0.34 J	0.37 J	0.36 J	0.59	0.59	0.59	--	--	--	--	2
Beryllium	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.004
Boron	0.076 J	0.053 J	0.075 J	0.064 J	0.1 J	0.1 J	--	--	--	--	2
Chromium	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.1
Cobalt	ND U	0.016 J	ND U	0.013 J	0.013 J	0.013 J	--	--	--	--	1
Iron	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	5
Lead	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.0075
Manganese	0.17 L	2.1 L	0.067	1.9 L	1.9 L	1.9 L	--	--	--	--	0.15
Nickel	ND U	0.021 J	ND U	0.028	0.024 J	0.024 J	--	--	--	--	0.1
Thallium	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.002
Zinc	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	5
SPLP Metals (mg/L)											
Barium	0.19 J	0.17 J	0.27 J	0.25 J	0.32 J	0.32 J	--	--	--	--	2
Beryllium	ND U	ND U	ND U	ND U	0.0045 L	0.0045 L	--	--	--	--	0.004
Boron	0.082 J	0.12	0.16	0.19	0.21	0.21	--	--	--	--	2
Chromium	0.051	0.059	0.085	0.076	0.1	0.1	--	--	--	--	0.1
Cobalt	0.011 J	0.021 J	0.019 J	0.027	0.038	0.038	--	--	--	--	1
Iron	48 L	45 L	76 L	60 L	78 L	78 L	--	--	--	--	5
Lead	0.022 L	0.019 L	0.059 L	0.024 L	0.031 L	0.031 L	--	--	--	--	0.0075
Manganese	0.2 L	0.34 L	0.33 L	0.51 L	0.73 L	0.73 L	--	--	--	--	0.15
Nickel	0.046	0.064	0.079	0.078	0.1	0.1	--	--	--	--	0.1
Thallium	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.002

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: 500-109908-1
Client Project/Site: IDOT - Des Plaines - WO 012

For:
Ecology and Environment, Inc.
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Chicago, Illinois 60603

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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Job ID: 500-109908-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-109908-1

Comments

No additional comments.

Receipt

The samples were received on 4/7/2016 4:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.9° C and 3.3° C.

Receipt Exceptions

Received 2 16oz bottles with the same ID of 2028V-20-B04 (8-15) and no sample times. The 16 oz jars were compared to the VOC vials to determine their ids.

GC/MS VOA

Method(s) 8260B: The following sample was diluted due to the abundance of non-target analytes: 2028V-20-B01 (8-15) (500-109908-2). Elevated reporting limits (RLs) are 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 laboratory control sample (LCS) for preparation batch 500-330505 and analytical batch 500-330872 recovered outside control limits for several analytes. These analytes were biased high in the LCS and were not detected above the reporting limit in the associated samples; therefore, the data have been reported.

Method(s) 8270D: The following sample contained one acid surrogate and/or one base/neutral surrogate outside acceptance limits: 2028V-20-B01 (8-15) (500-109908-2), 2028V-20-B04 (0-8) (500-109908-3), 2028V-20-B05 (0-8) (500-109908-5), 2028V-20-B05 (8-15) (500-109908-6), 2028V-20-B06 (0-8) (500-109908-7), 2028V-20-B06 (8-15) (500-109908-8), 2028V-20-B06 (8-15)D (500-109908-9), 2028V-20-B02 (0-5) (500-109908-10), 2028V-20-B03 (5-10) (500-109908-13), (LCS 500-330505/2-A), (MB 500-330505/1-A), (500-109908-E-1-J MS) and (500-109908-E-1-K 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.

Method(s) 8270D: The laboratory control sample (LCS) for preparation batch 500-331493 and analytical batch 500-331481 recovered outside control limits for the following analyte: Carbazole. This analyte was biased high in the LCS 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.

Metals

Method(s) 6020A: The internal standard (Tb) was used to report the element Thallium (Tl) in batch 500-330905.

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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

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Client Sample ID: 2028V-20-B04 (0-8)

Lab Sample ID: 500-109908-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	0.11		0.023	0.0044	mg/Kg	1	☒		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B04 (0-8) (Continued)

Lab Sample ID: 500-109908-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
2-Butanone (MEK)	0.023		0.0057	0.0020	mg/Kg	1	☼	☼	8260B	Total/NA
Naphthalene	0.012	J	0.039	0.0061	mg/Kg	1	☼	☼	8270D	Total/NA
Acenaphthene	0.012	J *	0.039	0.0071	mg/Kg	1	☼	☼	8270D	Total/NA
Fluorene	0.012	J *	0.039	0.0055	mg/Kg	1	☼	☼	8270D	Total/NA
Phenanthrene	0.15		0.039	0.0055	mg/Kg	1	☼	☼	8270D	Total/NA
Anthracene	0.039		0.039	0.0066	mg/Kg	1	☼	☼	8270D	Total/NA
Fluoranthene	0.54		0.039	0.0073	mg/Kg	1	☼	☼	8270D	Total/NA
Pyrene	0.48		0.039	0.0078	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[a]anthracene	0.27		0.039	0.0053	mg/Kg	1	☼	☼	8270D	Total/NA
Chrysene	0.29		0.039	0.011	mg/Kg	1	☼	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.079	J	0.20	0.072	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.44		0.039	0.0085	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.16		0.039	0.012	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[a]pyrene	0.28		0.039	0.0076	mg/Kg	1	☼	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.20		0.039	0.010	mg/Kg	1	☼	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.047		0.039	0.0076	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.20		0.039	0.013	mg/Kg	1	☼	☼	8270D	Total/NA
Antimony	0.50	J	1.1	0.23	mg/Kg	1	☼	☼	6010B	Total/NA
Arsenic	6.1		0.56	0.26	mg/Kg	1	☼	☼	6010B	Total/NA
Barium	74		0.56	0.10	mg/Kg	1	☼	☼	6010B	Total/NA
Beryllium	0.75		0.23	0.049	mg/Kg	1	☼	☼	6010B	Total/NA
Boron	6.3		2.8	0.39	mg/Kg	1	☼	☼	6010B	Total/NA
Calcium	11000	B	11	3.6	mg/Kg	1	☼	☼	6010B	Total/NA
Chromium	17	B	0.56	0.097	mg/Kg	1	☼	☼	6010B	Total/NA
Cobalt	11		0.28	0.064	mg/Kg	1	☼	☼	6010B	Total/NA
Copper	19		0.56	0.12	mg/Kg	1	☼	☼	6010B	Total/NA
Iron	19000		11	4.3	mg/Kg	1	☼	☼	6010B	Total/NA
Lead	18		0.28	0.14	mg/Kg	1	☼	☼	6010B	Total/NA
Magnesium	5500		5.6	2.3	mg/Kg	1	☼	☼	6010B	Total/NA
Manganese	340	B	0.56	0.11	mg/Kg	1	☼	☼	6010B	Total/NA
Nickel	25		0.56	0.15	mg/Kg	1	☼	☼	6010B	Total/NA
Potassium	1600		28	4.6	mg/Kg	1	☼	☼	6010B	Total/NA
Selenium	0.53	J	0.56	0.28	mg/Kg	1	☼	☼	6010B	Total/NA
Sodium	1900		56	7.4	mg/Kg	1	☼	☼	6010B	Total/NA
Vanadium	25		0.28	0.082	mg/Kg	1	☼	☼	6010B	Total/NA
Zinc	58		1.1	0.36	mg/Kg	1	☼	☼	6010B	Total/NA
Barium	0.53		0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.11	J	0.50	0.050	mg/L	1			6010B	TCLP
Cobalt	0.017	J	0.025	0.010	mg/L	1			6010B	TCLP
Manganese	5.0		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.013	J	0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.028	J B	0.50	0.020	mg/L	1			6010B	TCLP
Barium	0.75		0.50	0.050	mg/L	1			6010B	SPLP East
Beryllium	0.0077		0.0040	0.0040	mg/L	1			6010B	SPLP East
Boron	0.25		0.10	0.050	mg/L	1			6010B	SPLP East
Chromium	0.19		0.025	0.010	mg/L	1			6010B	SPLP East
Cobalt	0.057		0.025	0.010	mg/L	1			6010B	SPLP East
Iron	180	B	0.40	0.20	mg/L	1			6010B	SPLP East
Lead	0.12		0.0075	0.0075	mg/L	1			6010B	SPLP East
Manganese	1.4		0.025	0.010	mg/L	1			6010B	SPLP East

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B04 (0-8) (Continued)

Lab Sample ID: 500-109908-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	0.17		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.41	J B	0.50	0.020	mg/L	1		6010B	SPLP East
Thallium	0.0031		0.0020	0.0020	mg/L	1		6020A	SPLP East
Mercury	0.039		0.020	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.25		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 2028V-20-B04 (8-15)

Lab Sample ID: 500-109908-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.060		0.017	0.0032	mg/Kg	1	☼	8260B	Total/NA
2-Butanone (MEK)	0.0074		0.0042	0.0015	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.0066	J	0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.0088	J	0.036	0.0073	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.41	J	1.1	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	6.6		0.56	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	66		0.56	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.68		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	8.1		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Calcium	18000	B	11	3.6	mg/Kg	1	☼	6010B	Total/NA
Chromium	18	B	0.56	0.096	mg/Kg	1	☼	6010B	Total/NA
Cobalt	14		0.28	0.063	mg/Kg	1	☼	6010B	Total/NA
Copper	19		0.56	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	21000		11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	15		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	12000		5.6	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	570	B	0.56	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	31		0.56	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1900		28	4.5	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.52	J	0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Sodium	1300		56	7.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	24		0.28	0.081	mg/Kg	1	☼	6010B	Total/NA
Zinc	57		1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.59		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.078	J	0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	6.6		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.017	J	0.025	0.010	mg/L	1		6010B	TCLP
Barium	0.51		0.50	0.050	mg/L	1		6010B	SPLP East
Beryllium	0.0059		0.0040	0.0040	mg/L	1		6010B	SPLP East
Boron	0.18		0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.14		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.051		0.025	0.010	mg/L	1		6010B	SPLP East
Iron	130	B	0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.063		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	1.1		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.15		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.29	J B	0.50	0.020	mg/L	1		6010B	SPLP East
Thallium	0.0021		0.0020	0.0020	mg/L	1		6020A	SPLP East
Mercury	0.051		0.018	0.0094	mg/Kg	1	☼	7471B	Total/NA
pH	8.07		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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B05 (0-8)

Lab Sample ID: 500-109908-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.016	J	0.038	0.0058	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.0063	J*	0.038	0.0050	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.013	J*	0.038	0.0068	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.012	J*	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.12		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	0.22		0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.11		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.14		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.20		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.075		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.13		0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.091		0.038	0.0098	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.019	J	0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.093		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.82	J	1.1	0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.6		0.57	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	75		0.57	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.70		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	5.8		2.9	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.23	B	0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	47000	B	110	37	mg/Kg	10	☼	6010B	Total/NA
Chromium	15	B	0.57	0.098	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.29	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	22		0.57	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	18000		11	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	40		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	11000		5.7	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	440	B	0.57	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	27		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1600		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.63		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Sodium	270		57	7.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.29	0.084	mg/Kg	1	☼	6010B	Total/NA
Zinc	73		1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.34	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.076	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.17		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.078	J B	0.50	0.020	mg/L	1		6010B	TCLP
Barium	0.19	J	0.50	0.050	mg/L	1		6010B	SPLP East
Boron	0.082	J	0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.051		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.011	J	0.025	0.010	mg/L	1		6010B	SPLP East
Iron	48	B	0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.022		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.20		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.046		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.12	J B	0.50	0.020	mg/L	1		6010B	SPLP East
Mercury	0.049		0.017	0.0092	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B05 (0-8) (Continued)

Lab Sample ID: 500-109908-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	8.28		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 2028V-20-B05 (8-15)

Lab Sample ID: 500-109908-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.012	J	0.035	0.0054	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.010	J	0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.014	J	0.035	0.0070	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.017	J	0.035	0.0096	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.011	J	0.035	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.012	J	0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.47	J	1.0	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	10		0.52	0.24	mg/Kg	1	☼	6010B	Total/NA
Barium	27		0.52	0.095	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.51		0.21	0.045	mg/Kg	1	☼	6010B	Total/NA
Boron	8.6		2.6	0.36	mg/Kg	1	☼	6010B	Total/NA
Calcium	64000	B	100	34	mg/Kg	10	☼	6010B	Total/NA
Chromium	12	B	0.52	0.089	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.26	0.059	mg/Kg	1	☼	6010B	Total/NA
Copper	24		0.52	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	17000		10	4.0	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.26	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	27000		5.2	2.1	mg/Kg	1	☼	6010B	Total/NA
Manganese	320	B	0.52	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	30		0.52	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	1800		26	4.2	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.51	J	0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Sodium	290		52	6.9	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.26	J	0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.26	0.076	mg/Kg	1	☼	6010B	Total/NA
Zinc	56		1.0	0.33	mg/Kg	1	☼	6010B	Total/NA
Barium	0.37	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.053	J	0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.016	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.1		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.021	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.027	J B	0.50	0.020	mg/L	1		6010B	TCLP
Barium	0.17	J	0.50	0.050	mg/L	1		6010B	SPLP East
Boron	0.12		0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.059		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.021	J	0.025	0.010	mg/L	1		6010B	SPLP East
Iron	45	B	0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.019		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.34		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.064		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.12	J B	0.50	0.020	mg/L	1		6010B	SPLP East
Mercury	0.026		0.017	0.0090	mg/Kg	1	☼	7471B	Total/NA
pH	8.17		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 2028V-20-B06 (0-8)

Lab Sample ID: 500-109908-7

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B06 (0-8) (Continued)

Lab Sample ID: 500-109908-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Naphthalene	0.0069	J	0.037	0.0057	mg/Kg	1	☼	☼	8270D	Total/NA
Phenanthrene	0.063		0.037	0.0052	mg/Kg	1	☼	☼	8270D	Total/NA
Anthracene	0.012	J	0.037	0.0062	mg/Kg	1	☼	☼	8270D	Total/NA
Fluoranthene	0.28		0.037	0.0069	mg/Kg	1	☼	☼	8270D	Total/NA
Pyrene	0.23		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	0.20		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	0.29		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	0.16		0.037	0.0072	mg/Kg	1	☼	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.14		0.037	0.0097	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.15		0.037	0.012	mg/Kg	1	☼	☼	8270D	Total/NA
Antimony	0.32	J	1.1	0.22	mg/Kg	1	☼	☼	6010B	Total/NA
Arsenic	6.5		0.54	0.25	mg/Kg	1	☼	☼	6010B	Total/NA
Barium	51		0.54	0.098	mg/Kg	1	☼	☼	6010B	Total/NA
Beryllium	0.68		0.21	0.047	mg/Kg	1	☼	☼	6010B	Total/NA
Boron	7.2		2.7	0.38	mg/Kg	1	☼	☼	6010B	Total/NA
Calcium	16000	B	11	3.5	mg/Kg	1	☼	☼	6010B	Total/NA
Chromium	16	B	0.54	0.092	mg/Kg	1	☼	☼	6010B	Total/NA
Cobalt	9.7		0.27	0.061	mg/Kg	1	☼	☼	6010B	Total/NA
Copper	17		0.54	0.12	mg/Kg	1	☼	☼	6010B	Total/NA
Iron	19000		11	4.1	mg/Kg	1	☼	☼	6010B	Total/NA
Lead	17		0.27	0.13	mg/Kg	1	☼	☼	6010B	Total/NA
Magnesium	10000		5.4	2.2	mg/Kg	1	☼	☼	6010B	Total/NA
Manganese	200	B	0.54	0.11	mg/Kg	1	☼	☼	6010B	Total/NA
Nickel	28		0.54	0.15	mg/Kg	1	☼	☼	6010B	Total/NA
Potassium	1800		27	4.4	mg/Kg	1	☼	☼	6010B	Total/NA
Selenium	0.33	J	0.54	0.27	mg/Kg	1	☼	☼	6010B	Total/NA
Sodium	270		54	7.1	mg/Kg	1	☼	☼	6010B	Total/NA
Vanadium	22		0.27	0.078	mg/Kg	1	☼	☼	6010B	Total/NA
Zinc	54		1.1	0.34	mg/Kg	1	☼	☼	6010B	Total/NA
Barium	0.36	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.075	J	0.50	0.050	mg/L	1			6010B	TCLP
Manganese	0.067		0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.12	J B	0.50	0.020	mg/L	1			6010B	TCLP
Barium	0.27	J	0.50	0.050	mg/L	1			6010B	SPLP East
Boron	0.16		0.10	0.050	mg/L	1			6010B	SPLP East
Chromium	0.085		0.025	0.010	mg/L	1			6010B	SPLP East
Cobalt	0.019	J	0.025	0.010	mg/L	1			6010B	SPLP East
Iron	76	B	0.40	0.20	mg/L	1			6010B	SPLP East
Lead	0.059		0.0075	0.0075	mg/L	1			6010B	SPLP East
Manganese	0.33		0.025	0.010	mg/L	1			6010B	SPLP East
Nickel	0.079		0.025	0.010	mg/L	1			6010B	SPLP East
Zinc	0.19	J B	0.50	0.020	mg/L	1			6010B	SPLP East
Mercury	0.037		0.018	0.0095	mg/Kg	1	☼	☼	7471B	Total/NA
pH	8.04		0.200	0.200	SU	1			9045D	Total/NA

Client Sample ID: 2028V-20-B06 (8-15)

Lab Sample ID: 500-109908-8

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B06 (8-15) (Continued)

Lab Sample ID: 500-109908-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0088	J	0.034	0.0052	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.0076	J	0.034	0.0062	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.024	J	0.034	0.0047	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.0079	J	0.034	0.0063	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.015	J	0.034	0.0067	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0051	J	0.034	0.0046	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.018	J	0.034	0.0093	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.010	J	0.034	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.014	J	0.034	0.011	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.49	J	1.0	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	12		0.52	0.24	mg/Kg	1	☼	6010B	Total/NA
Barium	46		0.52	0.095	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.58		0.21	0.045	mg/Kg	1	☼	6010B	Total/NA
Boron	11		2.6	0.36	mg/Kg	1	☼	6010B	Total/NA
Calcium	75000	B	100	33	mg/Kg	10	☼	6010B	Total/NA
Chromium	15	B	0.52	0.089	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.26	0.059	mg/Kg	1	☼	6010B	Total/NA
Copper	18		0.52	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	20000		10	4.0	mg/Kg	1	☼	6010B	Total/NA
Lead	11		0.26	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	24000		5.2	2.1	mg/Kg	1	☼	6010B	Total/NA
Manganese	400	B	0.52	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	35		0.52	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	2200		26	4.2	mg/Kg	1	☼	6010B	Total/NA
Sodium	330		52	6.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.26	0.076	mg/Kg	1	☼	6010B	Total/NA
Zinc	52		1.0	0.33	mg/Kg	1	☼	6010B	Total/NA
Barium	0.59		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.064	J	0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	1.9		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.028		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.039	J B	0.50	0.020	mg/L	1		6010B	TCLP
Barium	0.25	J	0.50	0.050	mg/L	1		6010B	SPLP East
Boron	0.19		0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.076		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.027		0.025	0.010	mg/L	1		6010B	SPLP East
Iron	60	B	0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.024		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.51		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.078		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.18	J B	0.50	0.020	mg/L	1		6010B	SPLP East
Mercury	0.023		0.016	0.0082	mg/Kg	1	☼	7471B	Total/NA
pH	8.11		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 2028V-20-B06 (8-15)D

Lab Sample ID: 500-109908-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.012	J	0.039	0.0060	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.0080	J	0.039	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B06 (8-15)D (Continued)

Lab Sample ID: 500-109908-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.029	J	0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.011	J	0.039	0.0072	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.017	J	0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0054	J	0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.019	J	0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.011	J	0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.014	J	0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.43	J	1.1	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	8.2		0.56	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	39		0.56	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.60		0.23	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	11		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.20	B	0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	73000	B	110	36	mg/Kg	10	☼	6010B	Total/NA
Chromium	15	B	0.56	0.097	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.28	0.064	mg/Kg	1	☼	6010B	Total/NA
Copper	22		0.56	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	19000		11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	13		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	26000		5.6	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	320	B	0.56	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	33		0.56	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	2400		28	4.6	mg/Kg	1	☼	6010B	Total/NA
Sodium	320		56	7.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.28	0.082	mg/Kg	1	☼	6010B	Total/NA
Zinc	74		1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.59		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.10	J	0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	1.9		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.024	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.038	J B	0.50	0.020	mg/L	1		6010B	TCLP
Barium	0.32	J	0.50	0.050	mg/L	1		6010B	SPLP East
Beryllium	0.0045		0.0040	0.0040	mg/L	1		6010B	SPLP East
Boron	0.21		0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.10		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.038		0.025	0.010	mg/L	1		6010B	SPLP East
Iron	78	B	0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.031		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.73		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.10		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.17	J B	0.50	0.020	mg/L	1		6010B	SPLP East
Mercury	0.026		0.018	0.0095	mg/Kg	1	☼	7471B	Total/NA
pH	8.26		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 2028V-20-B02 (0-5)

Lab Sample ID: 500-109908-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.032		0.018	0.0036	mg/Kg	1	☼	8260B	Total/NA
Naphthalene	0.011	J	0.041	0.0064	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B02 (0-5) (Continued)

Lab Sample ID: 500-109908-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Phenanthrene	0.0079	J	0.041	0.0058	mg/Kg	1		☼	8270D	Total/NA
Fluoranthene	0.012	J	0.041	0.0077	mg/Kg	1		☼	8270D	Total/NA
Pyrene	0.011	J	0.041	0.0082	mg/Kg	1		☼	8270D	Total/NA
Benzo[a]anthracene	0.0065	J	0.041	0.0056	mg/Kg	1		☼	8270D	Total/NA
Antimony	0.35	J	1.3	0.26	mg/Kg	1		☼	6010B	Total/NA
Arsenic	6.7		0.63	0.29	mg/Kg	1		☼	6010B	Total/NA
Barium	65		0.63	0.11	mg/Kg	1		☼	6010B	Total/NA
Beryllium	0.67		0.25	0.054	mg/Kg	1		☼	6010B	Total/NA
Boron	5.9		3.1	0.44	mg/Kg	1		☼	6010B	Total/NA
Cadmium	0.046	J B	0.13	0.036	mg/Kg	1		☼	6010B	Total/NA
Calcium	20000	B	13	4.0	mg/Kg	1		☼	6010B	Total/NA
Chromium	15	B	0.63	0.11	mg/Kg	1		☼	6010B	Total/NA
Cobalt	10		0.31	0.071	mg/Kg	1		☼	6010B	Total/NA
Copper	19		0.63	0.14	mg/Kg	1		☼	6010B	Total/NA
Iron	18000		13	4.8	mg/Kg	1		☼	6010B	Total/NA
Lead	15		0.31	0.16	mg/Kg	1		☼	6010B	Total/NA
Magnesium	12000		6.3	2.5	mg/Kg	1		☼	6010B	Total/NA
Manganese	370	B	0.63	0.12	mg/Kg	1		☼	6010B	Total/NA
Nickel	23		0.63	0.17	mg/Kg	1		☼	6010B	Total/NA
Potassium	1500		31	5.1	mg/Kg	1		☼	6010B	Total/NA
Selenium	0.36	J	0.63	0.31	mg/Kg	1		☼	6010B	Total/NA
Sodium	360		63	8.3	mg/Kg	1		☼	6010B	Total/NA
Vanadium	22		0.31	0.091	mg/Kg	1		☼	6010B	Total/NA
Zinc	57		1.3	0.40	mg/Kg	1		☼	6010B	Total/NA
Barium	0.63		0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.086	J	0.50	0.050	mg/L	1			6010B	TCLP
Cobalt	0.019	J	0.025	0.010	mg/L	1			6010B	TCLP
Manganese	7.5		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.014	J	0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.24	J B	0.50	0.020	mg/L	1			6010B	TCLP
Barium	0.28	J	0.50	0.050	mg/L	1			6010B	SPLP East
Boron	0.13		0.10	0.050	mg/L	1			6010B	SPLP East
Chromium	0.075		0.025	0.010	mg/L	1			6010B	SPLP East
Cobalt	0.027		0.025	0.010	mg/L	1			6010B	SPLP East
Iron	77	B	0.40	0.20	mg/L	1			6010B	SPLP East
Lead	0.039		0.0075	0.0075	mg/L	1			6010B	SPLP East
Manganese	0.57		0.025	0.010	mg/L	1			6010B	SPLP East
Nickel	0.081		0.025	0.010	mg/L	1			6010B	SPLP East
Zinc	0.18	J B	0.50	0.020	mg/L	1			6010B	SPLP East
Mercury	0.035		0.021	0.011	mg/Kg	1		☼	7471B	Total/NA
pH	8.48		0.200	0.200	SU	1			9045D	Total/NA

Client Sample ID: 2028V-20-B02 (5-10)

Lab Sample ID: 500-109908-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	0.021		0.018	0.0035	mg/Kg	1		☼	8260B	Total/NA
Naphthalene	0.018	J	0.040	0.0062	mg/Kg	1		☼	8270D	Total/NA
Antimony	0.46	J	1.2	0.24	mg/Kg	1		☼	6010B	Total/NA
Arsenic	10		0.58	0.27	mg/Kg	1		☼	6010B	Total/NA
Barium	57		0.58	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B02 (5-10) (Continued)

Lab Sample ID: 500-109908-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.65		0.23	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	9.4		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Calcium	75000	B	120	38	mg/Kg	10	☼	6010B	Total/NA
Chromium	16	B	0.58	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	14		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	24		0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	20000		12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	16		0.29	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	26000		5.8	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	520	B	0.58	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	34		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2000		29	4.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.65		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	330		58	7.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	58		1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.63		0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.016	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	6.1		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.033	J B	0.50	0.020	mg/L	1		6010B	TCLP
Barium	0.060	J	0.50	0.050	mg/L	1		6010B	SPLP East
Boron	0.077	J	0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.010	J	0.025	0.010	mg/L	1		6010B	SPLP East
Iron	8.4	B	0.40	0.20	mg/L	1		6010B	SPLP East
Manganese	0.16		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.010	J	0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.021	J B	0.50	0.020	mg/L	1		6010B	SPLP East
Mercury	0.035		0.019	0.0099	mg/Kg	1	☼	7471B	Total/NA
pH	8.51		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 2028V-20-B03 (0-5)

Lab Sample ID: 500-109908-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0071	J	0.039	0.0052	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.037	J	0.039	0.0071	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.029	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.63		0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.088		0.039	0.0066	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	1.4		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	1.6		0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.65		0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.88		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1.3		0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.55		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.84		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.48		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz[a,h]anthracene	0.11		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.44		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.83	J	1.2	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B03 (0-5) (Continued)

Lab Sample ID: 500-109908-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.2		0.60	0.28	mg/Kg	1	☼	6010B	Total/NA
Barium	70		0.60	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.67		0.24	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	7.3		3.0	0.42	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.36	B	0.12	0.035	mg/Kg	1	☼	6010B	Total/NA
Calcium	21000	B	12	3.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	18	B	0.60	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	10		0.30	0.068	mg/Kg	1	☼	6010B	Total/NA
Copper	40		0.60	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	18000		12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	90		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	13000		6.0	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	370	B	0.60	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	25		0.60	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1600		30	4.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.51	J	0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Sodium	190		60	7.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	22		0.30	0.088	mg/Kg	1	☼	6010B	Total/NA
Zinc	100		1.2	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	0.42	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.071	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.12		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.21	J B	0.50	0.020	mg/L	1		6010B	TCLP
Barium	0.23	J	0.50	0.050	mg/L	1		6010B	SPLP East
Boron	0.089	J	0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.060		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.014	J	0.025	0.010	mg/L	1		6010B	SPLP East
Iron	61	B	0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.054		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.28		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.055		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.17	J B	0.50	0.020	mg/L	1		6010B	SPLP East
Mercury	0.049		0.018	0.0096	mg/Kg	1	☼	7471B	Total/NA
pH	8.43		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 2028V-20-B03 (5-10)

Lab Sample ID: 500-109908-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0095	J	0.041	0.0063	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.0074	J	0.041	0.0057	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.011	J	0.041	0.0076	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.0093	J	0.041	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0062	J	0.041	0.0055	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.35	J	1.2	0.25	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.5		0.61	0.28	mg/Kg	1	☼	6010B	Total/NA
Barium	75		0.61	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.84		0.24	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	6.1		3.1	0.43	mg/Kg	1	☼	6010B	Total/NA
Calcium	15000	B	12	3.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	19	B	0.61	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B03 (5-10) (Continued)

Lab Sample ID: 500-109908-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Cobalt	13		0.31	0.069	mg/Kg	1		☼	6010B	Total/NA
Copper	23		0.61	0.13	mg/Kg	1		☼	6010B	Total/NA
Iron	22000		12	4.7	mg/Kg	1		☼	6010B	Total/NA
Lead	16		0.31	0.15	mg/Kg	1		☼	6010B	Total/NA
Magnesium	11000		6.1	2.5	mg/Kg	1		☼	6010B	Total/NA
Manganese	450	B	0.61	0.12	mg/Kg	1		☼	6010B	Total/NA
Nickel	39		0.61	0.17	mg/Kg	1		☼	6010B	Total/NA
Potassium	1800		31	5.0	mg/Kg	1		☼	6010B	Total/NA
Selenium	0.41	J	0.61	0.30	mg/Kg	1		☼	6010B	Total/NA
Sodium	220		61	8.1	mg/Kg	1		☼	6010B	Total/NA
Thallium	0.41	J	0.61	0.30	mg/Kg	1		☼	6010B	Total/NA
Vanadium	24		0.31	0.089	mg/Kg	1		☼	6010B	Total/NA
Zinc	67		1.2	0.39	mg/Kg	1		☼	6010B	Total/NA
Barium	0.44	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.055	J	0.50	0.050	mg/L	1			6010B	TCLP
Manganese	0.13		0.025	0.010	mg/L	1			6010B	TCLP
Barium	0.39	J	0.50	0.050	mg/L	1			6010B	SPLP East
Beryllium	0.0046		0.0040	0.0040	mg/L	1			6010B	SPLP East
Boron	0.14		0.10	0.050	mg/L	1			6010B	SPLP East
Chromium	0.10		0.025	0.010	mg/L	1			6010B	SPLP East
Cobalt	0.025		0.025	0.010	mg/L	1			6010B	SPLP East
Iron	100	B	0.40	0.20	mg/L	1			6010B	SPLP East
Lead	0.043		0.0075	0.0075	mg/L	1			6010B	SPLP East
Manganese	0.45		0.025	0.010	mg/L	1			6010B	SPLP East
Nickel	0.099		0.025	0.010	mg/L	1			6010B	SPLP East
Zinc	0.25	J B	0.50	0.020	mg/L	1			6010B	SPLP East
Thallium	0.0024		0.0020	0.0020	mg/L	1			6020A	SPLP East
Mercury	0.037		0.018	0.0096	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-109908-3	2028V-20-B04 (0-8)	Solid	04/07/16 11:40	04/07/16 16:50
500-109908-4	2028V-20-B04 (8-15)	Solid	04/07/16 11:45	04/07/16 16:50
500-109908-5	2028V-20-B05 (0-8)	Solid	04/07/16 13:00	04/07/16 16:50
500-109908-6	2028V-20-B05 (8-15)	Solid	04/07/16 13:05	04/07/16 16:50
500-109908-7	2028V-20-B06 (0-8)	Solid	04/07/16 13:50	04/07/16 16:50
500-109908-8	2028V-20-B06 (8-15)	Solid	04/07/16 13:55	04/07/16 16:50
500-109908-9	2028V-20-B06 (8-15)D	Solid	04/07/16 13:55	04/07/16 16:50
500-109908-10	2028V-20-B02 (0-5)	Solid	04/07/16 14:26	04/07/16 16:50
500-109908-11	2028V-20-B02 (5-10)	Solid	04/07/16 14:30	04/07/16 16:50
500-109908-12	2028V-20-B03 (0-5)	Solid	04/07/16 15:00	04/07/16 16:50
500-109908-13	2028V-20-B03 (5-10)	Solid	04/07/16 15:05	04/07/16 16:50

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B04 (0-8)

Lab Sample ID: 500-109908-3

Date Collected: 04/07/16 11:40

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 83.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.11		0.023	0.0044	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Benzene	<0.0057		0.0057	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Bromodichloromethane	<0.0057		0.0057	0.00096	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Bromoform	<0.0057		0.0057	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Bromomethane	<0.0057		0.0057	0.0021	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
2-Butanone (MEK)	0.023		0.0057	0.0020	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Carbon disulfide	<0.0057		0.0057	0.0021	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Carbon tetrachloride	<0.0057		0.0057	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Chlorobenzene	<0.0057		0.0057	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Chloroethane	<0.0057		0.0057	0.0024	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Chloroform	<0.0057		0.0057	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Chloromethane	<0.0057		0.0057	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
cis-1,2-Dichloroethene	<0.0057		0.0057	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
cis-1,3-Dichloropropene	<0.0057		0.0057	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Dibromochloromethane	<0.0057		0.0057	0.00066	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
1,1-Dichloroethane	<0.0057		0.0057	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
1,2-Dichloroethane	<0.0057		0.0057	0.00084	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
1,1-Dichloroethene	<0.0057		0.0057	0.0021	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
1,2-Dichloropropane	<0.0057		0.0057	0.0015	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
1,3-Dichloropropene, Total	<0.0057		0.0057	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Ethylbenzene	<0.0057		0.0057	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
2-Hexanone	<0.0057		0.0057	0.0018	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Methylene Chloride	<0.0057		0.0057	0.0043	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
4-Methyl-2-pentanone (MIBK)	<0.0057		0.0057	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Methyl tert-butyl ether	<0.0057		0.0057	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Styrene	<0.0057		0.0057	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
1,1,2,2-Tetrachloroethane	<0.0057		0.0057	0.00091	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Tetrachloroethene	<0.0057		0.0057	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Toluene	<0.0057		0.0057	0.0020	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
trans-1,2-Dichloroethene	<0.0057		0.0057	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
trans-1,3-Dichloropropene	<0.0057		0.0057	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
1,1,1-Trichloroethane	<0.0057		0.0057	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
1,1,2-Trichloroethane	<0.0057		0.0057	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Trichloroethene	<0.0057		0.0057	0.0015	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Vinyl acetate	<0.0057		0.0057	0.0015	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Vinyl chloride	<0.0057		0.0057	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1
Xylenes, Total	<0.011		0.011	0.0021	mg/Kg	☼	04/08/16 08:45	04/11/16 15:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 120	04/08/16 08:45	04/11/16 15:50	1
Dibromofluoromethane	111		75 - 120	04/08/16 08:45	04/11/16 15:50	1
1,2-Dichloroethane-d4 (Surr)	110		69 - 134	04/08/16 08:45	04/11/16 15:50	1
Toluene-d8 (Surr)	116		75 - 123	04/08/16 08:45	04/11/16 15:50	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	☼	04/11/16 07:04	04/13/16 22:52	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B04 (0-8)

Lab Sample ID: 500-109908-3

Date Collected: 04/07/16 11:40

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 83.7

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	☼	04/11/16 07:04	04/13/16 22:52	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Naphthalene	0.012	J	0.039	0.0061	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
2,4,6-Trichlorophenol	<0.39	*	0.39	0.14	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
2-Methylnaphthalene	<0.039		0.039	0.0073	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
2-Chloronaphthalene	<0.20	*	0.20	0.044	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
2,6-Dinitrotoluene	<0.20	*	0.20	0.078	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Dimethyl phthalate	<0.20	*	0.20	0.052	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
2,4-Dinitrophenol	<0.80		0.80	0.69	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Acenaphthylene	<0.039	*	0.039	0.0052	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
2,4-Dinitrotoluene	<0.20	*	0.20	0.063	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Acenaphthene	0.012	J *	0.039	0.0071	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Dibenzofuran	<0.20	*	0.20	0.046	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Fluorene	0.012	J *	0.039	0.0055	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
4-Nitroaniline	<0.39	*	0.39	0.17	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Hexachlorobenzene	<0.080		0.080	0.0091	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Diethyl phthalate	<0.20	*	0.20	0.067	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
4-Chlorophenyl phenyl ether	<0.20	*	0.20	0.046	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Pentachlorophenol	<0.80		0.80	0.63	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
N-Nitrosodiphenylamine	<0.20	*	0.20	0.047	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Phenanthrene	0.15		0.039	0.0055	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Anthracene	0.039		0.039	0.0066	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Carbazole	<0.20	*	0.20	0.099	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Fluoranthene	0.54		0.039	0.0073	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Pyrene	0.48		0.039	0.0078	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Benzo[a]anthracene	0.27		0.039	0.0053	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B04 (0-8)

Lab Sample ID: 500-109908-3

Date Collected: 04/07/16 11:40

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 83.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.29		0.039	0.011	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Bis(2-ethylhexyl) phthalate	0.079	J	0.20	0.072	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Benzo[b]fluoranthene	0.44		0.039	0.0085	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Benzo[k]fluoranthene	0.16		0.039	0.012	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Benzo[a]pyrene	0.28		0.039	0.0076	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Indeno[1,2,3-cd]pyrene	0.20		0.039	0.010	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Dibenz(a,h)anthracene	0.047		0.039	0.0076	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
Benzo[g,h,i]perylene	0.20		0.039	0.013	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	04/11/16 07:04	04/13/16 22:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	128		40 - 130	04/11/16 07:04	04/13/16 22:52	1
Phenol-d5	121		36 - 123	04/11/16 07:04	04/13/16 22:52	1
Nitrobenzene-d5	121		33 - 124	04/11/16 07:04	04/13/16 22:52	1
2-Fluorobiphenyl	137	X	42 - 115	04/11/16 07:04	04/13/16 22:52	1
2,4,6-Tribromophenol	130		25 - 130	04/11/16 07:04	04/13/16 22:52	1
Terphenyl-d14	143		25 - 150	04/11/16 07:04	04/13/16 22:52	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.50	J	1.1	0.23	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Arsenic	6.1		0.56	0.26	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Barium	74		0.56	0.10	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Beryllium	0.75		0.23	0.049	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Boron	6.3		2.8	0.39	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Cadmium	<0.11		0.11	0.033	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Calcium	11000	B	11	3.6	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Chromium	17	B	0.56	0.097	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Cobalt	11		0.28	0.064	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Copper	19		0.56	0.12	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Iron	19000		11	4.3	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Lead	18		0.28	0.14	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Magnesium	5500		5.6	2.3	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Manganese	340	B	0.56	0.11	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Nickel	25		0.56	0.15	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Potassium	1600		28	4.6	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Selenium	0.53	J	0.56	0.28	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Silver	<0.28		0.28	0.066	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Sodium	1900		56	7.4	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Vanadium	25		0.28	0.082	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	1
Zinc	58		1.1	0.36	mg/Kg	☼	04/08/16 15:37	04/09/16 17:12	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		04/12/16 14:17	04/13/16 11:21	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:17	04/13/16 11:21	1
Boron	0.11	J	0.50	0.050	mg/L		04/12/16 14:17	04/13/16 11:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B04 (0-8)

Lab Sample ID: 500-109908-3

Date Collected: 04/07/16 11:40

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 83.7

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		04/12/16 14:17	04/13/16 11:21	1
Chromium	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:21	1
Cobalt	0.017	J	0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:21	1
Iron	<0.40		0.40	0.20	mg/L		04/12/16 14:17	04/13/16 11:21	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/12/16 14:17	04/13/16 11:21	1
Manganese	5.0		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:21	1
Nickel	0.013	J	0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:21	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:17	04/13/16 11:21	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:21	1
Zinc	0.028	J B	0.50	0.020	mg/L		04/12/16 14:17	04/13/16 11:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.75		0.50	0.050	mg/L		04/12/16 14:16	04/13/16 10:33	1
Beryllium	0.0077		0.0040	0.0040	mg/L		04/12/16 14:16	04/13/16 10:33	1
Boron	0.25		0.10	0.050	mg/L		04/12/16 14:16	04/13/16 10:33	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/12/16 14:16	04/13/16 10:33	1
Chromium	0.19		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:33	1
Cobalt	0.057		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:33	1
Iron	180	B	0.40	0.20	mg/L		04/12/16 14:16	04/13/16 10:33	1
Lead	0.12		0.0075	0.0075	mg/L		04/12/16 14:16	04/13/16 10:33	1
Manganese	1.4		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:33	1
Nickel	0.17		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:33	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:16	04/13/16 10:33	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:33	1
Zinc	0.41	J B	0.50	0.020	mg/L		04/12/16 14:16	04/13/16 10:33	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		04/12/16 14:17	04/13/16 12:16	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:17	04/13/16 12:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/12/16 14:16	04/13/16 13:29	1
Thallium	0.0031		0.0020	0.0020	mg/L		04/12/16 14:16	04/13/16 13:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/12/16 16:30	04/13/16 10:25	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		04/12/16 16:30	04/13/16 09:39	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.039		0.020	0.010	mg/Kg	☼	04/08/16 15:45	04/11/16 09:33	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B04 (0-8)

Lab Sample ID: 500-109908-3

Date Collected: 04/07/16 11:40

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 83.7

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.25		0.200	0.200	SU			04/12/16 17:04	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B04 (8-15)

Lab Sample ID: 500-109908-4

Date Collected: 04/07/16 11:45

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.060		0.017	0.0032	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Benzene	<0.0042		0.0042	0.00092	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Bromodichloromethane	<0.0042		0.0042	0.00070	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Bromoform	<0.0042		0.0042	0.00085	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Bromomethane	<0.0042		0.0042	0.0015	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
2-Butanone (MEK)	0.0074		0.0042	0.0015	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Carbon disulfide	<0.0042		0.0042	0.0015	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Carbon tetrachloride	<0.0042		0.0042	0.00089	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Chlorobenzene	<0.0042		0.0042	0.00098	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Chloroethane	<0.0042		0.0042	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Chloroform	<0.0042		0.0042	0.00081	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Chloromethane	<0.0042		0.0042	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
cis-1,2-Dichloroethene	<0.0042		0.0042	0.00085	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
cis-1,3-Dichloropropene	<0.0042		0.0042	0.00095	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Dibromochloromethane	<0.0042		0.0042	0.00048	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
1,1-Dichloroethane	<0.0042		0.0042	0.00086	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
1,2-Dichloroethane	<0.0042		0.0042	0.00062	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
1,1-Dichloroethene	<0.0042		0.0042	0.0015	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
1,2-Dichloropropane	<0.0042		0.0042	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
1,3-Dichloropropane, Total	<0.0042		0.0042	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Ethylbenzene	<0.0042		0.0042	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Methylene Chloride	<0.0042		0.0042	0.0031	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.00086	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Methyl tert-butyl ether	<0.0042		0.0042	0.00098	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Styrene	<0.0042		0.0042	0.00097	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
1,1,2,2-Tetrachloroethane	<0.0042		0.0042	0.00066	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Tetrachloroethene	<0.0042		0.0042	0.00087	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Toluene	<0.0042		0.0042	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
trans-1,2-Dichloroethene	<0.0042		0.0042	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
trans-1,3-Dichloropropene	<0.0042		0.0042	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
1,1,1-Trichloroethane	<0.0042		0.0042	0.00097	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
1,1,2-Trichloroethane	<0.0042		0.0042	0.00081	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Trichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Vinyl acetate	<0.0042		0.0042	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Vinyl chloride	<0.0042		0.0042	0.00099	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1
Xylenes, Total	<0.0083		0.0083	0.0015	mg/Kg	☼	04/08/16 08:45	04/11/16 16:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 120	04/08/16 08:45	04/11/16 16:15	1
Dibromofluoromethane	117		75 - 120	04/08/16 08:45	04/11/16 16:15	1
1,2-Dichloroethane-d4 (Surr)	109		69 - 134	04/08/16 08:45	04/11/16 16:15	1
Toluene-d8 (Surr)	114		75 - 123	04/08/16 08:45	04/11/16 16:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.082	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B04 (8-15)

Lab Sample ID: 500-109908-4

Date Collected: 04/07/16 11:45

Matrix: Solid

Date Received: 04/07/16 16:50

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	0.044	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.043	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Hexachloroethane	<0.18		0.18	0.056	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
2-Chlorophenol	<0.18		0.18	0.063	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Nitrobenzene	<0.036		0.036	0.0092	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Hexachlorobutadiene	<0.18		0.18	0.058	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
2,4,6-Trichlorophenol	<0.36 *		0.36	0.13	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
2,4,5-Trichlorophenol	<0.36		0.36	0.084	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
2-Methylnaphthalene	<0.036		0.036	0.0067	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
2-Chloronaphthalene	<0.18 *		0.18	0.041	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
2,6-Dinitrotoluene	<0.18 *		0.18	0.072	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
2-Nitrophenol	<0.36		0.36	0.087	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Dimethyl phthalate	<0.18 *		0.18	0.048	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Acenaphthylene	<0.036 *		0.036	0.0048	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
2,4-Dinitrotoluene	<0.18 *		0.18	0.058	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Acenaphthene	<0.036 *		0.036	0.0066	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Dibenzofuran	<0.18 *		0.18	0.043	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Fluorene	<0.036 *		0.036	0.0052	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
4-Nitroaniline	<0.36 *		0.36	0.15	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Diethyl phthalate	<0.18 *		0.18	0.062	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
4-Chlorophenyl phenyl ether	<0.18 *		0.18	0.043	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
N-Nitrosodiphenylamine	<0.18 *		0.18	0.043	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.29	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Phenanthrene	0.0066	J	0.036	0.0051	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Anthracene	<0.036		0.036	0.0061	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Carbazole	<0.18 *		0.18	0.092	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Fluoranthene	<0.036		0.036	0.0068	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Pyrene	0.0088	J	0.036	0.0073	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Butyl benzyl phthalate	<0.18		0.18	0.070	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Benzo[a]anthracene	<0.036		0.036	0.0049	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B04 (8-15)

Lab Sample ID: 500-109908-4

Date Collected: 04/07/16 11:45

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.036		0.036	0.010	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Di-n-octyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Benzo[b]fluoranthene	<0.036		0.036	0.0079	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Benzo[a]pyrene	<0.036		0.036	0.0071	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0095	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0071	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
Benzo[g,h,i]perylene	<0.036		0.036	0.012	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	04/11/16 07:04	04/14/16 16:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	75		40 - 130	04/11/16 07:04	04/14/16 16:07	1
Phenol-d5	65		36 - 123	04/11/16 07:04	04/14/16 16:07	1
Nitrobenzene-d5	61		33 - 124	04/11/16 07:04	04/14/16 16:07	1
2-Fluorobiphenyl	83		42 - 115	04/11/16 07:04	04/14/16 16:07	1
2,4,6-Tribromophenol	85		25 - 130	04/11/16 07:04	04/14/16 16:07	1
Terphenyl-d14	88		25 - 150	04/11/16 07:04	04/14/16 16:07	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.41	J	1.1	0.23	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Arsenic	6.6		0.56	0.26	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Barium	66		0.56	0.10	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Beryllium	0.68		0.22	0.048	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Boron	8.1		2.8	0.39	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Cadmium	<0.11		0.11	0.032	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Calcium	18000	B	11	3.6	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Chromium	18	B	0.56	0.096	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Cobalt	14		0.28	0.063	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Copper	19		0.56	0.12	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Iron	21000		11	4.3	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Lead	15		0.28	0.14	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Magnesium	12000		5.6	2.3	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Manganese	570	B	0.56	0.11	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Nickel	31		0.56	0.15	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Potassium	1900		28	4.5	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Selenium	0.52	J	0.56	0.28	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Silver	<0.28		0.28	0.065	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Sodium	1300		56	7.3	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Thallium	<0.56		0.56	0.27	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Vanadium	24		0.28	0.081	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1
Zinc	57		1.1	0.35	mg/Kg	☼	04/08/16 15:37	04/09/16 17:17	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.59		0.50	0.050	mg/L		04/12/16 14:17	04/13/16 11:39	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:17	04/13/16 11:39	1
Boron	0.078	J	0.50	0.050	mg/L		04/12/16 14:17	04/13/16 11:39	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B04 (8-15)

Lab Sample ID: 500-109908-4

Date Collected: 04/07/16 11:45

Matrix: Solid

Date Received: 04/07/16 16:50

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		04/12/16 14:17	04/13/16 11:39	1
Chromium	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:39	1
Cobalt	0.015	J	0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:39	1
Iron	<0.40		0.40	0.20	mg/L		04/12/16 14:17	04/13/16 11:39	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/12/16 14:17	04/13/16 11:39	1
Manganese	6.6		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:39	1
Nickel	0.017	J	0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:39	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:17	04/13/16 11:39	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:39	1
Zinc	<0.50		0.50	0.020	mg/L		04/12/16 14:17	04/13/16 11:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.51		0.50	0.050	mg/L		04/12/16 14:16	04/13/16 10:40	1
Beryllium	0.0059		0.0040	0.0040	mg/L		04/12/16 14:16	04/13/16 10:40	1
Boron	0.18		0.10	0.050	mg/L		04/12/16 14:16	04/13/16 10:40	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/12/16 14:16	04/13/16 10:40	1
Chromium	0.14		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:40	1
Cobalt	0.051		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:40	1
Iron	130	B	0.40	0.20	mg/L		04/12/16 14:16	04/13/16 10:40	1
Lead	0.063		0.0075	0.0075	mg/L		04/12/16 14:16	04/13/16 10:40	1
Manganese	1.1		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:40	1
Nickel	0.15		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:40	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:16	04/13/16 10:40	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:40	1
Zinc	0.29	J B	0.50	0.020	mg/L		04/12/16 14:16	04/13/16 10:40	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		04/12/16 14:17	04/13/16 12:19	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:17	04/13/16 12:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/12/16 14:16	04/13/16 13:32	1
Thallium	0.0021		0.0020	0.0020	mg/L		04/12/16 14:16	04/13/16 13:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/12/16 16:30	04/13/16 10:27	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		04/12/16 16:30	04/13/16 09:40	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.051		0.018	0.0094	mg/Kg	☼	04/08/16 15:45	04/11/16 09:35	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B04 (8-15)

Lab Sample ID: 500-109908-4

Date Collected: 04/07/16 11:45

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 88.4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.07		0.200	0.200	SU			04/12/16 17:07	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B05 (0-8)

Lab Sample ID: 500-109908-5

Date Collected: 04/07/16 13:00

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 83.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0034	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Benzene	<0.0044		0.0044	0.00098	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Bromodichloromethane	<0.0044		0.0044	0.00074	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Bromoform	<0.0044		0.0044	0.00090	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Bromomethane	<0.0044		0.0044	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
2-Butanone (MEK)	<0.0044		0.0044	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Carbon disulfide	<0.0044		0.0044	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Carbon tetrachloride	<0.0044		0.0044	0.00094	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Chlorobenzene	<0.0044		0.0044	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Chloroethane	<0.0044		0.0044	0.0019	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Chloroform	<0.0044		0.0044	0.00086	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Chloromethane	<0.0044		0.0044	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
cis-1,2-Dichloroethene	<0.0044		0.0044	0.00090	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
cis-1,3-Dichloropropene	<0.0044		0.0044	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Dibromochloromethane	<0.0044		0.0044	0.00051	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
1,1-Dichloroethane	<0.0044		0.0044	0.00091	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
1,2-Dichloroethane	<0.0044		0.0044	0.00065	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
1,1-Dichloroethene	<0.0044		0.0044	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
1,2-Dichloropropane	<0.0044		0.0044	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
1,3-Dichloropropane, Total	<0.0044		0.0044	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Ethylbenzene	<0.0044		0.0044	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Methylene Chloride	<0.0044		0.0044	0.0033	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.00091	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Methyl tert-butyl ether	<0.0044		0.0044	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Styrene	<0.0044		0.0044	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
1,1,2,2-Tetrachloroethane	<0.0044		0.0044	0.00070	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Tetrachloroethene	<0.0044		0.0044	0.00092	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Toluene	<0.0044		0.0044	0.0015	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
trans-1,2-Dichloroethene	<0.0044		0.0044	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
trans-1,3-Dichloropropene	<0.0044		0.0044	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
1,1,1-Trichloroethane	<0.0044		0.0044	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
1,1,2-Trichloroethane	<0.0044		0.0044	0.00085	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Trichloroethene	<0.0044		0.0044	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Vinyl acetate	<0.0044		0.0044	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Vinyl chloride	<0.0044		0.0044	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1
Xylenes, Total	<0.0088		0.0088	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 16:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 120	04/08/16 08:45	04/11/16 16:41	1
Dibromofluoromethane	108		75 - 120	04/08/16 08:45	04/11/16 16:41	1
1,2-Dichloroethane-d4 (Surr)	106		69 - 134	04/08/16 08:45	04/11/16 16:41	1
Toluene-d8 (Surr)	119		75 - 123	04/08/16 08:45	04/11/16 16:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B05 (0-8)

Lab Sample ID: 500-109908-5

Date Collected: 04/07/16 13:00

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 83.7

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	0.045	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.046	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Naphthalene	0.016	J	0.038	0.0058	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
2,4,6-Trichlorophenol	<0.38	*	0.38	0.13	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
2-Methylnaphthalene	<0.038		0.038	0.0070	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
2-Chloronaphthalene	<0.19	*	0.19	0.042	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
2,6-Dinitrotoluene	<0.19	*	0.19	0.075	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Dimethyl phthalate	<0.19	*	0.19	0.050	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Acenaphthylene	0.0063	J *	0.038	0.0050	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
2,4-Dinitrotoluene	<0.19	*	0.19	0.060	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Acenaphthene	0.013	J *	0.038	0.0068	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Dibenzofuran	<0.19	*	0.19	0.044	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Fluorene	0.012	J *	0.038	0.0053	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
4-Nitroaniline	<0.38	*	0.38	0.16	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Diethyl phthalate	<0.19	*	0.19	0.064	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
4-Chlorophenyl phenyl ether	<0.19	*	0.19	0.044	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
N-Nitrosodiphenylamine	<0.19	*	0.19	0.045	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.30	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Phenanthrene	0.12		0.038	0.0053	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Anthracene	0.024	J	0.038	0.0063	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Carbazole	<0.19	*	0.19	0.095	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Fluoranthene	0.24		0.038	0.0070	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Pyrene	0.22		0.038	0.0075	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Benzo[a]anthracene	0.11		0.038	0.0051	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B05 (0-8)

Lab Sample ID: 500-109908-5

Date Collected: 04/07/16 13:00

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 83.7

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	☼	04/11/16 07:04	04/13/16 23:48	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Benzo[b]fluoranthene	0.20		0.038	0.0082	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Benzo[k]fluoranthene	0.075		0.038	0.011	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Benzo[a]pyrene	0.13		0.038	0.0073	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Indeno[1,2,3-cd]pyrene	0.091		0.038	0.0098	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Dibenz(a,h)anthracene	0.019	J	0.038	0.0073	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
Benzo[g,h,i]perylene	0.093		0.038	0.012	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	04/11/16 07:04	04/13/16 23:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	111		40 - 130	04/11/16 07:04	04/13/16 23:48	1
Phenol-d5	104		36 - 123	04/11/16 07:04	04/13/16 23:48	1
Nitrobenzene-d5	112		33 - 124	04/11/16 07:04	04/13/16 23:48	1
2-Fluorobiphenyl	125	X	42 - 115	04/11/16 07:04	04/13/16 23:48	1
2,4,6-Tribromophenol	95		25 - 130	04/11/16 07:04	04/13/16 23:48	1
Terphenyl-d14	128		25 - 150	04/11/16 07:04	04/13/16 23:48	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.82	J	1.1	0.24	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Arsenic	7.6		0.57	0.26	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Barium	75		0.57	0.10	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Beryllium	0.70		0.23	0.050	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Boron	5.8		2.9	0.40	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Cadmium	0.23	B	0.11	0.033	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Calcium	47000	B	110	37	mg/Kg	☼	04/08/16 15:37	04/11/16 15:29	10
Chromium	15	B	0.57	0.098	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Cobalt	11		0.29	0.065	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Copper	22		0.57	0.12	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Iron	18000		11	4.4	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Lead	40		0.29	0.14	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Magnesium	11000		5.7	2.3	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Manganese	440	B	0.57	0.11	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Nickel	27		0.57	0.16	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Potassium	1600		29	4.7	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Selenium	0.63		0.57	0.28	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Silver	<0.29		0.29	0.067	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Sodium	270		57	7.6	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Vanadium	20		0.29	0.084	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	1
Zinc	73		1.1	0.36	mg/Kg	☼	04/08/16 15:37	04/09/16 17:30	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		04/12/16 14:17	04/13/16 11:44	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:17	04/13/16 11:44	1
Boron	0.076	J	0.50	0.050	mg/L		04/12/16 14:17	04/13/16 11:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B05 (0-8)

Lab Sample ID: 500-109908-5

Date Collected: 04/07/16 13:00

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 83.7

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		04/12/16 14:17	04/13/16 11:44	1
Chromium	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:44	1
Cobalt	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:44	1
Iron	<0.40		0.40	0.20	mg/L		04/12/16 14:17	04/13/16 11:44	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/12/16 14:17	04/13/16 11:44	1
Manganese	0.17		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:44	1
Nickel	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:44	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:17	04/13/16 11:44	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:44	1
Zinc	0.078	J B	0.50	0.020	mg/L		04/12/16 14:17	04/13/16 11:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.19	J	0.50	0.050	mg/L		04/12/16 14:16	04/13/16 10:46	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:16	04/13/16 10:46	1
Boron	0.082	J	0.10	0.050	mg/L		04/12/16 14:16	04/13/16 10:46	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/12/16 14:16	04/13/16 10:46	1
Chromium	0.051		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:46	1
Cobalt	0.011	J	0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:46	1
Iron	48	B	0.40	0.20	mg/L		04/12/16 14:16	04/13/16 10:46	1
Lead	0.022		0.0075	0.0075	mg/L		04/12/16 14:16	04/13/16 10:46	1
Manganese	0.20		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:46	1
Nickel	0.046		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:46	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:16	04/13/16 10:46	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:46	1
Zinc	0.12	J B	0.50	0.020	mg/L		04/12/16 14:16	04/13/16 10:46	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		04/12/16 14:17	04/13/16 12:22	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:17	04/13/16 12:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/12/16 14:16	04/13/16 13:36	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:16	04/13/16 13:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/12/16 16:30	04/13/16 10:29	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		04/12/16 16:30	04/13/16 09:42	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.049		0.017	0.0092	mg/Kg	☼	04/08/16 15:45	04/11/16 09:37	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B05 (0-8)

Lab Sample ID: 500-109908-5

Date Collected: 04/07/16 13:00

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 83.7

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.28		0.200	0.200	SU			04/12/16 17:10	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B05 (8-15)

Lab Sample ID: 500-109908-6

Date Collected: 04/07/16 13:05

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 91.7

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	☼	04/08/16 08:45	04/11/16 17:06	1
Benzene	<0.0042		0.0042	0.00092	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Bromodichloromethane	<0.0042		0.0042	0.00070	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Bromoform	<0.0042		0.0042	0.00085	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Bromomethane	<0.0042		0.0042	0.0015	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
2-Butanone (MEK)	<0.0042		0.0042	0.0015	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Carbon disulfide	<0.0042		0.0042	0.0015	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Carbon tetrachloride	<0.0042		0.0042	0.00089	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Chlorobenzene	<0.0042		0.0042	0.00098	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Chloroethane	<0.0042		0.0042	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Chloroform	<0.0042		0.0042	0.00081	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Chloromethane	<0.0042		0.0042	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
cis-1,2-Dichloroethene	<0.0042		0.0042	0.00085	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
cis-1,3-Dichloropropene	<0.0042		0.0042	0.00095	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Dibromochloromethane	<0.0042		0.0042	0.00048	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
1,1-Dichloroethane	<0.0042		0.0042	0.00086	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
1,2-Dichloroethane	<0.0042		0.0042	0.00062	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
1,1-Dichloroethene	<0.0042		0.0042	0.0015	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
1,2-Dichloropropane	<0.0042		0.0042	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
1,3-Dichloropropane, Total	<0.0042		0.0042	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Ethylbenzene	<0.0042		0.0042	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Methylene Chloride	<0.0042		0.0042	0.0031	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.00086	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Methyl tert-butyl ether	<0.0042		0.0042	0.00098	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Styrene	<0.0042		0.0042	0.00097	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
1,1,1,2-Tetrachloroethane	<0.0042		0.0042	0.00066	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Tetrachloroethene	<0.0042		0.0042	0.00086	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Toluene	<0.0042		0.0042	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
trans-1,2-Dichloroethene	<0.0042		0.0042	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
trans-1,3-Dichloropropene	<0.0042		0.0042	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
1,1,1-Trichloroethane	<0.0042		0.0042	0.00096	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
1,1,2-Trichloroethane	<0.0042		0.0042	0.00080	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Trichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Vinyl acetate	<0.0042		0.0042	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Vinyl chloride	<0.0042		0.0042	0.00099	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1
Xylenes, Total	<0.0083		0.0083	0.0015	mg/Kg	☼	04/08/16 08:45	04/11/16 17:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 120	04/08/16 08:45	04/11/16 17:06	1
Dibromofluoromethane	111		75 - 120	04/08/16 08:45	04/11/16 17:06	1
1,2-Dichloroethane-d4 (Surr)	109		69 - 134	04/08/16 08:45	04/11/16 17:06	1
Toluene-d8 (Surr)	119		75 - 123	04/08/16 08:45	04/11/16 17:06	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	☼	04/11/16 07:04	04/14/16 00:16	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B05 (8-15)

Lab Sample ID: 500-109908-6

Date Collected: 04/07/16 13:05

Matrix: Solid

Date Received: 04/07/16 16:50

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	<0.18		0.18	0.042	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
2-Methylphenol	<0.18		0.18	0.056	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
N-Nitrosodi-n-propylamine	<0.071		0.071	0.043	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Hexachloroethane	<0.18		0.18	0.053	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Isophorone	<0.18		0.18	0.039	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Naphthalene	0.012	J	0.035	0.0054	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
2,4-Dichlorophenol	<0.35		0.35	0.083	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
4-Chloroaniline	<0.71		0.71	0.16	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
2,4,6-Trichlorophenol	<0.35	*	0.35	0.12	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
2,4,5-Trichlorophenol	<0.35		0.35	0.080	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
2-Methylnaphthalene	<0.035		0.035	0.0065	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
2-Chloronaphthalene	<0.18	*	0.18	0.039	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
2,6-Dinitrotoluene	<0.18	*	0.18	0.069	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Dimethyl phthalate	<0.18	*	0.18	0.046	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Acenaphthylene	<0.035	*	0.035	0.0046	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
2,4-Dinitrotoluene	<0.18	*	0.18	0.056	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Acenaphthene	<0.035	*	0.035	0.0063	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Dibenzofuran	<0.18	*	0.18	0.041	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
4-Nitrophenol	<0.71		0.71	0.33	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Fluorene	<0.035	*	0.035	0.0049	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
4-Nitroaniline	<0.35	*	0.35	0.15	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Hexachlorobenzene	<0.071		0.071	0.0081	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Diethyl phthalate	<0.18	*	0.18	0.060	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
4-Chlorophenyl phenyl ether	<0.18	*	0.18	0.041	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Pentachlorophenol	<0.71		0.71	0.56	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
N-Nitrosodiphenylamine	<0.18	*	0.18	0.041	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Phenanthrene	0.010	J	0.035	0.0049	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Anthracene	<0.035		0.035	0.0059	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Carbazole	<0.18	*	0.18	0.088	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Di-n-butyl phthalate	<0.18		0.18	0.053	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Fluoranthene	<0.035		0.035	0.0065	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Pyrene	0.014	J	0.035	0.0070	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Benzo[a]anthracene	<0.035		0.035	0.0047	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B05 (8-15)

Lab Sample ID: 500-109908-6

Date Collected: 04/07/16 13:05

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 91.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.017	J	0.035	0.0096	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.064	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Di-n-octyl phthalate	<0.18		0.18	0.057	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Benzo[b]fluoranthene	0.011	J	0.035	0.0076	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Benzo[k]fluoranthene	<0.035		0.035	0.010	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Benzo[a]pyrene	<0.035		0.035	0.0068	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Indeno[1,2,3-cd]pyrene	<0.035		0.035	0.0091	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0068	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
Benzo[g,h,i]perylene	0.012	J	0.035	0.011	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	04/11/16 07:04	04/14/16 00:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	122		40 - 130	04/11/16 07:04	04/14/16 00:16	1
Phenol-d5	115		36 - 123	04/11/16 07:04	04/14/16 00:16	1
Nitrobenzene-d5	122		33 - 124	04/11/16 07:04	04/14/16 00:16	1
2-Fluorobiphenyl	142	X	42 - 115	04/11/16 07:04	04/14/16 00:16	1
2,4,6-Tribromophenol	122		25 - 130	04/11/16 07:04	04/14/16 00:16	1
Terphenyl-d14	146		25 - 150	04/11/16 07:04	04/14/16 00:16	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.47	J	1.0	0.22	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Arsenic	10		0.52	0.24	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Barium	27		0.52	0.095	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Beryllium	0.51		0.21	0.045	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Boron	8.6		2.6	0.36	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Cadmium	<0.10		0.10	0.030	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Calcium	64000	B	100	34	mg/Kg	☼	04/08/16 15:37	04/11/16 15:34	10
Chromium	12	B	0.52	0.089	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Cobalt	12		0.26	0.059	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Copper	24		0.52	0.11	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Iron	17000		10	4.0	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Lead	14		0.26	0.13	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Magnesium	27000		5.2	2.1	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Manganese	320	B	0.52	0.10	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Nickel	30		0.52	0.14	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Potassium	1800		26	4.2	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Selenium	0.51	J	0.52	0.26	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Silver	<0.26		0.26	0.061	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Sodium	290		52	6.9	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Thallium	0.26	J	0.52	0.26	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Vanadium	15		0.26	0.076	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	1
Zinc	56		1.0	0.33	mg/Kg	☼	04/08/16 15:37	04/09/16 17:35	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		04/12/16 14:17	04/13/16 11:50	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:17	04/13/16 11:50	1
Boron	0.053	J	0.50	0.050	mg/L		04/12/16 14:17	04/13/16 11:50	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B05 (8-15)

Lab Sample ID: 500-109908-6

Date Collected: 04/07/16 13:05

Matrix: Solid

Date Received: 04/07/16 16:50

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		04/12/16 14:17	04/13/16 11:50	1
Chromium	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:50	1
Cobalt	0.016	J	0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:50	1
Iron	<0.40		0.40	0.20	mg/L		04/12/16 14:17	04/13/16 11:50	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/12/16 14:17	04/13/16 11:50	1
Manganese	2.1		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:50	1
Nickel	0.021	J	0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:50	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:17	04/13/16 11:50	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:50	1
Zinc	0.027	J B	0.50	0.020	mg/L		04/12/16 14:17	04/13/16 11:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.17	J	0.50	0.050	mg/L		04/12/16 14:16	04/13/16 10:53	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:16	04/13/16 10:53	1
Boron	0.12		0.10	0.050	mg/L		04/12/16 14:16	04/13/16 10:53	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/12/16 14:16	04/13/16 10:53	1
Chromium	0.059		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:53	1
Cobalt	0.021	J	0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:53	1
Iron	45	B	0.40	0.20	mg/L		04/12/16 14:16	04/13/16 10:53	1
Lead	0.019		0.0075	0.0075	mg/L		04/12/16 14:16	04/13/16 10:53	1
Manganese	0.34		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:53	1
Nickel	0.064		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:53	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:16	04/13/16 10:53	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 10:53	1
Zinc	0.12	J B	0.50	0.020	mg/L		04/12/16 14:16	04/13/16 10:53	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		04/12/16 14:17	04/13/16 12:26	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:17	04/13/16 12:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/12/16 14:16	04/13/16 13:39	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:16	04/13/16 13:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/12/16 16:30	04/13/16 10:31	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		04/12/16 16:30	04/13/16 09:44	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.017	0.0090	mg/Kg	☼	04/08/16 15:45	04/11/16 09:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B05 (8-15)

Lab Sample ID: 500-109908-6

Date Collected: 04/07/16 13:05

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 91.7

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.17		0.200	0.200	SU			04/12/16 17:13	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B06 (0-8)

Lab Sample ID: 500-109908-7

Date Collected: 04/07/16 13:50

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 86.1

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	☼	04/08/16 08:45	04/11/16 17:32	1
Benzene	<0.0045		0.0045	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Bromodichloromethane	<0.0045		0.0045	0.00076	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Bromoform	<0.0045		0.0045	0.00092	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Carbon disulfide	<0.0045		0.0045	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Carbon tetrachloride	<0.0045		0.0045	0.00096	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Chloroethane	<0.0045		0.0045	0.0019	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Chloroform	<0.0045		0.0045	0.00087	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00092	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Dibromochloromethane	<0.0045		0.0045	0.00052	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
1,1-Dichloroethane	<0.0045		0.0045	0.00092	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
1,2-Dichloroethane	<0.0045		0.0045	0.00066	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
1,1-Dichloroethene	<0.0045		0.0045	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
1,3-Dichloropropene, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Methylene Chloride	<0.0045		0.0045	0.0034	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00092	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Styrene	<0.0045		0.0045	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
1,1,2,2-Tetrachloroethane	<0.0045		0.0045	0.00071	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Tetrachloroethene	<0.0045		0.0045	0.00093	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00087	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Vinyl acetate	<0.0045		0.0045	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1
Xylenes, Total	<0.0090		0.0090	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 17:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 120	04/08/16 08:45	04/11/16 17:32	1
Dibromofluoromethane	108		75 - 120	04/08/16 08:45	04/11/16 17:32	1
1,2-Dichloroethane-d4 (Surr)	106		69 - 134	04/08/16 08:45	04/11/16 17:32	1
Toluene-d8 (Surr)	118		75 - 123	04/08/16 08:45	04/11/16 17:32	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	☼	04/11/16 07:04	04/14/16 00:43	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B06 (0-8)

Lab Sample ID: 500-109908-7

Date Collected: 04/07/16 13:50

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 86.1

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	☼	04/11/16 07:04	04/14/16 00:43	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.046	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Naphthalene	0.0069	J	0.037	0.0057	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
4-Chloroaniline	<0.75		0.75	0.18	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
2,4,6-Trichlorophenol	<0.37	*	0.37	0.13	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
2-Methylnaphthalene	<0.037		0.037	0.0069	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
2-Chloronaphthalene	<0.19	*	0.19	0.041	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
2,6-Dinitrotoluene	<0.19	*	0.19	0.073	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Dimethyl phthalate	<0.19	*	0.19	0.049	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
2,4-Dinitrophenol	<0.75		0.75	0.66	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Acenaphthylene	<0.037	*	0.037	0.0049	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
2,4-Dinitrotoluene	<0.19	*	0.19	0.059	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Acenaphthene	<0.037	*	0.037	0.0067	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Dibenzofuran	<0.19	*	0.19	0.044	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
4-Nitrophenol	<0.75		0.75	0.36	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Fluorene	<0.037	*	0.037	0.0053	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
4-Nitroaniline	<0.37	*	0.37	0.16	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Hexachlorobenzene	<0.075		0.075	0.0087	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Diethyl phthalate	<0.19	*	0.19	0.063	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
4-Chlorophenyl phenyl ether	<0.19	*	0.19	0.044	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
N-Nitrosodiphenylamine	<0.19	*	0.19	0.044	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Phenanthrene	0.063		0.037	0.0052	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Anthracene	0.012	J	0.037	0.0062	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Carbazole	<0.19	*	0.19	0.093	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Fluoranthene	0.28		0.037	0.0069	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Pyrene	0.23		0.037	0.0074	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Benzo[a]anthracene	0.11		0.037	0.0050	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B06 (0-8)

Lab Sample ID: 500-109908-7

Date Collected: 04/07/16 13:50

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 86.1

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	☼	04/11/16 07:04	04/14/16 00:43	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Bis(2-ethylhexyl) phthalate	0.10	J	0.19	0.068	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Benzo[b]fluoranthene	0.29		0.037	0.0081	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Benzo[k]fluoranthene	0.12		0.037	0.011	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Benzo[a]pyrene	0.16		0.037	0.0072	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Indeno[1,2,3-cd]pyrene	0.14		0.037	0.0097	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
Benzo[g,h,i]perylene	0.15		0.037	0.012	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	04/11/16 07:04	04/14/16 00:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	119		40 - 130	04/11/16 07:04	04/14/16 00:43	1
Phenol-d5	112		36 - 123	04/11/16 07:04	04/14/16 00:43	1
Nitrobenzene-d5	124		33 - 124	04/11/16 07:04	04/14/16 00:43	1
2-Fluorobiphenyl	129	X	42 - 115	04/11/16 07:04	04/14/16 00:43	1
2,4,6-Tribromophenol	116		25 - 130	04/11/16 07:04	04/14/16 00:43	1
Terphenyl-d14	133		25 - 150	04/11/16 07:04	04/14/16 00:43	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.32	J	1.1	0.22	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Arsenic	6.5		0.54	0.25	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Barium	51		0.54	0.098	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Beryllium	0.68		0.21	0.047	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Boron	7.2		2.7	0.38	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Cadmium	<0.11		0.11	0.031	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Calcium	16000	B	11	3.5	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Chromium	16	B	0.54	0.092	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Cobalt	9.7		0.27	0.061	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Copper	17		0.54	0.12	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Iron	19000		11	4.1	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Lead	17		0.27	0.13	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Magnesium	10000		5.4	2.2	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Manganese	200	B	0.54	0.11	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Nickel	28		0.54	0.15	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Potassium	1800		27	4.4	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Selenium	0.33	J	0.54	0.27	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Sodium	270		54	7.1	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Thallium	<0.54		0.54	0.26	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Vanadium	22		0.27	0.078	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	1
Zinc	54		1.1	0.34	mg/Kg	☼	04/08/16 15:37	04/09/16 17:40	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		04/12/16 14:17	04/13/16 11:55	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:17	04/13/16 11:55	1
Boron	0.075	J	0.50	0.050	mg/L		04/12/16 14:17	04/13/16 11:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B06 (0-8)

Lab Sample ID: 500-109908-7

Date Collected: 04/07/16 13:50

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 86.1

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		04/12/16 14:17	04/13/16 11:55	1
Chromium	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:55	1
Cobalt	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:55	1
Iron	<0.40		0.40	0.20	mg/L		04/12/16 14:17	04/13/16 11:55	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/12/16 14:17	04/13/16 11:55	1
Manganese	0.067		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:55	1
Nickel	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:55	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:17	04/13/16 11:55	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 11:55	1
Zinc	0.12	J B	0.50	0.020	mg/L		04/12/16 14:17	04/13/16 11:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.27	J	0.50	0.050	mg/L		04/12/16 14:16	04/13/16 11:00	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:16	04/13/16 11:00	1
Boron	0.16		0.10	0.050	mg/L		04/12/16 14:16	04/13/16 11:00	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/12/16 14:16	04/13/16 11:00	1
Chromium	0.085		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:00	1
Cobalt	0.019	J	0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:00	1
Iron	76	B	0.40	0.20	mg/L		04/12/16 14:16	04/13/16 11:00	1
Lead	0.059		0.0075	0.0075	mg/L		04/12/16 14:16	04/13/16 11:00	1
Manganese	0.33		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:00	1
Nickel	0.079		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:00	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:16	04/13/16 11:00	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:00	1
Zinc	0.19	J B	0.50	0.020	mg/L		04/12/16 14:16	04/13/16 11:00	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		04/12/16 14:17	04/13/16 12:29	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:17	04/13/16 12:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/12/16 14:16	04/13/16 13:42	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:16	04/13/16 13:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/12/16 16:30	04/13/16 10:33	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		04/12/16 16:30	04/13/16 09:46	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.037		0.018	0.0095	mg/Kg	☼	04/08/16 15:45	04/11/16 09:47	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B06 (0-8)

Lab Sample ID: 500-109908-7

Date Collected: 04/07/16 13:50

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 86.1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.04		0.200	0.200	SU			04/12/16 17:16	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B06 (8-15)

Lab Sample ID: 500-109908-8

Date Collected: 04/07/16 13:55

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 92.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.015		0.015	0.0030	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Benzene	<0.0038		0.0038	0.00085	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Bromodichloromethane	<0.0038		0.0038	0.00065	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Bromoform	<0.0038		0.0038	0.00078	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Bromomethane	<0.0038		0.0038	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
2-Butanone (MEK)	<0.0038		0.0038	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Carbon disulfide	<0.0038		0.0038	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Carbon tetrachloride	<0.0038		0.0038	0.00082	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Chlorobenzene	<0.0038		0.0038	0.00090	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Chloroethane	<0.0038		0.0038	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Chloroform	<0.0038		0.0038	0.00075	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Chloromethane	<0.0038		0.0038	0.00092	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
cis-1,2-Dichloroethene	<0.0038		0.0038	0.00078	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
cis-1,3-Dichloropropene	<0.0038		0.0038	0.00087	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Dibromochloromethane	<0.0038		0.0038	0.00044	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
1,1-Dichloroethane	<0.0038		0.0038	0.00079	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
1,2-Dichloroethane	<0.0038		0.0038	0.00057	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
1,1-Dichloroethene	<0.0038		0.0038	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
1,2-Dichloropropane	<0.0038		0.0038	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
1,3-Dichloropropene, Total	<0.0038		0.0038	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Ethylbenzene	<0.0038		0.0038	0.00095	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
2-Hexanone	<0.0038		0.0038	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Methylene Chloride	<0.0038		0.0038	0.0029	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
4-Methyl-2-pentanone (MIBK)	<0.0038		0.0038	0.00079	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Methyl tert-butyl ether	<0.0038		0.0038	0.00090	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Styrene	<0.0038		0.0038	0.00090	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
1,1,2,2-Tetrachloroethane	<0.0038		0.0038	0.00061	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Tetrachloroethene	<0.0038		0.0038	0.00080	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Toluene	<0.0038		0.0038	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
trans-1,2-Dichloroethene	<0.0038		0.0038	0.00096	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
trans-1,3-Dichloropropene	<0.0038		0.0038	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
1,1,1-Trichloroethane	<0.0038		0.0038	0.00089	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
1,1,2-Trichloroethane	<0.0038		0.0038	0.00074	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Trichloroethene	<0.0038		0.0038	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Vinyl acetate	<0.0038		0.0038	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Vinyl chloride	<0.0038		0.0038	0.00091	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1
Xylenes, Total	<0.0077		0.0077	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 17:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 120	04/08/16 08:45	04/11/16 17:57	1
Dibromofluoromethane	115		75 - 120	04/08/16 08:45	04/11/16 17:57	1
1,2-Dichloroethane-d4 (Surr)	111		69 - 134	04/08/16 08:45	04/11/16 17:57	1
Toluene-d8 (Surr)	119		75 - 123	04/08/16 08:45	04/11/16 17:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.17		0.17	0.075	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.051	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
1,3-Dichlorobenzene	<0.17		0.17	0.038	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
1,4-Dichlorobenzene	<0.17		0.17	0.044	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B06 (8-15)

Lab Sample ID: 500-109908-8

Date Collected: 04/07/16 13:55

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 92.3

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	☼	04/11/16 07:04	04/14/16 01:11	1
2-Methylphenol	<0.17		0.17	0.054	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
N-Nitrosodi-n-propylamine	<0.068		0.068	0.042	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Hexachloroethane	<0.17		0.17	0.052	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
2-Chlorophenol	<0.17		0.17	0.058	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Nitrobenzene	<0.034		0.034	0.0085	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.035	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.037	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Isophorone	<0.17		0.17	0.038	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
2,4-Dimethylphenol	<0.34		0.34	0.13	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Hexachlorobutadiene	<0.17		0.17	0.053	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Naphthalene	0.0088	J	0.034	0.0052	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
2,4-Dichlorophenol	<0.34		0.34	0.081	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
4-Chloroaniline	<0.68		0.68	0.16	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
2,4,6-Trichlorophenol	<0.34 *		0.34	0.12	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
2,4,5-Trichlorophenol	<0.34		0.34	0.077	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Hexachlorocyclopentadiene	<0.68		0.68	0.20	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
2-Methylnaphthalene	0.0076	J	0.034	0.0062	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
2-Nitroaniline	<0.17		0.17	0.046	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
2-Chloronaphthalene	<0.17 *		0.17	0.038	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
4-Chloro-3-methylphenol	<0.34		0.34	0.12	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
2,6-Dinitrotoluene	<0.17 *		0.17	0.067	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
2-Nitrophenol	<0.34		0.34	0.080	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
3-Nitroaniline	<0.34		0.34	0.11	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Dimethyl phthalate	<0.17 *		0.17	0.044	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
2,4-Dinitrophenol	<0.68		0.68	0.60	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Acenaphthylene	<0.034 *		0.034	0.0045	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
2,4-Dinitrotoluene	<0.17 *		0.17	0.054	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Acenaphthene	<0.034 *		0.034	0.0061	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Dibenzofuran	<0.17 *		0.17	0.040	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
4-Nitrophenol	<0.68		0.68	0.32	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Fluorene	<0.034 *		0.034	0.0048	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
4-Nitroaniline	<0.34 *		0.34	0.14	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.045	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Hexachlorobenzene	<0.068		0.068	0.0079	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Diethyl phthalate	<0.17 *		0.17	0.058	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
4-Chlorophenyl phenyl ether	<0.17 *		0.17	0.040	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Pentachlorophenol	<0.68		0.68	0.54	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
N-Nitrosodiphenylamine	<0.17 *		0.17	0.040	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
4,6-Dinitro-2-methylphenol	<0.68		0.68	0.27	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Phenanthrene	0.024	J	0.034	0.0047	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Anthracene	<0.034		0.034	0.0057	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Carbazole	<0.17 *		0.17	0.085	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Di-n-butyl phthalate	<0.17		0.17	0.052	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Fluoranthene	0.0079	J	0.034	0.0063	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Pyrene	0.015	J	0.034	0.0067	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Butyl benzyl phthalate	<0.17		0.17	0.065	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Benzo[a]anthracene	0.0051	J	0.034	0.0046	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B06 (8-15)

Lab Sample ID: 500-109908-8

Date Collected: 04/07/16 13:55

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 92.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.018	J	0.034	0.0093	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.048	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.062	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Di-n-octyl phthalate	<0.17		0.17	0.055	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Benzo[b]fluoranthene	0.010	J	0.034	0.0073	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Benzo[k]fluoranthene	<0.034		0.034	0.010	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Benzo[a]pyrene	<0.034		0.034	0.0066	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Indeno[1,2,3-cd]pyrene	<0.034		0.034	0.0088	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Dibenz(a,h)anthracene	<0.034		0.034	0.0066	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
Benzo[g,h,i]perylene	0.014	J	0.034	0.011	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1
3 & 4 Methylphenol	<0.17		0.17	0.057	mg/Kg	☼	04/11/16 07:04	04/14/16 01:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	126		40 - 130	04/11/16 07:04	04/14/16 01:11	1
Phenol-d5	114		36 - 123	04/11/16 07:04	04/14/16 01:11	1
Nitrobenzene-d5	124		33 - 124	04/11/16 07:04	04/14/16 01:11	1
2-Fluorobiphenyl	137	X	42 - 115	04/11/16 07:04	04/14/16 01:11	1
2,4,6-Tribromophenol	110		25 - 130	04/11/16 07:04	04/14/16 01:11	1
Terphenyl-d14	133		25 - 150	04/11/16 07:04	04/14/16 01:11	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.49	J	1.0	0.22	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Arsenic	12		0.52	0.24	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Barium	46		0.52	0.095	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Beryllium	0.58		0.21	0.045	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Boron	11		2.6	0.36	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Cadmium	<0.10		0.10	0.030	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Calcium	75000	B	100	33	mg/Kg	☼	04/08/16 15:37	04/11/16 15:45	10
Chromium	15	B	0.52	0.089	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Cobalt	12		0.26	0.059	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Copper	18		0.52	0.11	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Iron	20000		10	4.0	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Lead	11		0.26	0.13	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Magnesium	24000		5.2	2.1	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Manganese	400	B	0.52	0.10	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Nickel	35		0.52	0.14	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Potassium	2200		26	4.2	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Selenium	<0.52		0.52	0.26	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Silver	<0.26		0.26	0.061	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Sodium	330		52	6.8	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Thallium	<0.52		0.52	0.26	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Vanadium	18		0.26	0.076	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1
Zinc	52		1.0	0.33	mg/Kg	☼	04/08/16 15:37	04/09/16 17:45	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.59		0.50	0.050	mg/L		04/12/16 14:17	04/13/16 12:00	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:17	04/13/16 12:00	1
Boron	0.064	J	0.50	0.050	mg/L		04/12/16 14:17	04/13/16 12:00	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B06 (8-15)

Lab Sample ID: 500-109908-8

Date Collected: 04/07/16 13:55

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 92.3

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		04/12/16 14:17	04/13/16 12:00	1
Chromium	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:00	1
Cobalt	0.013	J	0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:00	1
Iron	<0.40		0.40	0.20	mg/L		04/12/16 14:17	04/13/16 12:00	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/12/16 14:17	04/13/16 12:00	1
Manganese	1.9		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:00	1
Nickel	0.028		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:00	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:17	04/13/16 12:00	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:00	1
Zinc	0.039	J B	0.50	0.020	mg/L		04/12/16 14:17	04/13/16 12:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.25	J	0.50	0.050	mg/L		04/12/16 14:16	04/13/16 11:07	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:16	04/13/16 11:07	1
Boron	0.19		0.10	0.050	mg/L		04/12/16 14:16	04/13/16 11:07	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/12/16 14:16	04/13/16 11:07	1
Chromium	0.076		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:07	1
Cobalt	0.027		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:07	1
Iron	60	B	0.40	0.20	mg/L		04/12/16 14:16	04/13/16 11:07	1
Lead	0.024		0.0075	0.0075	mg/L		04/12/16 14:16	04/13/16 11:07	1
Manganese	0.51		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:07	1
Nickel	0.078		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:07	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:16	04/13/16 11:07	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:07	1
Zinc	0.18	J B	0.50	0.020	mg/L		04/12/16 14:16	04/13/16 11:07	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		04/12/16 14:17	04/13/16 12:39	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:17	04/13/16 12:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/12/16 14:16	04/13/16 13:52	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:16	04/13/16 13:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/12/16 16:30	04/13/16 10:35	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		04/12/16 16:30	04/13/16 09:48	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023		0.016	0.0082	mg/Kg	☼	04/08/16 15:45	04/11/16 09:50	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B06 (8-15)

Lab Sample ID: 500-109908-8

Date Collected: 04/07/16 13:55

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 92.3

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.11		0.200	0.200	SU			04/12/16 17:19	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B06 (8-15)D

Lab Sample ID: 500-109908-9

Date Collected: 04/07/16 13:55

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 84.3

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	☼	04/08/16 08:45	04/11/16 18:22	1
Benzene	<0.0037		0.0037	0.00083	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Bromodichloromethane	<0.0037		0.0037	0.00063	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Bromoform	<0.0037		0.0037	0.00076	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Bromomethane	<0.0037		0.0037	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
2-Butanone (MEK)	<0.0037		0.0037	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Carbon disulfide	<0.0037		0.0037	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Carbon tetrachloride	<0.0037		0.0037	0.00080	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Chlorobenzene	<0.0037		0.0037	0.00088	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Chloroethane	<0.0037		0.0037	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Chloroform	<0.0037		0.0037	0.00073	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Chloromethane	<0.0037		0.0037	0.00090	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
cis-1,2-Dichloroethene	<0.0037		0.0037	0.00076	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
cis-1,3-Dichloropropene	<0.0037		0.0037	0.00085	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Dibromochloromethane	<0.0037		0.0037	0.00043	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
1,1-Dichloroethane	<0.0037		0.0037	0.00077	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
1,2-Dichloroethane	<0.0037		0.0037	0.00055	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
1,1-Dichloroethene	<0.0037		0.0037	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
1,2-Dichloropropane	<0.0037		0.0037	0.00098	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
1,3-Dichloropropane, Total	<0.0037		0.0037	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Ethylbenzene	<0.0037		0.0037	0.00093	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
2-Hexanone	<0.0037		0.0037	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Methylene Chloride	<0.0037		0.0037	0.0028	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
4-Methyl-2-pentanone (MIBK)	<0.0037		0.0037	0.00077	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Methyl tert-butyl ether	<0.0037		0.0037	0.00088	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Styrene	<0.0037		0.0037	0.00088	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
1,1,2,2-Tetrachloroethane	<0.0037		0.0037	0.00059	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Tetrachloroethene	<0.0037		0.0037	0.00078	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Toluene	<0.0037		0.0037	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
trans-1,2-Dichloroethene	<0.0037		0.0037	0.00093	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
trans-1,3-Dichloropropene	<0.0037		0.0037	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
1,1,1-Trichloroethane	<0.0037		0.0037	0.00087	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
1,1,2-Trichloroethane	<0.0037		0.0037	0.00072	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Trichloroethene	<0.0037		0.0037	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Vinyl acetate	<0.0037		0.0037	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Vinyl chloride	<0.0037		0.0037	0.00089	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1
Xylenes, Total	<0.0075		0.0075	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 18:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 120	04/08/16 08:45	04/11/16 18:22	1
Dibromofluoromethane	113		75 - 120	04/08/16 08:45	04/11/16 18:22	1
1,2-Dichloroethane-d4 (Surr)	109		69 - 134	04/08/16 08:45	04/11/16 18:22	1
Toluene-d8 (Surr)	120		75 - 123	04/08/16 08:45	04/11/16 18:22	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	☼	04/11/16 07:04	04/14/16 01:39	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B06 (8-15)D

Lab Sample ID: 500-109908-9

Date Collected: 04/07/16 13:55

Matrix: Solid

Date Received: 04/07/16 16:50

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	<0.20		0.20	0.047	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Naphthalene	0.012	J	0.039	0.0060	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
2,4,6-Trichlorophenol	<0.39	*	0.39	0.13	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
2-Methylnaphthalene	0.0080	J	0.039	0.0072	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
2-Chloronaphthalene	<0.20	*	0.20	0.043	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
2,6-Dinitrotoluene	<0.20	*	0.20	0.077	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Dimethyl phthalate	<0.20	*	0.20	0.051	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Acenaphthylene	<0.039	*	0.039	0.0052	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
2,4-Dinitrotoluene	<0.20	*	0.20	0.062	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Acenaphthene	<0.039	*	0.039	0.0070	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Dibenzofuran	<0.20	*	0.20	0.046	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Fluorene	<0.039	*	0.039	0.0055	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
4-Nitroaniline	<0.39	*	0.39	0.16	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Diethyl phthalate	<0.20	*	0.20	0.066	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
4-Chlorophenyl phenyl ether	<0.20	*	0.20	0.046	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
N-Nitrosodiphenylamine	<0.20	*	0.20	0.046	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Phenanthrene	0.029	J	0.039	0.0054	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Carbazole	<0.20	*	0.20	0.098	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Fluoranthene	0.011	J	0.039	0.0072	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Pyrene	0.017	J	0.039	0.0078	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Benzo[a]anthracene	0.0054	J	0.039	0.0053	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B06 (8-15)D

Lab Sample ID: 500-109908-9

Date Collected: 04/07/16 13:55

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.019	J	0.039	0.011	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Benzo[b]fluoranthene	0.011	J	0.039	0.0084	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
Benzo[g,h,i]perylene	0.014	J	0.039	0.013	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	04/11/16 07:04	04/14/16 01:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	117		40 - 130	04/11/16 07:04	04/14/16 01:39	1
Phenol-d5	108		36 - 123	04/11/16 07:04	04/14/16 01:39	1
Nitrobenzene-d5	120		33 - 124	04/11/16 07:04	04/14/16 01:39	1
2-Fluorobiphenyl	130	X	42 - 115	04/11/16 07:04	04/14/16 01:39	1
2,4,6-Tribromophenol	96		25 - 130	04/11/16 07:04	04/14/16 01:39	1
Terphenyl-d14	130		25 - 150	04/11/16 07:04	04/14/16 01:39	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.43	J	1.1	0.23	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Arsenic	8.2		0.56	0.26	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Barium	39		0.56	0.10	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Beryllium	0.60		0.23	0.049	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Boron	11		2.8	0.39	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Cadmium	0.20	B	0.11	0.033	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Calcium	73000	B	110	36	mg/Kg	☼	04/08/16 15:37	04/11/16 15:49	10
Chromium	15	B	0.56	0.097	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Cobalt	12		0.28	0.064	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Copper	22		0.56	0.12	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Iron	19000		11	4.3	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Lead	13		0.28	0.14	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Magnesium	26000		5.6	2.3	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Manganese	320	B	0.56	0.11	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Nickel	33		0.56	0.15	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Potassium	2400		28	4.6	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Selenium	<0.56		0.56	0.28	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Silver	<0.28		0.28	0.066	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Sodium	320		56	7.4	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Vanadium	18		0.28	0.082	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1
Zinc	74		1.1	0.36	mg/Kg	☼	04/08/16 15:37	04/09/16 17:50	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.59		0.50	0.050	mg/L		04/12/16 14:17	04/13/16 12:06	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:17	04/13/16 12:06	1
Boron	0.10	J	0.50	0.050	mg/L		04/12/16 14:17	04/13/16 12:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B06 (8-15)D

Lab Sample ID: 500-109908-9

Date Collected: 04/07/16 13:55

Matrix: Solid

Date Received: 04/07/16 16:50

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		04/12/16 14:17	04/13/16 12:06	1
Chromium	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:06	1
Cobalt	0.013	J	0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:06	1
Iron	<0.40		0.40	0.20	mg/L		04/12/16 14:17	04/13/16 12:06	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/12/16 14:17	04/13/16 12:06	1
Manganese	1.9		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:06	1
Nickel	0.024	J	0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:06	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:17	04/13/16 12:06	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:06	1
Zinc	0.038	J B	0.50	0.020	mg/L		04/12/16 14:17	04/13/16 12:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.32	J	0.50	0.050	mg/L		04/12/16 14:16	04/13/16 11:40	1
Beryllium	0.0045		0.0040	0.0040	mg/L		04/12/16 14:16	04/13/16 11:40	1
Boron	0.21		0.10	0.050	mg/L		04/12/16 14:16	04/13/16 11:40	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/12/16 14:16	04/13/16 11:40	1
Chromium	0.10		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:40	1
Cobalt	0.038		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:40	1
Iron	78	B	0.40	0.20	mg/L		04/12/16 14:16	04/13/16 11:40	1
Lead	0.031		0.0075	0.0075	mg/L		04/12/16 14:16	04/13/16 11:40	1
Manganese	0.73		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:40	1
Nickel	0.10		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:40	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:16	04/13/16 11:40	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:40	1
Zinc	0.17	J B	0.50	0.020	mg/L		04/12/16 14:16	04/13/16 11:40	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		04/12/16 14:17	04/13/16 12:42	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:17	04/13/16 12:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/12/16 14:16	04/13/16 13:56	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:16	04/13/16 13:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/12/16 16:30	04/13/16 10:37	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		04/12/16 16:30	04/13/16 09:50	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.018	0.0095	mg/Kg	☼	04/08/16 15:45	04/11/16 09:52	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B06 (8-15)D

Lab Sample ID: 500-109908-9

Date Collected: 04/07/16 13:55

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 84.3

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.26		0.200	0.200	SU			04/12/16 17:22	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B02 (0-5)

Lab Sample ID: 500-109908-10

Date Collected: 04/07/16 14:26

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 78.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.032		0.018	0.0036	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Benzene	<0.0046		0.0046	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Bromodichloromethane	<0.0046		0.0046	0.00078	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Bromoform	<0.0046		0.0046	0.00094	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
2-Butanone (MEK)	<0.0046		0.0046	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Carbon disulfide	<0.0046		0.0046	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Carbon tetrachloride	<0.0046		0.0046	0.00099	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Chlorobenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Chloroethane	<0.0046		0.0046	0.0019	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Chloroform	<0.0046		0.0046	0.00090	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Chloromethane	<0.0046		0.0046	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
cis-1,2-Dichloroethene	<0.0046		0.0046	0.00094	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
cis-1,3-Dichloropropene	<0.0046		0.0046	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Dibromochloromethane	<0.0046		0.0046	0.00053	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
1,1-Dichloroethane	<0.0046		0.0046	0.00095	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
1,2-Dichloroethane	<0.0046		0.0046	0.00068	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
1,1-Dichloroethene	<0.0046		0.0046	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
1,2-Dichloropropane	<0.0046		0.0046	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
1,3-Dichloropropane, Total	<0.0046		0.0046	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Ethylbenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Methylene Chloride	<0.0046		0.0046	0.0035	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.00095	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Methyl tert-butyl ether	<0.0046		0.0046	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Styrene	<0.0046		0.0046	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
1,1,2,2-Tetrachloroethane	<0.0046		0.0046	0.00073	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Tetrachloroethene	<0.0046		0.0046	0.00096	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Toluene	<0.0046		0.0046	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
trans-1,2-Dichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
trans-1,3-Dichloropropene	<0.0046		0.0046	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
1,1,1-Trichloroethane	<0.0046		0.0046	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
1,1,2-Trichloroethane	<0.0046		0.0046	0.00089	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Trichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Vinyl acetate	<0.0046		0.0046	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Vinyl chloride	<0.0046		0.0046	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1
Xylenes, Total	<0.0092		0.0092	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 18:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 120	04/08/16 08:45	04/11/16 18:48	1
Dibromofluoromethane	108		75 - 120	04/08/16 08:45	04/11/16 18:48	1
1,2-Dichloroethane-d4 (Surr)	104		69 - 134	04/08/16 08:45	04/11/16 18:48	1
Toluene-d8 (Surr)	119		75 - 123	04/08/16 08:45	04/11/16 18:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.092	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
1,3-Dichlorobenzene	<0.21		0.21	0.047	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B02 (0-5)

Lab Sample ID: 500-109908-10

Date Collected: 04/07/16 14:26

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 78.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.050	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
2-Methylphenol	<0.21		0.21	0.067	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
N-Nitrosodi-n-propylamine	<0.084		0.084	0.051	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Hexachloroethane	<0.21		0.21	0.063	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
2-Chlorophenol	<0.21		0.21	0.071	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.045	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Isophorone	<0.21		0.21	0.047	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Naphthalene	0.011	J	0.041	0.0064	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
2,4-Dichlorophenol	<0.41		0.41	0.098	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
4-Chloroaniline	<0.84		0.84	0.19	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
2,4,6-Trichlorophenol	<0.41	*	0.41	0.14	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
2,4,5-Trichlorophenol	<0.41		0.41	0.095	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Hexachlorocyclopentadiene	<0.84		0.84	0.24	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
2-Methylnaphthalene	<0.041		0.041	0.0076	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
2-Nitroaniline	<0.21		0.21	0.056	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
2-Chloronaphthalene	<0.21	*	0.21	0.046	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
2,6-Dinitrotoluene	<0.21	*	0.21	0.082	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
2-Nitrophenol	<0.41		0.41	0.098	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Dimethyl phthalate	<0.21	*	0.21	0.054	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
2,4-Dinitrophenol	<0.84		0.84	0.73	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Acenaphthylene	<0.041	*	0.041	0.0055	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
2,4-Dinitrotoluene	<0.21	*	0.21	0.066	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Acenaphthene	<0.041	*	0.041	0.0075	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Dibenzofuran	<0.21	*	0.21	0.049	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
4-Nitrophenol	<0.84		0.84	0.39	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Fluorene	<0.041	*	0.041	0.0058	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
4-Nitroaniline	<0.41	*	0.41	0.17	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.055	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Hexachlorobenzene	<0.084		0.084	0.0096	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Diethyl phthalate	<0.21	*	0.21	0.070	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
4-Chlorophenyl phenyl ether	<0.21	*	0.21	0.048	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Pentachlorophenol	<0.84		0.84	0.67	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
N-Nitrosodiphenylamine	<0.21	*	0.21	0.049	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
4,6-Dinitro-2-methylphenol	<0.84		0.84	0.33	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Phenanthrene	0.0079	J	0.041	0.0058	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Anthracene	<0.041		0.041	0.0069	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Carbazole	<0.21	*	0.21	0.10	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Fluoranthene	0.012	J	0.041	0.0077	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Pyrene	0.011	J	0.041	0.0082	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Butyl benzyl phthalate	<0.21		0.21	0.079	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Benzo[a]anthracene	0.0065	J	0.041	0.0056	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B02 (0-5)

Lab Sample ID: 500-109908-10

Date Collected: 04/07/16 14:26

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 78.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.041		0.041	0.011	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.058	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.076	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Di-n-octyl phthalate	<0.21		0.21	0.068	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Benzo[b]fluoranthene	<0.041		0.041	0.0089	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Benzo[a]pyrene	<0.041		0.041	0.0080	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0080	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1
3 & 4 Methylphenol	<0.21		0.21	0.069	mg/Kg	☼	04/11/16 07:04	04/14/16 02:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	118		40 - 130	04/11/16 07:04	04/14/16 02:06	1
Phenol-d5	107		36 - 123	04/11/16 07:04	04/14/16 02:06	1
Nitrobenzene-d5	118		33 - 124	04/11/16 07:04	04/14/16 02:06	1
2-Fluorobiphenyl	121	X	42 - 115	04/11/16 07:04	04/14/16 02:06	1
2,4,6-Tribromophenol	94		25 - 130	04/11/16 07:04	04/14/16 02:06	1
Terphenyl-d14	130		25 - 150	04/11/16 07:04	04/14/16 02:06	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.35	J	1.3	0.26	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Arsenic	6.7		0.63	0.29	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Barium	65		0.63	0.11	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Beryllium	0.67		0.25	0.054	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Boron	5.9		3.1	0.44	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Cadmium	0.046	J B	0.13	0.036	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Calcium	20000	B	13	4.0	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Chromium	15	B	0.63	0.11	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Cobalt	10		0.31	0.071	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Copper	19		0.63	0.14	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Iron	18000		13	4.8	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Lead	15		0.31	0.16	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Magnesium	12000		6.3	2.5	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Manganese	370	B	0.63	0.12	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Nickel	23		0.63	0.17	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Potassium	1500		31	5.1	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Selenium	0.36	J	0.63	0.31	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Silver	<0.31		0.31	0.073	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Sodium	360		63	8.3	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Thallium	<0.63		0.63	0.31	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Vanadium	22		0.31	0.091	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1
Zinc	57		1.3	0.40	mg/Kg	☼	04/08/16 15:37	04/09/16 17:55	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.63		0.50	0.050	mg/L		04/12/16 14:17	04/13/16 12:11	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:17	04/13/16 12:11	1
Boron	0.086	J	0.50	0.050	mg/L		04/12/16 14:17	04/13/16 12:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B02 (0-5)

Lab Sample ID: 500-109908-10

Date Collected: 04/07/16 14:26

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 78.4

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		04/12/16 14:17	04/13/16 12:11	1
Chromium	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:11	1
Cobalt	0.019	J	0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:11	1
Iron	<0.40		0.40	0.20	mg/L		04/12/16 14:17	04/13/16 12:11	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/12/16 14:17	04/13/16 12:11	1
Manganese	7.5		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:11	1
Nickel	0.014	J	0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:11	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:17	04/13/16 12:11	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:11	1
Zinc	0.24	J B	0.50	0.020	mg/L		04/12/16 14:17	04/13/16 12:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.28	J	0.50	0.050	mg/L		04/12/16 14:16	04/13/16 11:47	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:16	04/13/16 11:47	1
Boron	0.13		0.10	0.050	mg/L		04/12/16 14:16	04/13/16 11:47	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/12/16 14:16	04/13/16 11:47	1
Chromium	0.075		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:47	1
Cobalt	0.027		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:47	1
Iron	77	B	0.40	0.20	mg/L		04/12/16 14:16	04/13/16 11:47	1
Lead	0.039		0.0075	0.0075	mg/L		04/12/16 14:16	04/13/16 11:47	1
Manganese	0.57		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:47	1
Nickel	0.081		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:47	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:16	04/13/16 11:47	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:47	1
Zinc	0.18	J B	0.50	0.020	mg/L		04/12/16 14:16	04/13/16 11:47	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		04/12/16 14:17	04/13/16 12:46	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:17	04/13/16 12:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/12/16 14:16	04/13/16 13:59	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:16	04/13/16 13:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/12/16 16:30	04/13/16 10:39	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		04/12/16 16:30	04/13/16 09:52	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.035		0.021	0.011	mg/Kg	☼	04/08/16 15:45	04/11/16 09:54	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B02 (0-5)

Lab Sample ID: 500-109908-10

Date Collected: 04/07/16 14:26

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 78.4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.48		0.200	0.200	SU			04/12/16 17:26	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B02 (5-10)

Lab Sample ID: 500-109908-11

Date Collected: 04/07/16 14:30

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 79.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.021		0.018	0.0035	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Benzene	<0.0045		0.0045	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Bromodichloromethane	<0.0045		0.0045	0.00077	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Bromoform	<0.0045		0.0045	0.00093	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Carbon disulfide	<0.0045		0.0045	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Carbon tetrachloride	<0.0045		0.0045	0.00097	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Chloroethane	<0.0045		0.0045	0.0019	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Chloroform	<0.0045		0.0045	0.00089	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00093	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Dibromochloromethane	<0.0045		0.0045	0.00052	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
1,1-Dichloroethane	<0.0045		0.0045	0.00094	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
1,2-Dichloroethane	<0.0045		0.0045	0.00067	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
1,1-Dichloroethene	<0.0045		0.0045	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Methylene Chloride	<0.0045		0.0045	0.0034	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00094	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Styrene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
1,1,1,2-Tetrachloroethane	<0.0045		0.0045	0.00072	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Tetrachloroethene	<0.0045		0.0045	0.00095	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00088	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Vinyl acetate	<0.0045		0.0045	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1
Xylenes, Total	<0.0091		0.0091	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 19:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 120	04/08/16 08:45	04/11/16 19:13	1
Dibromofluoromethane	109		75 - 120	04/08/16 08:45	04/11/16 19:13	1
1,2-Dichloroethane-d4 (Surr)	104		69 - 134	04/08/16 08:45	04/11/16 19:13	1
Toluene-d8 (Surr)	117		75 - 123	04/08/16 08:45	04/11/16 19:13	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	☼	04/11/16 07:04	04/14/16 16:32	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B02 (5-10)

Lab Sample ID: 500-109908-11

Date Collected: 04/07/16 14:30

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 79.8

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	0.049	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Naphthalene	0.018	J	0.040	0.0062	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
2,4,6-Trichlorophenol	<0.40	*	0.40	0.14	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
2,4,5-Trichlorophenol	<0.40		0.40	0.093	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
2-Methylnaphthalene	<0.040		0.040	0.0075	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
2-Chloronaphthalene	<0.20	*	0.20	0.045	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
2,6-Dinitrotoluene	<0.20	*	0.20	0.080	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Dimethyl phthalate	<0.20	*	0.20	0.053	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
2,4-Dinitrophenol	<0.82		0.82	0.71	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Acenaphthylene	<0.040	*	0.040	0.0054	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
2,4-Dinitrotoluene	<0.20	*	0.20	0.065	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Acenaphthene	<0.040	*	0.040	0.0073	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Dibenzofuran	<0.20	*	0.20	0.048	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Fluorene	<0.040	*	0.040	0.0057	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
4-Nitroaniline	<0.40	*	0.40	0.17	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.054	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Diethyl phthalate	<0.20	*	0.20	0.069	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
4-Chlorophenyl phenyl ether	<0.20	*	0.20	0.047	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
N-Nitrosodiphenylamine	<0.20	*	0.20	0.048	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Phenanthrene	<0.040		0.040	0.0057	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Carbazole	<0.20	*	0.20	0.10	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Pyrene	<0.040		0.040	0.0081	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Benzo[a]anthracene	<0.040		0.040	0.0055	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B02 (5-10)

Lab Sample ID: 500-109908-11

Date Collected: 04/07/16 14:30

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 79.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Benzo[b]fluoranthene	<0.040		0.040	0.0088	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Benzo[a]pyrene	<0.040		0.040	0.0079	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.011	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	04/11/16 07:04	04/14/16 16:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	55		40 - 130	04/11/16 07:04	04/14/16 16:32	1
Phenol-d5	58		36 - 123	04/11/16 07:04	04/14/16 16:32	1
Nitrobenzene-d5	53		33 - 124	04/11/16 07:04	04/14/16 16:32	1
2-Fluorobiphenyl	72		42 - 115	04/11/16 07:04	04/14/16 16:32	1
2,4,6-Tribromophenol	67		25 - 130	04/11/16 07:04	04/14/16 16:32	1
Terphenyl-d14	82		25 - 150	04/11/16 07:04	04/14/16 16:32	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.46	J	1.2	0.24	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Arsenic	10		0.58	0.27	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Barium	57		0.58	0.11	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Beryllium	0.65		0.23	0.051	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Boron	9.4		2.9	0.41	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Cadmium	<0.12		0.12	0.034	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Calcium	75000	B	120	38	mg/Kg	☼	04/08/16 15:37	04/11/16 15:54	10
Chromium	16	B	0.58	0.10	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Cobalt	14		0.29	0.066	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Copper	24		0.58	0.13	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Iron	20000		12	4.5	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Lead	16		0.29	0.15	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Magnesium	26000		5.8	2.4	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Manganese	520	B	0.58	0.12	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Nickel	34		0.58	0.16	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Potassium	2000		29	4.8	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Selenium	0.65		0.58	0.29	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Sodium	330		58	7.7	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Vanadium	21		0.29	0.085	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1
Zinc	58		1.2	0.37	mg/Kg	☼	04/08/16 15:37	04/09/16 18:00	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.63		0.50	0.050	mg/L		04/12/16 14:17	04/13/16 12:16	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:17	04/13/16 12:16	1
Boron	<0.50		0.50	0.050	mg/L		04/12/16 14:17	04/13/16 12:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B02 (5-10)

Lab Sample ID: 500-109908-11

Date Collected: 04/07/16 14:30

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 79.8

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		04/12/16 14:17	04/13/16 12:16	1
Chromium	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:16	1
Cobalt	0.016	J	0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:16	1
Iron	<0.40		0.40	0.20	mg/L		04/12/16 14:17	04/13/16 12:16	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/12/16 14:17	04/13/16 12:16	1
Manganese	6.1		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:16	1
Nickel	0.015	J	0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:16	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:17	04/13/16 12:16	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:16	1
Zinc	0.033	J B	0.50	0.020	mg/L		04/12/16 14:17	04/13/16 12:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.060	J	0.50	0.050	mg/L		04/12/16 14:16	04/13/16 11:53	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:16	04/13/16 11:53	1
Boron	0.077	J	0.10	0.050	mg/L		04/12/16 14:16	04/13/16 11:53	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/12/16 14:16	04/13/16 11:53	1
Chromium	0.010	J	0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:53	1
Cobalt	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:53	1
Iron	8.4	B	0.40	0.20	mg/L		04/12/16 14:16	04/13/16 11:53	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/12/16 14:16	04/13/16 11:53	1
Manganese	0.16		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:53	1
Nickel	0.010	J	0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:53	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:16	04/13/16 11:53	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 11:53	1
Zinc	0.021	J B	0.50	0.020	mg/L		04/12/16 14:16	04/13/16 11:53	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		04/12/16 14:17	04/13/16 12:49	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:17	04/13/16 12:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/12/16 14:16	04/13/16 14:02	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:16	04/13/16 14:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/12/16 16:30	04/13/16 10:41	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		04/12/16 16:30	04/13/16 09:54	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.035		0.019	0.0099	mg/Kg	☼	04/08/16 15:45	04/11/16 09:56	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B02 (5-10)

Lab Sample ID: 500-109908-11

Date Collected: 04/07/16 14:30

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 79.8

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.51		0.200	0.200	SU			04/12/16 17:29	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B03 (0-5)

Lab Sample ID: 500-109908-12

Date Collected: 04/07/16 15:00

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 79.9

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	☼	04/08/16 08:45	04/11/16 19:39	1
Benzene	<0.0047		0.0047	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Bromodichloromethane	<0.0047		0.0047	0.00080	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Bromoform	<0.0047		0.0047	0.00096	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Bromomethane	<0.0047		0.0047	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
2-Butanone (MEK)	<0.0047		0.0047	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Carbon disulfide	<0.0047		0.0047	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Carbon tetrachloride	<0.0047		0.0047	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Chlorobenzene	<0.0047		0.0047	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Chloroethane	<0.0047		0.0047	0.0020	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Chloroform	<0.0047		0.0047	0.00092	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Chloromethane	<0.0047		0.0047	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
cis-1,2-Dichloroethene	<0.0047		0.0047	0.00096	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
cis-1,3-Dichloropropene	<0.0047		0.0047	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Dibromochloromethane	<0.0047		0.0047	0.00054	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
1,1-Dichloroethane	<0.0047		0.0047	0.00097	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
1,2-Dichloroethane	<0.0047		0.0047	0.00070	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
1,1-Dichloroethene	<0.0047		0.0047	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
1,2-Dichloropropane	<0.0047		0.0047	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
1,3-Dichloropropane, Total	<0.0047		0.0047	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Ethylbenzene	<0.0047		0.0047	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Methylene Chloride	<0.0047		0.0047	0.0036	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.00097	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Methyl tert-butyl ether	<0.0047		0.0047	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Styrene	<0.0047		0.0047	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
1,1,2,2-Tetrachloroethane	<0.0047		0.0047	0.00075	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Tetrachloroethene	<0.0047		0.0047	0.00098	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Toluene	<0.0047		0.0047	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
trans-1,2-Dichloroethene	<0.0047		0.0047	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
trans-1,3-Dichloropropene	<0.0047		0.0047	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
1,1,1-Trichloroethane	<0.0047		0.0047	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
1,1,2-Trichloroethane	<0.0047		0.0047	0.00091	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Trichloroethene	<0.0047		0.0047	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Vinyl acetate	<0.0047		0.0047	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Vinyl chloride	<0.0047		0.0047	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1
Xylenes, Total	<0.0094		0.0094	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 19:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 120	04/08/16 08:45	04/11/16 19:39	1
Dibromofluoromethane	111		75 - 120	04/08/16 08:45	04/11/16 19:39	1
1,2-Dichloroethane-d4 (Surr)	106		69 - 134	04/08/16 08:45	04/11/16 19:39	1
Toluene-d8 (Surr)	116		75 - 123	04/08/16 08:45	04/11/16 19:39	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	☼	04/18/16 08:10	04/18/16 15:56	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B03 (0-5)

Lab Sample ID: 500-109908-12

Date Collected: 04/07/16 15:00

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 79.9

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	☼	04/18/16 08:10	04/18/16 15:56	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Acenaphthylene	0.0071	J	0.039	0.0052	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Acenaphthene	0.037	J	0.039	0.0071	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Fluorene	0.029	J	0.039	0.0055	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Phenanthrene	0.63		0.039	0.0055	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Anthracene	0.088		0.039	0.0066	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Carbazole	<0.20	*	0.20	0.098	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Fluoranthene	1.4		0.039	0.0073	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Pyrene	1.6		0.039	0.0078	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Benzo[a]anthracene	0.65		0.039	0.0053	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B03 (0-5)

Lab Sample ID: 500-109908-12

Date Collected: 04/07/16 15:00

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 79.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.88		0.039	0.011	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Benzo[b]fluoranthene	1.3		0.039	0.0085	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Benzo[k]fluoranthene	0.55		0.039	0.012	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Benzo[a]pyrene	0.84		0.039	0.0076	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Indeno[1,2,3-cd]pyrene	0.48		0.039	0.010	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Dibenz(a,h)anthracene	0.11		0.039	0.0076	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
Benzo[g,h,i]perylene	0.44		0.039	0.013	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	04/18/16 08:10	04/18/16 15:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	67		40 - 130	04/18/16 08:10	04/18/16 15:56	1
Phenol-d5	65		36 - 123	04/18/16 08:10	04/18/16 15:56	1
Nitrobenzene-d5	60		33 - 124	04/18/16 08:10	04/18/16 15:56	1
2-Fluorobiphenyl	76		42 - 115	04/18/16 08:10	04/18/16 15:56	1
2,4,6-Tribromophenol	71		25 - 130	04/18/16 08:10	04/18/16 15:56	1
Terphenyl-d14	73		25 - 150	04/18/16 08:10	04/18/16 15:56	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.83	J	1.2	0.25	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Arsenic	8.2		0.60	0.28	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Barium	70		0.60	0.11	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Beryllium	0.67		0.24	0.052	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Boron	7.3		3.0	0.42	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Cadmium	0.36	B	0.12	0.035	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Calcium	21000	B	12	3.9	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Chromium	18	B	0.60	0.10	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Cobalt	10		0.30	0.068	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Copper	40		0.60	0.13	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Iron	18000		12	4.6	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Lead	90		0.30	0.15	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Magnesium	13000		6.0	2.4	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Manganese	370	B	0.60	0.12	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Nickel	25		0.60	0.16	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Potassium	1600		30	4.9	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Selenium	0.51	J	0.60	0.30	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Sodium	190		60	7.9	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Vanadium	22		0.30	0.088	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	1
Zinc	100		1.2	0.38	mg/Kg	☼	04/08/16 15:37	04/09/16 18:05	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		04/12/16 14:17	04/13/16 12:22	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:17	04/13/16 12:22	1
Boron	0.071	J	0.50	0.050	mg/L		04/12/16 14:17	04/13/16 12:22	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B03 (0-5)

Lab Sample ID: 500-109908-12

Date Collected: 04/07/16 15:00

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 79.9

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		04/12/16 14:17	04/13/16 12:22	1
Chromium	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:22	1
Cobalt	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:22	1
Iron	<0.40		0.40	0.20	mg/L		04/12/16 14:17	04/13/16 12:22	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/12/16 14:17	04/13/16 12:22	1
Manganese	0.12		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:22	1
Nickel	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:22	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:17	04/13/16 12:22	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:22	1
Zinc	0.21	J B	0.50	0.020	mg/L		04/12/16 14:17	04/13/16 12:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.23	J	0.50	0.050	mg/L		04/12/16 14:16	04/13/16 12:00	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:16	04/13/16 12:00	1
Boron	0.089	J	0.10	0.050	mg/L		04/12/16 14:16	04/13/16 12:00	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/12/16 14:16	04/13/16 12:00	1
Chromium	0.060		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:00	1
Cobalt	0.014	J	0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:00	1
Iron	61	B	0.40	0.20	mg/L		04/12/16 14:16	04/13/16 12:00	1
Lead	0.054		0.0075	0.0075	mg/L		04/12/16 14:16	04/13/16 12:00	1
Manganese	0.28		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:00	1
Nickel	0.055		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:00	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:16	04/13/16 12:00	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:00	1
Zinc	0.17	J B	0.50	0.020	mg/L		04/12/16 14:16	04/13/16 12:00	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		04/12/16 14:17	04/13/16 12:52	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:17	04/13/16 12:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/12/16 14:16	04/13/16 14:06	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:16	04/13/16 14:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/12/16 16:30	04/13/16 10:46	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		04/12/16 16:30	04/13/16 10:00	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.049		0.018	0.0096	mg/Kg	☼	04/08/16 15:45	04/11/16 09:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B03 (0-5)

Lab Sample ID: 500-109908-12

Date Collected: 04/07/16 15:00

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 79.9

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.43		0.200	0.200	SU			04/12/16 17:32	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B03 (5-10)

Lab Sample ID: 500-109908-13

Date Collected: 04/07/16 15:05

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 78.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0035	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Benzene	<0.0045		0.0045	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Bromodichloromethane	<0.0045		0.0045	0.00076	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Bromoform	<0.0045		0.0045	0.00092	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Carbon disulfide	<0.0045		0.0045	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Carbon tetrachloride	<0.0045		0.0045	0.00097	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Chloroethane	<0.0045		0.0045	0.0019	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Chloroform	<0.0045		0.0045	0.00088	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00092	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Dibromochloromethane	<0.0045		0.0045	0.00052	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
1,1-Dichloroethane	<0.0045		0.0045	0.00093	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
1,2-Dichloroethane	<0.0045		0.0045	0.00067	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
1,1-Dichloroethene	<0.0045		0.0045	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Methylene Chloride	<0.0045		0.0045	0.0034	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00093	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Styrene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
1,1,2,2-Tetrachloroethane	<0.0045		0.0045	0.00072	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Tetrachloroethene	<0.0045		0.0045	0.00094	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0010	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00087	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Vinyl acetate	<0.0045		0.0045	0.0012	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1
Xylenes, Total	<0.0090		0.0090	0.0017	mg/Kg	☼	04/08/16 08:45	04/11/16 20:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 120	04/08/16 08:45	04/11/16 20:03	1
Dibromofluoromethane	118		75 - 120	04/08/16 08:45	04/11/16 20:03	1
1,2-Dichloroethane-d4 (Surr)	113		69 - 134	04/08/16 08:45	04/11/16 20:03	1
Toluene-d8 (Surr)	113		75 - 123	04/08/16 08:45	04/11/16 20:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.091	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B03 (5-10)

Lab Sample ID: 500-109908-13

Date Collected: 04/07/16 15:05

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 78.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Naphthalene	0.0095	J	0.041	0.0063	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
2,4-Dichlorophenol	<0.41		0.41	0.098	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
2,4,6-Trichlorophenol	<0.41	*	0.41	0.14	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
2,4,5-Trichlorophenol	<0.41		0.41	0.094	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
2-Methylnaphthalene	<0.041		0.041	0.0076	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
2-Chloronaphthalene	<0.21	*	0.21	0.045	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
2,6-Dinitrotoluene	<0.21	*	0.21	0.081	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Dimethyl phthalate	<0.21	*	0.21	0.054	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
2,4-Dinitrophenol	<0.83		0.83	0.72	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Acenaphthylene	<0.041	*	0.041	0.0054	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
2,4-Dinitrotoluene	<0.21	*	0.21	0.065	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Acenaphthene	<0.041	*	0.041	0.0074	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Dibenzofuran	<0.21	*	0.21	0.048	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Fluorene	<0.041	*	0.041	0.0058	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
4-Nitroaniline	<0.41	*	0.41	0.17	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Hexachlorobenzene	<0.083		0.083	0.0095	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Diethyl phthalate	<0.21	*	0.21	0.070	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
4-Chlorophenyl phenyl ether	<0.21	*	0.21	0.048	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
N-Nitrosodiphenylamine	<0.21	*	0.21	0.048	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Phenanthrene	0.0074	J	0.041	0.0057	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Anthracene	<0.041		0.041	0.0069	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Carbazole	<0.21	*	0.21	0.10	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Fluoranthene	0.011	J	0.041	0.0076	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Pyrene	0.0093	J	0.041	0.0082	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Benzo[a]anthracene	0.0062	J	0.041	0.0055	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B03 (5-10)

Lab Sample ID: 500-109908-13

Date Collected: 04/07/16 15:05

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 78.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.041		0.041	0.011	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Benzo[b]fluoranthene	<0.041		0.041	0.0089	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Benzo[a]pyrene	<0.041		0.041	0.0080	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1
3 & 4 Methylphenol	<0.21		0.21	0.069	mg/Kg	☼	04/11/16 07:04	04/14/16 03:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	110		40 - 130	04/11/16 07:04	04/14/16 03:29	1
Phenol-d5	100		36 - 123	04/11/16 07:04	04/14/16 03:29	1
Nitrobenzene-d5	107		33 - 124	04/11/16 07:04	04/14/16 03:29	1
2-Fluorobiphenyl	119	X	42 - 115	04/11/16 07:04	04/14/16 03:29	1
2,4,6-Tribromophenol	112		25 - 130	04/11/16 07:04	04/14/16 03:29	1
Terphenyl-d14	130		25 - 150	04/11/16 07:04	04/14/16 03:29	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.35	J	1.2	0.25	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Arsenic	7.5		0.61	0.28	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Barium	75		0.61	0.11	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Beryllium	0.84		0.24	0.053	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Boron	6.1		3.1	0.43	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Cadmium	<0.12		0.12	0.035	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Calcium	15000	B	12	3.9	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Chromium	19	B	0.61	0.11	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Cobalt	13		0.31	0.069	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Copper	23		0.61	0.13	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Iron	22000		12	4.7	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Lead	16		0.31	0.15	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Magnesium	11000		6.1	2.5	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Manganese	450	B	0.61	0.12	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Nickel	39		0.61	0.17	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Potassium	1800		31	5.0	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Selenium	0.41	J	0.61	0.30	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Silver	<0.31		0.31	0.072	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Sodium	220		61	8.1	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Thallium	0.41	J	0.61	0.30	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Vanadium	24		0.31	0.089	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1
Zinc	67		1.2	0.39	mg/Kg	☼	04/08/16 15:37	04/09/16 18:10	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.44	J	0.50	0.050	mg/L		04/12/16 14:17	04/13/16 12:27	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/12/16 14:17	04/13/16 12:27	1
Boron	0.055	J	0.50	0.050	mg/L		04/12/16 14:17	04/13/16 12:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B03 (5-10)

Lab Sample ID: 500-109908-13

Date Collected: 04/07/16 15:05

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 78.7

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		04/12/16 14:17	04/13/16 12:27	1
Chromium	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:27	1
Cobalt	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:27	1
Iron	<0.40		0.40	0.20	mg/L		04/12/16 14:17	04/13/16 12:27	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/12/16 14:17	04/13/16 12:27	1
Manganese	0.13		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:27	1
Nickel	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:27	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:17	04/13/16 12:27	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:17	04/13/16 12:27	1
Zinc	<0.50		0.50	0.020	mg/L		04/12/16 14:17	04/13/16 12:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.39	J	0.50	0.050	mg/L		04/12/16 14:16	04/13/16 12:07	1
Beryllium	0.0046		0.0040	0.0040	mg/L		04/12/16 14:16	04/13/16 12:07	1
Boron	0.14		0.10	0.050	mg/L		04/12/16 14:16	04/13/16 12:07	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/12/16 14:16	04/13/16 12:07	1
Chromium	0.10		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:07	1
Cobalt	0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:07	1
Iron	100	B	0.40	0.20	mg/L		04/12/16 14:16	04/13/16 12:07	1
Lead	0.043		0.0075	0.0075	mg/L		04/12/16 14:16	04/13/16 12:07	1
Manganese	0.45		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:07	1
Nickel	0.099		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:07	1
Selenium	<0.050		0.050	0.020	mg/L		04/12/16 14:16	04/13/16 12:07	1
Silver	<0.025		0.025	0.010	mg/L		04/12/16 14:16	04/13/16 12:07	1
Zinc	0.25	J B	0.50	0.020	mg/L		04/12/16 14:16	04/13/16 12:07	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		04/12/16 14:17	04/13/16 12:56	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/12/16 14:17	04/13/16 12:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/12/16 14:16	04/13/16 14:09	1
Thallium	0.0024		0.0020	0.0020	mg/L		04/12/16 14:16	04/13/16 14:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/12/16 16:30	04/13/16 10:48	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		04/12/16 16:30	04/13/16 10:02	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.037		0.018	0.0096	mg/Kg	☼	04/08/16 15:45	04/11/16 10:01	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Client Sample ID: 2028V-20-B03 (5-10)

Lab Sample ID: 500-109908-13

Date Collected: 04/07/16 15:05

Matrix: Solid

Date Received: 04/07/16 16:50

Percent Solids: 78.7

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.63		0.200	0.200	SU			04/12/16 17:35	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

Qualifiers

GC/MS Semi VOA

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

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F2	MS/MSD RPD exceeds control limits
B	Compound was found in the blank and sample.
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.
E	Result exceeded calibration range.

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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109908-1

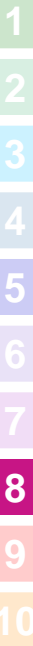
Laboratory: TestAmerica Chicago

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	04-30-17

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 61
Phone: 708.634.5200 Fax: 708.534.5200



500-109908 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 #: 500-109908
Chain of Custody Number: _____
Page 1 of 2
Temperature °C of Cooler: 2, 9, 3, 3

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
E+E		1009341.0012.02								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 #		VOC		SVOC		Total TAL Metals		TCLP/SPLP Metals	
W0012 (VS14)											
Project Location/State		Lab PM									
Cook Co, IL		Dick Wright									
Sampler											
JH, EF											
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	VOC	SVOC	Total TAL Metals	TCLP/SPLP Metals	PH/% Solids
1		2028V-20-B01(0-8)	4/7/16	1040	2	S	X	X	X	X	X
2		2028V-20-B01(8-15)	4/7/16	1045	2	S	X	X	X	X	X
3		2028V-20-B04(0-8)	4/7/16	1140	2	S	X	X	X	X	X
4		2028V-20-B04(8-15)	4/7/16	1145	2	S	X	X	X	X	X
5		2028V-20-B05(0-8)	4/7/16	1300	2	S	X	X	X	X	X
6		2028V-20-B05(8-15)	4/7/16	1305	2	S	X	X	X	X	X
7		2028V-20-B06(0-8)	4/7	1350	2	S	X	X	X	X	X
8		2028V-20-B06(8-15)	4/7	1355	2	S	X	X	X	X	X
9		2028V-20-B06(8-15)D	4/7	1355	2	S	X	X	X	X	X

Turnaround Time Required (Business Days)

1 Day 2 Days 5 Days 7 Days 10 Days 15 Days 6 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>J. Hughes</u> Company: <u>E+E</u> Date: <u>4/7/16</u> Time: <u>1513</u>	Received By: <u>R. Neal</u> Company: <u>TA</u> Date: <u>4/7/16</u> Time: <u>1513</u>	Lab Courier: <u>DA</u>
Relinquished By: <u>R. Neal</u> Company: <u>TA</u> Date: <u>4/7/16</u> Time: <u>16:50</u>	Received By: <u>Shirley Scott</u> Company: <u>TA</u> Date: <u>4/8/16</u> Time: <u>0715</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:

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: DT
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

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

Chain of Custody Record

Lab Job #: 500-109908
 Chain of Custody Number: _____
 Page 2 of 2
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
<u>E+E</u>		<u>1009341.0012.02</u>									
Project Name		Project Location/State		Lab Project #		SAMPLING		Matrix		Comments	
<u>WO 012 (US14)</u>		<u>Cook Co, IL</u>				Date Time					
Sampler		Lab PM		# of Containers		Matrix		Matrix		Comments	
<u>JH, EF</u>		<u>O. Wright</u>									
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	VOC	SVOC	Total TAL Metals	TCLP/SLP Metals	pH/% Solids
<u>10</u>		<u>2028V-20-B02(0-5)</u>	<u>4/7/16</u>	<u>1426</u>	<u>2 5</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>11</u>		<u>2028V-20-B02(5-10)</u>	<u>4/7/16</u>	<u>1430</u>	<u>2 5</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>12</u>		<u>2028V-20-B03(0-5)</u>	<u>4/7/16</u>	<u>1500</u>	<u>2 5</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>13</u>		<u>2028V-20-B03(5-10)</u>	<u>4/7/16</u>	<u>1505</u>	<u>2 5</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>

- 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 6 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>J. Hughes</u>	Company: <u>E+E</u>	Date: <u>4/7/16</u>	Time: <u>1513</u>	Received By: <u>J. Neal</u>	Company: <u>TA</u>	Date: <u>4/7/16</u>	Time: <u>1513</u>
Relinquished By: <u>J. Neal</u>	Company: <u>TA</u>	Date: <u>4/7/16</u>	Time: <u>16:58</u>	Received By: <u>Adam Scott</u>	Company: <u>TA-CHE</u>	Date: <u>4/8/16</u>	Time: <u>0715</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: 500-109908-1

Login Number: 109908

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	
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.	False	See NCM
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 3512 (US Route 14) Office Phone Number, if available: _____

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

1 North Broadway ST (ISGS #2028V-22)

City: Des Plaines State: IL Zip Code: 60016

County: Cook Township: Maine

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

Latitude: 42.051717° Longitude: -87.908907°

(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: 0310635656 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 3512 (US Route 14)Latitude: 42.051717° Longitude: -87.908907°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 2028V-22-B01 was sampled within the construction zone adjacent to ISGS #2028V-22 (Genesis Center of Health & Empowerment). Refer to PSI Report for ISGS #2028V-22 (Genesis Center of Health & Empowerment) including Table 4-3, and Figure 4-1.

- 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 J109738-2.

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 StreetCity: Chicago State: IL Zip Code: 60603Phone: 312-578-9243

Neil 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-91-439-09; WorkOrder #12

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 #2028V-22 (Genesis Center of Health & Empowerment)			Comparison Criteria				
	2028V-22-B01			MACs			TACO	
BORING	2028V-22-B01 (0-8)	2028V-22-B01 (0-8)D	2028V-22-B01 (8-15)	Most Stringent	Within an MSA	Within Chicago	Residential	SCGIER
SAMPLE								
MATRIX	Soil	Soil	Soil					
DEPTH (feet)	0-8	0-8	8-15					
pH	8.47	8.61	8.35					
VOCs (None Detected)								
SVOCs (mg/kg)								
Anthracene	ND U	0.014 J	ND U	12,000	--	--	23,000	--
Benzo[a]anthracene	0.039 J	0.08	ND U	0.9	1.8	1.1	1.8	--
Benzo[a]pyrene	0.046	0.11 †	ND U	0.09	2.1	1.3	2.1	--
Benzo[b]fluoranthene	0.08	0.19	ND U	0.9	2.1	1.5	2.1	--
Benzo[g,h,i]perylene	0.026 J	0.044	ND U	--	--	--	--	--
Benzo[k]fluoranthene	0.035 J	0.068	ND U	9	--	--	9	--
Chrysene	0.05	0.1	ND U	88	--	--	88	--
Dibenzo[a,h]anthracene	ND U	0.012 J	ND U	0.09	0.42	0.2	0.42	--
Fluoranthene	0.081	0.18	ND U	3,100	--	--	3,100	--
Indeno[1,2,3-cd]pyrene	0.03 J	0.048	ND U	0.9	1.6	0.9	1.6	--
Phenanthrene	0.033 J	0.079	ND U	--	--	--	--	--
Pyrene	0.071	0.17	ND U	2,300	--	--	2,300	--
Inorganics (mg/kg)								
Arsenic	7.9	7.6	7.7	11.3	13	--	13	--
Barium	68	69	76	1,500	--	--	5,500	--
Beryllium	0.69	0.61	0.68	22	--	--	160	--
Boron	11	11	12	40	--	--	16,000	--
Cadmium	ND U	0.079 J	ND U	5.2	--	--	78	--
Calcium	25,000	30,000	34,000	--	--	--	--	--
Chromium	19	18	19	21	--	--	230	--
Cobalt	12	13	13	20	--	--	4,700	--
Copper	21	20	21	2,900	--	--	2,900	--
Iron	18,000 †m	17,000 †m	17,000 †m	15,000	15,900	--	--	--
Lead	27	27	17	107	--	--	400	--
Magnesium	14,000	16,000	18,000	325,000	--	--	--	--
Manganese	380	450	420	630	636	--	1,600	--
Mercury	0.031	0.044	0.034	0.89	--	--	10	--
Nickel	31	31	31	100	--	--	1,600	--
Potassium	2,100	2,000	2,300	--	--	--	--	--
Selenium	0.51 J	0.45 J	0.64	1.3	--	--	390	--
Sodium	2,100	1,900	1,800	--	--	--	--	--
Thallium	ND U	ND U	ND U	2.6	--	--	6.3	--
Vanadium	24	24	25	550	--	--	550	--
Zinc	66	65	64	5,100	--	--	23,000	--
TCLP Metals (mg/L)								
Barium	0.38 J	0.41 J	0.49 J	--	--	--	--	2
Beryllium	ND U	ND U	ND U	--	--	--	--	0.004
Boron	0.099 J	0.091 J	0.058 J	--	--	--	--	2
Cadmium	ND U	ND U	ND U	--	--	--	--	0.005
Chromium	ND U	ND U	ND U	--	--	--	--	0.1
Cobalt	ND U	ND U	0.016 J	--	--	--	--	1
Iron	ND U	ND U	ND U	--	--	--	--	5
Lead	ND U	ND U	ND U	--	--	--	--	0.0075
Manganese	0.39 L	0.35 L	4.4 L	--	--	--	--	0.15
Nickel	ND U	ND U	0.012 J	--	--	--	--	0.1
Thallium	ND U	ND U	ND U	--	--	--	--	0.002
Zinc	ND U	ND U	ND U	--	--	--	--	5
SPLP Metals (mg/L)								
Barium	0.77	0.68	1	--	--	--	--	2
Beryllium	0.0098 L	0.0089 L	0.011 L	--	--	--	--	0.004
Boron	0.29	0.28	0.31	--	--	--	--	2
Cadmium	0.0028 J	0.0024 J	0.0022 J	--	--	--	--	0.005
Chromium	0.25 L	0.22 L	0.27 L	--	--	--	--	0.1
Cobalt	0.066	0.057	0.092	--	--	--	--	1
Iron	240 L	210 L	260 L	--	--	--	--	5
Lead	0.29 L	0.24 L	0.16 L	--	--	--	--	0.0075
Manganese	1.4 L	1.3 L	3 L	--	--	--	--	0.15
Nickel	0.24 L	0.2 L	0.27 L	--	--	--	--	0.1
Thallium	0.003 L	0.0027 L	0.003 L	--	--	--	--	0.002
Zinc	2.3	1.7	1	--	--	--	--	5

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: 500-109738-2
Client Project/Site: IDOT - Des Plaines - WO 012

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

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
4/13/2016 4:00:28 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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Job ID: 500-109738-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-109738-2

Comments

No additional comments.

Receipt

The samples were received on 4/5/2016 5:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.2° C.

GC/MS VOA

Method(s) 8260B: The laboratory control sample (LCS) for batch 330283 recovered outside control limits for the following analytes: Bromomethane. These analytes were biased high in the LCS and were 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: 2028V-22-B01 (0-8) (500-109738-8). 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

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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Client Sample ID: 2028V-22-B01 (0-8)

Lab Sample ID: 500-109738-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Phenanthrene	0.033	J	0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA	
Fluoranthene	0.081		0.040	0.0075	mg/Kg	1	☼	8270D	Total/NA	
Pyrene	0.071		0.040	0.0080	mg/Kg	1	☼	8270D	Total/NA	
Benzo[a]anthracene	0.039	J	0.040	0.0054	mg/Kg	1	☼	8270D	Total/NA	
Chrysene	0.050		0.040	0.011	mg/Kg	1	☼	8270D	Total/NA	
Benzo[b]fluoranthene	0.080		0.040	0.0087	mg/Kg	1	☼	8270D	Total/NA	
Benzo[k]fluoranthene	0.035	J	0.040	0.012	mg/Kg	1	☼	8270D	Total/NA	
Benzo[a]pyrene	0.046		0.040	0.0078	mg/Kg	1	☼	8270D	Total/NA	
Indeno[1,2,3-cd]pyrene	0.030	J	0.040	0.010	mg/Kg	1	☼	8270D	Total/NA	
Benzo[g,h,i]perylene	0.026	J	0.040	0.013	mg/Kg	1	☼	8270D	Total/NA	
Arsenic	7.9		0.59	0.27	mg/Kg	1	☼	6010B	Total/NA	
Barium	68		0.59	0.11	mg/Kg	1	☼	6010B	Total/NA	
Beryllium	0.69		0.24	0.051	mg/Kg	1	☼	6010B	Total/NA	
Boron	11		3.0	0.41	mg/Kg	1	☼	6010B	Total/NA	
Calcium	25000	B	12	3.8	mg/Kg	1	☼	6010B	Total/NA	
Chromium	19	B	0.59	0.10	mg/Kg	1	☼	6010B	Total/NA	
Cobalt	12		0.30	0.067	mg/Kg	1	☼	6010B	Total/NA	
Copper	21		0.59	0.13	mg/Kg	1	☼	6010B	Total/NA	
Iron	18000		12	4.5	mg/Kg	1	☼	6010B	Total/NA	
Lead	27		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA	
Magnesium	14000	B	5.9	2.4	mg/Kg	1	☼	6010B	Total/NA	
Manganese	380	B	0.59	0.12	mg/Kg	1	☼	6010B	Total/NA	
Nickel	31		0.59	0.16	mg/Kg	1	☼	6010B	Total/NA	
Potassium	2100		30	4.8	mg/Kg	1	☼	6010B	Total/NA	
Selenium	0.51	J	0.59	0.29	mg/Kg	1	☼	6010B	Total/NA	
Sodium	2100		59	7.8	mg/Kg	1	☼	6010B	Total/NA	
Vanadium	24		0.30	0.086	mg/Kg	1	☼	6010B	Total/NA	
Zinc	66		1.2	0.37	mg/Kg	1	☼	6010B	Total/NA	
Barium	0.38	J	0.50	0.050	mg/L	1		6010B	TCLP	
Boron	0.099	J	0.50	0.050	mg/L	1		6010B	TCLP	
Manganese	0.39		0.025	0.010	mg/L	1		6010B	TCLP	
Zinc	0.82	B	0.50	0.020	mg/L	1		6010B	TCLP	
Barium	0.77		0.50	0.050	mg/L	1		6010B	SPLP East	
Beryllium	0.0098		0.0040	0.0040	mg/L	1		6010B	SPLP East	
Boron	0.29		0.10	0.050	mg/L	1		6010B	SPLP East	
Cadmium	0.0028	J	0.0050	0.0020	mg/L	1		6010B	SPLP East	
Chromium	0.25		0.025	0.010	mg/L	1		6010B	SPLP East	
Cobalt	0.066		0.025	0.010	mg/L	1		6010B	SPLP East	
Iron	240		0.40	0.20	mg/L	1		6010B	SPLP East	
Lead	0.29		0.0075	0.0075	mg/L	1		6010B	SPLP East	
Manganese	1.4		0.025	0.010	mg/L	1		6010B	SPLP East	
Nickel	0.24		0.025	0.010	mg/L	1		6010B	SPLP East	
Zinc	2.3	B	0.50	0.020	mg/L	1		6010B	SPLP East	
Thallium	0.0030		0.0020	0.0020	mg/L	1		6020A	SPLP East	
Mercury	0.031		0.019	0.010	mg/Kg	1	☼	7471B	Total/NA	
pH	8.47		0.200	0.200	SU	1		9045D	Total/NA	

Client Sample ID: 2028V-22-B01 (0-8)D

Lab Sample ID: 500-109738-9

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Client Sample ID: 2028V-22-B01 (0-8)D (Continued)

Lab Sample ID: 500-109738-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.079		0.041	0.0057	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.014	J	0.041	0.0068	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.18		0.041	0.0076	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.17		0.041	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.080		0.041	0.0055	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.10		0.041	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.19		0.041	0.0088	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.068		0.041	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.11		0.041	0.0079	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.048		0.041	0.011	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.012	J	0.041	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.044		0.041	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.6		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	69		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.61		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	11		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.079	J	0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	30000	B	12	3.7	mg/Kg	1	☼	6010B	Total/NA
Chromium	18	B	0.58	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	13		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	17000		12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	27		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	16000	B	5.8	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	450	B	0.58	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	31		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2000		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.45	J	0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	1900		58	7.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	24		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	65		1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.41	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.091	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.35		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.081	J B	0.50	0.020	mg/L	1		6010B	TCLP
Barium	0.68		0.50	0.050	mg/L	1		6010B	SPLP East
Beryllium	0.0089		0.0040	0.0040	mg/L	1		6010B	SPLP East
Boron	0.28		0.10	0.050	mg/L	1		6010B	SPLP East
Cadmium	0.0024	J	0.0050	0.0020	mg/L	1		6010B	SPLP East
Chromium	0.22		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.057		0.025	0.010	mg/L	1		6010B	SPLP East
Iron	210		0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.24		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	1.3		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.20		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	1.7	B	0.50	0.020	mg/L	1		6010B	SPLP East
Thallium	0.0027		0.0020	0.0020	mg/L	1		6020A	SPLP East
Mercury	0.044		0.019	0.0099	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

Detection Summary

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Client Sample ID: 2028V-22-B01 (8-15)

Lab Sample ID: 500-109738-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Arsenic	7.7		0.64	0.29	mg/Kg	1		☼	6010B	Total/NA
Barium	76		0.64	0.12	mg/Kg	1		☼	6010B	Total/NA
Beryllium	0.68		0.25	0.055	mg/Kg	1		☼	6010B	Total/NA
Boron	12		3.2	0.45	mg/Kg	1		☼	6010B	Total/NA
Calcium	34000	B	13	4.1	mg/Kg	1		☼	6010B	Total/NA
Chromium	19	B	0.64	0.11	mg/Kg	1		☼	6010B	Total/NA
Cobalt	13		0.32	0.072	mg/Kg	1		☼	6010B	Total/NA
Copper	21		0.64	0.14	mg/Kg	1		☼	6010B	Total/NA
Iron	17000		13	4.9	mg/Kg	1		☼	6010B	Total/NA
Lead	17		0.32	0.16	mg/Kg	1		☼	6010B	Total/NA
Magnesium	18000	B	6.4	2.6	mg/Kg	1		☼	6010B	Total/NA
Manganese	420	B	0.64	0.13	mg/Kg	1		☼	6010B	Total/NA
Nickel	31		0.64	0.17	mg/Kg	1		☼	6010B	Total/NA
Potassium	2300		32	5.2	mg/Kg	1		☼	6010B	Total/NA
Selenium	0.64		0.64	0.32	mg/Kg	1		☼	6010B	Total/NA
Sodium	1800		64	8.4	mg/Kg	1		☼	6010B	Total/NA
Vanadium	25		0.32	0.093	mg/Kg	1		☼	6010B	Total/NA
Zinc	64		1.3	0.40	mg/Kg	1		☼	6010B	Total/NA
Barium	0.49	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.058	J	0.50	0.050	mg/L	1			6010B	TCLP
Cobalt	0.016	J	0.025	0.010	mg/L	1			6010B	TCLP
Manganese	4.4		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.012	J	0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.062	J B	0.50	0.020	mg/L	1			6010B	TCLP
Barium	1.0		0.50	0.050	mg/L	1			6010B	SPLP East
Beryllium	0.011		0.0040	0.0040	mg/L	1			6010B	SPLP East
Boron	0.31		0.10	0.050	mg/L	1			6010B	SPLP East
Cadmium	0.0022	J	0.0050	0.0020	mg/L	1			6010B	SPLP East
Chromium	0.27		0.025	0.010	mg/L	1			6010B	SPLP East
Cobalt	0.092		0.025	0.010	mg/L	1			6010B	SPLP East
Iron	260		0.40	0.20	mg/L	1			6010B	SPLP East
Lead	0.16		0.0075	0.0075	mg/L	1			6010B	SPLP East
Manganese	3.0		0.025	0.010	mg/L	1			6010B	SPLP East
Nickel	0.27		0.025	0.010	mg/L	1			6010B	SPLP East
Zinc	1.0	B	0.50	0.020	mg/L	1			6010B	SPLP East
Thallium	0.0030		0.0020	0.0020	mg/L	1			6020A	SPLP East
Mercury	0.034		0.019	0.010	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-109738-8	2028V-22-B01 (0-8)	Solid	04/05/16 14:30	04/05/16 17:45
500-109738-9	2028V-22-B01 (0-8)D	Solid	04/05/16 14:30	04/05/16 17:45
500-109738-10	2028V-22-B01 (8-15)	Solid	04/05/16 14:50	04/05/16 17:45

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Client Sample ID: 2028V-22-B01 (0-8)

Lab Sample ID: 500-109738-8

Date Collected: 04/05/16 14:30

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 79.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0036	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Benzene	<0.0047		0.0047	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Bromodichloromethane	<0.0047		0.0047	0.00079	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Bromoform	<0.0047		0.0047	0.00096	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Bromomethane	<0.0047 *		0.0047	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
2-Butanone (MEK)	<0.0047		0.0047	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Carbon disulfide	<0.0047		0.0047	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Carbon tetrachloride	<0.0047		0.0047	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Chlorobenzene	<0.0047		0.0047	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Chloroethane	<0.0047		0.0047	0.0020	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Chloroform	<0.0047		0.0047	0.00092	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Chloromethane	<0.0047		0.0047	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
cis-1,2-Dichloroethene	<0.0047		0.0047	0.00096	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
cis-1,3-Dichloropropene	<0.0047		0.0047	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Dibromochloromethane	<0.0047		0.0047	0.00054	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
1,1-Dichloroethane	<0.0047		0.0047	0.00097	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
1,2-Dichloroethane	<0.0047		0.0047	0.00070	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
1,1-Dichloroethene	<0.0047		0.0047	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
1,2-Dichloropropane	<0.0047		0.0047	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
1,3-Dichloropropane, Total	<0.0047		0.0047	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Ethylbenzene	<0.0047		0.0047	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Methylene Chloride	<0.0047		0.0047	0.0036	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.00097	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Methyl tert-butyl ether	<0.0047		0.0047	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Styrene	<0.0047		0.0047	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
1,1,2,2-Tetrachloroethane	<0.0047		0.0047	0.00075	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Tetrachloroethene	<0.0047		0.0047	0.00098	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Toluene	<0.0047		0.0047	0.0016	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
trans-1,2-Dichloroethene	<0.0047		0.0047	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
trans-1,3-Dichloropropene	<0.0047		0.0047	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
1,1,1-Trichloroethane	<0.0047		0.0047	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
1,1,2-Trichloroethane	<0.0047		0.0047	0.00091	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Trichloroethene	<0.0047		0.0047	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Vinyl acetate	<0.0047		0.0047	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Vinyl chloride	<0.0047		0.0047	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1
Xylenes, Total	<0.0094		0.0094	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 15:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 120	04/06/16 08:50	04/08/16 15:45	1
Dibromofluoromethane	115		75 - 120	04/06/16 08:50	04/08/16 15:45	1
1,2-Dichloroethane-d4 (Surr)	119		69 - 134	04/06/16 08:50	04/08/16 15:45	1
Toluene-d8 (Surr)	113		75 - 123	04/06/16 08:50	04/08/16 15:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.089	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Client Sample ID: 2028V-22-B01 (0-8)

Lab Sample ID: 500-109738-8

Date Collected: 04/05/16 14:30

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 79.4

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	☼	04/06/16 16:59	04/08/16 15:32	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
2-Methylnaphthalene	<0.040		0.040	0.0074	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Pentachlorophenol	<0.81		0.81	0.65	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Phenanthrene	0.033	J	0.040	0.0056	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Fluoranthene	0.081		0.040	0.0075	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Pyrene	0.071		0.040	0.0080	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Benzo[a]anthracene	0.039	J	0.040	0.0054	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Client Sample ID: 2028V-22-B01 (0-8)

Lab Sample ID: 500-109738-8

Date Collected: 04/05/16 14:30

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 79.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.050		0.040	0.011	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Benzo[b]fluoranthene	0.080		0.040	0.0087	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Benzo[k]fluoranthene	0.035 J		0.040	0.012	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Benzo[a]pyrene	0.046		0.040	0.0078	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Indeno[1,2,3-cd]pyrene	0.030 J		0.040	0.010	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
Benzo[g,h,i]perylene	0.026 J		0.040	0.013	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	04/06/16 16:59	04/08/16 15:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	38	X	40 - 130	04/06/16 16:59	04/08/16 15:32	1
Phenol-d5	37		36 - 123	04/06/16 16:59	04/08/16 15:32	1
Nitrobenzene-d5	38		33 - 124	04/06/16 16:59	04/08/16 15:32	1
2-Fluorobiphenyl	45		42 - 115	04/06/16 16:59	04/08/16 15:32	1
2,4,6-Tribromophenol	45		25 - 130	04/06/16 16:59	04/08/16 15:32	1
Terphenyl-d14	60		25 - 150	04/06/16 16:59	04/08/16 15:32	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	☼	04/06/16 16:06	04/07/16 14:11	1
Arsenic	7.9		0.59	0.27	mg/Kg	☼	04/06/16 16:06	04/07/16 14:11	1
Barium	68		0.59	0.11	mg/Kg	☼	04/06/16 16:06	04/07/16 14:11	1
Beryllium	0.69		0.24	0.051	mg/Kg	☼	04/06/16 16:06	04/08/16 01:17	1
Boron	11		3.0	0.41	mg/Kg	☼	04/06/16 16:06	04/07/16 14:11	1
Cadmium	<0.12		0.12	0.034	mg/Kg	☼	04/06/16 16:06	04/07/16 14:11	1
Calcium	25000 B		12	3.8	mg/Kg	☼	04/06/16 16:06	04/07/16 14:11	1
Chromium	19 B		0.59	0.10	mg/Kg	☼	04/06/16 16:06	04/07/16 14:11	1
Cobalt	12		0.30	0.067	mg/Kg	☼	04/06/16 16:06	04/07/16 14:11	1
Copper	21		0.59	0.13	mg/Kg	☼	04/06/16 16:06	04/07/16 14:11	1
Iron	18000		12	4.5	mg/Kg	☼	04/06/16 16:06	04/07/16 14:11	1
Lead	27		0.30	0.15	mg/Kg	☼	04/06/16 16:06	04/07/16 14:11	1
Magnesium	14000 B		5.9	2.4	mg/Kg	☼	04/06/16 16:06	04/07/16 14:11	1
Manganese	380 B		0.59	0.12	mg/Kg	☼	04/06/16 16:06	04/08/16 01:17	1
Nickel	31		0.59	0.16	mg/Kg	☼	04/06/16 16:06	04/07/16 14:11	1
Potassium	2100		30	4.8	mg/Kg	☼	04/06/16 16:06	04/08/16 01:17	1
Selenium	0.51 J		0.59	0.29	mg/Kg	☼	04/06/16 16:06	04/07/16 14:11	1
Silver	<0.30		0.30	0.069	mg/Kg	☼	04/06/16 16:06	04/07/16 14:11	1
Sodium	2100		59	7.8	mg/Kg	☼	04/06/16 16:06	04/08/16 01:17	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	04/06/16 16:06	04/07/16 14:11	1
Vanadium	24		0.30	0.086	mg/Kg	☼	04/06/16 16:06	04/07/16 14:11	1
Zinc	66		1.2	0.37	mg/Kg	☼	04/06/16 16:06	04/07/16 14:11	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		04/07/16 14:27	04/08/16 14:02	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/07/16 14:27	04/08/16 14:02	1
Boron	0.099 J		0.50	0.050	mg/L		04/07/16 14:27	04/08/16 14:02	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Client Sample ID: 2028V-22-B01 (0-8)

Lab Sample ID: 500-109738-8

Date Collected: 04/05/16 14:30

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 79.4

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		04/07/16 14:27	04/08/16 14:02	1
Chromium	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 14:02	1
Cobalt	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 14:02	1
Iron	<0.40		0.40	0.20	mg/L		04/07/16 14:27	04/08/16 14:02	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/07/16 14:27	04/08/16 14:02	1
Manganese	0.39		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 14:02	1
Nickel	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 14:02	1
Selenium	<0.050		0.050	0.020	mg/L		04/07/16 14:27	04/08/16 14:02	1
Silver	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 14:02	1
Zinc	0.82	B	0.50	0.020	mg/L		04/07/16 14:27	04/08/16 14:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.77		0.50	0.050	mg/L		04/07/16 14:28	04/08/16 19:19	1
Beryllium	0.0098		0.0040	0.0040	mg/L		04/07/16 14:28	04/08/16 19:19	1
Boron	0.29		0.10	0.050	mg/L		04/07/16 14:28	04/08/16 19:19	1
Cadmium	0.0028	J	0.0050	0.0020	mg/L		04/07/16 14:28	04/08/16 19:19	1
Chromium	0.25		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:19	1
Cobalt	0.066		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:19	1
Iron	240		0.40	0.20	mg/L		04/07/16 14:28	04/08/16 19:19	1
Lead	0.29		0.0075	0.0075	mg/L		04/07/16 14:28	04/08/16 19:19	1
Manganese	1.4		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:19	1
Nickel	0.24		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:19	1
Selenium	<0.050		0.050	0.020	mg/L		04/07/16 14:28	04/08/16 19:19	1
Silver	<0.025		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:19	1
Zinc	2.3	B	0.50	0.020	mg/L		04/07/16 14:28	04/08/16 19:19	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		04/07/16 14:27	04/08/16 16:45	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/07/16 14:27	04/08/16 16:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/07/16 14:28	04/08/16 17:09	1
Thallium	0.0030		0.0020	0.0020	mg/L		04/07/16 14:28	04/08/16 17:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/07/16 13:30	04/08/16 11:57	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		04/07/16 13:30	04/08/16 10:24	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.031		0.019	0.010	mg/Kg	☼	04/06/16 12:15	04/07/16 11:04	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Client Sample ID: 2028V-22-B01 (0-8)

Lab Sample ID: 500-109738-8

Date Collected: 04/05/16 14:30

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 79.4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.47		0.200	0.200	SU			04/08/16 12:34	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Client Sample ID: 2028V-22-B01 (0-8)D

Lab Sample ID: 500-109738-9

Date Collected: 04/05/16 14:30

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 79.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0036	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Benzene	<0.0047		0.0047	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Bromodichloromethane	<0.0047		0.0047	0.00079	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Bromoform	<0.0047		0.0047	0.00095	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Bromomethane	<0.0047 *		0.0047	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
2-Butanone (MEK)	<0.0047		0.0047	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Carbon disulfide	<0.0047		0.0047	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Carbon tetrachloride	<0.0047		0.0047	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Chlorobenzene	<0.0047		0.0047	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Chloroethane	<0.0047		0.0047	0.0020	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Chloroform	<0.0047		0.0047	0.00091	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Chloromethane	<0.0047		0.0047	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
cis-1,2-Dichloroethene	<0.0047		0.0047	0.00095	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
cis-1,3-Dichloropropene	<0.0047		0.0047	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Dibromochloromethane	<0.0047		0.0047	0.00054	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
1,1-Dichloroethane	<0.0047		0.0047	0.00096	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
1,2-Dichloroethane	<0.0047		0.0047	0.00069	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
1,1-Dichloroethene	<0.0047		0.0047	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
1,2-Dichloropropane	<0.0047		0.0047	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
1,3-Dichloropropane, Total	<0.0047		0.0047	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Ethylbenzene	<0.0047		0.0047	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
2-Hexanone	<0.0047		0.0047	0.0014	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Methylene Chloride	<0.0047		0.0047	0.0035	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.00096	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Methyl tert-butyl ether	<0.0047		0.0047	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Styrene	<0.0047		0.0047	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
1,1,2,2-Tetrachloroethane	<0.0047		0.0047	0.00074	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Tetrachloroethene	<0.0047		0.0047	0.00097	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Toluene	<0.0047		0.0047	0.0016	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
trans-1,2-Dichloroethene	<0.0047		0.0047	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
trans-1,3-Dichloropropene	<0.0047		0.0047	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
1,1,1-Trichloroethane	<0.0047		0.0047	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
1,1,2-Trichloroethane	<0.0047		0.0047	0.00090	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Trichloroethene	<0.0047		0.0047	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Vinyl acetate	<0.0047		0.0047	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Vinyl chloride	<0.0047		0.0047	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1
Xylenes, Total	<0.0093		0.0093	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 16:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 120	04/06/16 08:50	04/08/16 16:09	1
Dibromofluoromethane	116		75 - 120	04/06/16 08:50	04/08/16 16:09	1
1,2-Dichloroethane-d4 (Surr)	117		69 - 134	04/06/16 08:50	04/08/16 16:09	1
Toluene-d8 (Surr)	115		75 - 123	04/06/16 08:50	04/08/16 16:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.091	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.061	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
1,4-Dichlorobenzene	<0.21		0.21	0.052	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Client Sample ID: 2028V-22-B01 (0-8)D

Lab Sample ID: 500-109738-9

Date Collected: 04/05/16 14:30

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 79.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.047	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
2,4,5-Trichlorophenol	<0.41		0.41	0.093	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
2-Methylnaphthalene	<0.041		0.041	0.0075	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
2,6-Dinitrotoluene	<0.21		0.21	0.080	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Dimethyl phthalate	<0.21		0.21	0.053	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
2,4-Dinitrophenol	<0.82		0.82	0.72	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Acenaphthene	<0.041		0.041	0.0073	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Fluorene	<0.041		0.041	0.0057	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Hexachlorobenzene	<0.082		0.082	0.0095	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Diethyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Pentachlorophenol	<0.82		0.82	0.66	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Phenanthrene	0.079		0.041	0.0057	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Anthracene	0.014 J		0.041	0.0068	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Di-n-butyl phthalate	<0.21		0.21	0.062	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Fluoranthene	0.18		0.041	0.0076	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Pyrene	0.17		0.041	0.0081	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Benzo[a]anthracene	0.080		0.041	0.0055	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Client Sample ID: 2028V-22-B01 (0-8)D

Lab Sample ID: 500-109738-9

Date Collected: 04/05/16 14:30

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 79.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.10		0.041	0.011	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Benzo[b]fluoranthene	0.19		0.041	0.0088	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Benzo[k]fluoranthene	0.068		0.041	0.012	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Benzo[a]pyrene	0.11		0.041	0.0079	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Indeno[1,2,3-cd]pyrene	0.048		0.041	0.011	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Dibenz(a,h)anthracene	0.012	J	0.041	0.0079	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
Benzo[g,h,i]perylene	0.044		0.041	0.013	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	04/06/16 16:59	04/08/16 17:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	67		40 - 130	04/06/16 16:59	04/08/16 17:00	1
Phenol-d5	73		36 - 123	04/06/16 16:59	04/08/16 17:00	1
Nitrobenzene-d5	68		33 - 124	04/06/16 16:59	04/08/16 17:00	1
2-Fluorobiphenyl	77		42 - 115	04/06/16 16:59	04/08/16 17:00	1
2,4,6-Tribromophenol	59		25 - 130	04/06/16 16:59	04/08/16 17:00	1
Terphenyl-d14	90		25 - 150	04/06/16 16:59	04/08/16 17:00	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	☼	04/06/16 16:06	04/07/16 14:16	1
Arsenic	7.6		0.58	0.27	mg/Kg	☼	04/06/16 16:06	04/07/16 14:16	1
Barium	69		0.58	0.11	mg/Kg	☼	04/06/16 16:06	04/07/16 14:16	1
Beryllium	0.61		0.23	0.050	mg/Kg	☼	04/06/16 16:06	04/08/16 01:22	1
Boron	11		2.9	0.41	mg/Kg	☼	04/06/16 16:06	04/07/16 14:16	1
Cadmium	0.079	J	0.12	0.034	mg/Kg	☼	04/06/16 16:06	04/07/16 14:16	1
Calcium	30000	B	12	3.7	mg/Kg	☼	04/06/16 16:06	04/07/16 14:16	1
Chromium	18	B	0.58	0.10	mg/Kg	☼	04/06/16 16:06	04/07/16 14:16	1
Cobalt	13		0.29	0.066	mg/Kg	☼	04/06/16 16:06	04/07/16 14:16	1
Copper	20		0.58	0.13	mg/Kg	☼	04/06/16 16:06	04/07/16 14:16	1
Iron	17000		12	4.5	mg/Kg	☼	04/06/16 16:06	04/07/16 14:16	1
Lead	27		0.29	0.14	mg/Kg	☼	04/06/16 16:06	04/07/16 14:16	1
Magnesium	16000	B	5.8	2.4	mg/Kg	☼	04/06/16 16:06	04/07/16 14:16	1
Manganese	450	B	0.58	0.12	mg/Kg	☼	04/06/16 16:06	04/08/16 01:22	1
Nickel	31		0.58	0.16	mg/Kg	☼	04/06/16 16:06	04/07/16 14:16	1
Potassium	2000		29	4.7	mg/Kg	☼	04/06/16 16:06	04/08/16 01:22	1
Selenium	0.45	J	0.58	0.29	mg/Kg	☼	04/06/16 16:06	04/07/16 14:16	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	04/06/16 16:06	04/07/16 14:16	1
Sodium	1900		58	7.7	mg/Kg	☼	04/06/16 16:06	04/08/16 01:22	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	04/06/16 16:06	04/07/16 14:16	1
Vanadium	24		0.29	0.085	mg/Kg	☼	04/06/16 16:06	04/07/16 14:16	1
Zinc	65		1.2	0.37	mg/Kg	☼	04/06/16 16:06	04/07/16 14:16	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		04/07/16 14:27	04/08/16 14:07	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/07/16 14:27	04/08/16 14:07	1
Boron	0.091	J	0.50	0.050	mg/L		04/07/16 14:27	04/08/16 14:07	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Client Sample ID: 2028V-22-B01 (0-8)D

Lab Sample ID: 500-109738-9

Date Collected: 04/05/16 14:30

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 79.9

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		04/07/16 14:27	04/08/16 14:07	1
Chromium	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 14:07	1
Cobalt	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 14:07	1
Iron	<0.40		0.40	0.20	mg/L		04/07/16 14:27	04/08/16 14:07	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/07/16 14:27	04/08/16 14:07	1
Manganese	0.35		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 14:07	1
Nickel	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 14:07	1
Selenium	<0.050		0.050	0.020	mg/L		04/07/16 14:27	04/08/16 14:07	1
Silver	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 14:07	1
Zinc	0.081	J B	0.50	0.020	mg/L		04/07/16 14:27	04/08/16 14:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.68		0.50	0.050	mg/L		04/07/16 14:28	04/08/16 19:42	1
Beryllium	0.0089		0.0040	0.0040	mg/L		04/07/16 14:28	04/08/16 19:42	1
Boron	0.28		0.10	0.050	mg/L		04/07/16 14:28	04/08/16 19:42	1
Cadmium	0.0024	J	0.0050	0.0020	mg/L		04/07/16 14:28	04/08/16 19:42	1
Chromium	0.22		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:42	1
Cobalt	0.057		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:42	1
Iron	210		0.40	0.20	mg/L		04/07/16 14:28	04/08/16 19:42	1
Lead	0.24		0.0075	0.0075	mg/L		04/07/16 14:28	04/08/16 19:42	1
Manganese	1.3		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:42	1
Nickel	0.20		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:42	1
Selenium	<0.050		0.050	0.020	mg/L		04/07/16 14:28	04/08/16 19:42	1
Silver	<0.025		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:42	1
Zinc	1.7	B	0.50	0.020	mg/L		04/07/16 14:28	04/08/16 19:42	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		04/07/16 14:27	04/08/16 16:47	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/07/16 14:27	04/08/16 16:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/07/16 14:28	04/08/16 17:10	1
Thallium	0.0027		0.0020	0.0020	mg/L		04/07/16 14:28	04/08/16 17:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/07/16 13:30	04/08/16 11:59	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		04/07/16 13:30	04/08/16 10:26	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.044		0.019	0.0099	mg/Kg	☼	04/06/16 12:15	04/07/16 11:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Client Sample ID: 2028V-22-B01 (0-8)D

Lab Sample ID: 500-109738-9

Date Collected: 04/05/16 14:30

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 79.9

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.61		0.200	0.200	SU			04/08/16 12:41	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Client Sample ID: 2028V-22-B01 (8-15)

Lab Sample ID: 500-109738-10

Date Collected: 04/05/16 14:50

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 77.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0038	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Benzene	<0.0049		0.0049	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Bromodichloromethane	<0.0049		0.0049	0.00083	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Bromoform	<0.0049		0.0049	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Bromomethane	<0.0049	*	0.0049	0.0018	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
2-Butanone (MEK)	<0.0049		0.0049	0.0018	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Carbon disulfide	<0.0049		0.0049	0.0018	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Carbon tetrachloride	<0.0049		0.0049	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Chlorobenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Chloroethane	<0.0049		0.0049	0.0021	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Chloroform	<0.0049		0.0049	0.00096	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Chloromethane	<0.0049		0.0049	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
cis-1,2-Dichloroethene	<0.0049		0.0049	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
cis-1,3-Dichloropropene	<0.0049		0.0049	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Dibromochloromethane	<0.0049		0.0049	0.00057	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
1,1-Dichloroethane	<0.0049		0.0049	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
1,2-Dichloroethane	<0.0049		0.0049	0.00073	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
1,1-Dichloroethene	<0.0049		0.0049	0.0018	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
1,2-Dichloropropane	<0.0049		0.0049	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
1,3-Dichloropropane, Total	<0.0049		0.0049	0.0014	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Ethylbenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Methylene Chloride	<0.0049		0.0049	0.0037	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Methyl tert-butyl ether	<0.0049		0.0049	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Styrene	<0.0049		0.0049	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
1,1,1,2-Tetrachloroethane	<0.0049		0.0049	0.00078	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Tetrachloroethene	<0.0049		0.0049	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Toluene	<0.0049		0.0049	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
trans-1,2-Dichloroethene	<0.0049		0.0049	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
trans-1,3-Dichloropropene	<0.0049		0.0049	0.0014	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
1,1,1-Trichloroethane	<0.0049		0.0049	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
1,1,2-Trichloroethane	<0.0049		0.0049	0.00096	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Trichloroethene	<0.0049		0.0049	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Vinyl acetate	<0.0049		0.0049	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Vinyl chloride	<0.0049		0.0049	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1
Xylenes, Total	<0.0099		0.0099	0.0018	mg/Kg	☼	04/06/16 08:50	04/08/16 16:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 120	04/06/16 08:50	04/08/16 16:32	1
Dibromofluoromethane	115		75 - 120	04/06/16 08:50	04/08/16 16:32	1
1,2-Dichloroethane-d4 (Surr)	119		69 - 134	04/06/16 08:50	04/08/16 16:32	1
Toluene-d8 (Surr)	115		75 - 123	04/06/16 08:50	04/08/16 16:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.091	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.061	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
1,4-Dichlorobenzene	<0.21		0.21	0.052	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Client Sample ID: 2028V-22-B01 (8-15)

Lab Sample ID: 500-109738-10

Date Collected: 04/05/16 14:50

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 77.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.047	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
2,4,5-Trichlorophenol	<0.41		0.41	0.093	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
2-Methylnaphthalene	<0.041		0.041	0.0075	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
2,6-Dinitrotoluene	<0.21		0.21	0.080	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Dimethyl phthalate	<0.21		0.21	0.053	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
2,4-Dinitrophenol	<0.83		0.83	0.72	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Hexachlorobenzene	<0.083		0.083	0.0095	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Diethyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Phenanthrene	<0.041		0.041	0.0057	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Anthracene	<0.041		0.041	0.0068	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Di-n-butyl phthalate	<0.21		0.21	0.062	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Pyrene	<0.041		0.041	0.0081	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Client Sample ID: 2028V-22-B01 (8-15)

Lab Sample ID: 500-109738-10

Date Collected: 04/05/16 14:50

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 77.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.041		0.041	0.011	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Benzo[b]fluoranthene	<0.041		0.041	0.0088	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Benzo[a]pyrene	<0.041		0.041	0.0079	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	04/06/16 16:59	04/08/16 14:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	62		40 - 130	04/06/16 16:59	04/08/16 14:05	1
Phenol-d5	59		36 - 123	04/06/16 16:59	04/08/16 14:05	1
Nitrobenzene-d5	52		33 - 124	04/06/16 16:59	04/08/16 14:05	1
2-Fluorobiphenyl	60		42 - 115	04/06/16 16:59	04/08/16 14:05	1
2,4,6-Tribromophenol	56		25 - 130	04/06/16 16:59	04/08/16 14:05	1
Terphenyl-d14	68		25 - 150	04/06/16 16:59	04/08/16 14:05	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.3		1.3	0.26	mg/Kg	☼	04/06/16 16:06	04/07/16 14:21	1
Arsenic	7.7		0.64	0.29	mg/Kg	☼	04/06/16 16:06	04/07/16 14:21	1
Barium	76		0.64	0.12	mg/Kg	☼	04/06/16 16:06	04/07/16 14:21	1
Beryllium	0.68		0.25	0.055	mg/Kg	☼	04/06/16 16:06	04/08/16 01:27	1
Boron	12		3.2	0.45	mg/Kg	☼	04/06/16 16:06	04/07/16 14:21	1
Cadmium	<0.13		0.13	0.037	mg/Kg	☼	04/06/16 16:06	04/07/16 14:21	1
Calcium	34000	B	13	4.1	mg/Kg	☼	04/06/16 16:06	04/07/16 14:21	1
Chromium	19	B	0.64	0.11	mg/Kg	☼	04/06/16 16:06	04/07/16 14:21	1
Cobalt	13		0.32	0.072	mg/Kg	☼	04/06/16 16:06	04/07/16 14:21	1
Copper	21		0.64	0.14	mg/Kg	☼	04/06/16 16:06	04/07/16 14:21	1
Iron	17000		13	4.9	mg/Kg	☼	04/06/16 16:06	04/07/16 14:21	1
Lead	17		0.32	0.16	mg/Kg	☼	04/06/16 16:06	04/07/16 14:21	1
Magnesium	18000	B	6.4	2.6	mg/Kg	☼	04/06/16 16:06	04/07/16 14:21	1
Manganese	420	B	0.64	0.13	mg/Kg	☼	04/06/16 16:06	04/08/16 01:27	1
Nickel	31		0.64	0.17	mg/Kg	☼	04/06/16 16:06	04/07/16 14:21	1
Potassium	2300		32	5.2	mg/Kg	☼	04/06/16 16:06	04/08/16 01:27	1
Selenium	0.64		0.64	0.32	mg/Kg	☼	04/06/16 16:06	04/07/16 14:21	1
Silver	<0.32		0.32	0.075	mg/Kg	☼	04/06/16 16:06	04/07/16 14:21	1
Sodium	1800		64	8.4	mg/Kg	☼	04/06/16 16:06	04/08/16 01:27	1
Thallium	<0.64		0.64	0.31	mg/Kg	☼	04/06/16 16:06	04/07/16 14:21	1
Vanadium	25		0.32	0.093	mg/Kg	☼	04/06/16 16:06	04/07/16 14:21	1
Zinc	64		1.3	0.40	mg/Kg	☼	04/06/16 16:06	04/07/16 14:21	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		04/07/16 14:27	04/08/16 14:12	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/07/16 14:27	04/08/16 14:12	1
Boron	0.058	J	0.50	0.050	mg/L		04/07/16 14:27	04/08/16 14:12	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Client Sample ID: 2028V-22-B01 (8-15)

Lab Sample ID: 500-109738-10

Date Collected: 04/05/16 14:50

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 77.0

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		04/07/16 14:27	04/08/16 14:12	1
Chromium	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 14:12	1
Cobalt	0.016	J	0.025	0.010	mg/L		04/07/16 14:27	04/08/16 14:12	1
Iron	<0.40		0.40	0.20	mg/L		04/07/16 14:27	04/08/16 14:12	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/07/16 14:27	04/08/16 14:12	1
Manganese	4.4		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 14:12	1
Nickel	0.012	J	0.025	0.010	mg/L		04/07/16 14:27	04/08/16 14:12	1
Selenium	<0.050		0.050	0.020	mg/L		04/07/16 14:27	04/08/16 14:12	1
Silver	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 14:12	1
Zinc	0.062	J B	0.50	0.020	mg/L		04/07/16 14:27	04/08/16 14:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	1.0		0.50	0.050	mg/L		04/07/16 14:28	04/08/16 19:49	1
Beryllium	0.011		0.0040	0.0040	mg/L		04/07/16 14:28	04/08/16 19:49	1
Boron	0.31		0.10	0.050	mg/L		04/07/16 14:28	04/08/16 19:49	1
Cadmium	0.0022	J	0.0050	0.0020	mg/L		04/07/16 14:28	04/08/16 19:49	1
Chromium	0.27		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:49	1
Cobalt	0.092		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:49	1
Iron	260		0.40	0.20	mg/L		04/07/16 14:28	04/08/16 19:49	1
Lead	0.16		0.0075	0.0075	mg/L		04/07/16 14:28	04/08/16 19:49	1
Manganese	3.0		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:49	1
Nickel	0.27		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:49	1
Selenium	<0.050		0.050	0.020	mg/L		04/07/16 14:28	04/08/16 19:49	1
Silver	<0.025		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:49	1
Zinc	1.0	B	0.50	0.020	mg/L		04/07/16 14:28	04/08/16 19:49	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		04/07/16 14:27	04/08/16 16:48	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/07/16 14:27	04/08/16 16:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	F1	0.0060	0.0060	mg/L		04/07/16 14:28	04/08/16 17:11	1
Thallium	0.0030		0.0020	0.0020	mg/L		04/07/16 14:28	04/08/16 17:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/07/16 13:30	04/08/16 12:05	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		04/07/16 13:30	04/08/16 10:31	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.034		0.019	0.010	mg/Kg	☼	04/06/16 12:15	04/07/16 11:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Client Sample ID: 2028V-22-B01 (8-15)

Lab Sample ID: 500-109738-10

Date Collected: 04/05/16 14:50

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 77.0

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.35		0.200	0.200	SU			04/08/16 12:47	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
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
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.
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.
□	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-2

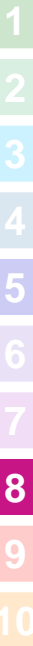
Laboratory: TestAmerica Chicago

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	04-30-17

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: DT
 Company: ZH
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

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

Chain of Custody Record

Lab Job #: 500-109738
 Chain of Custody Number: E912-02
 Page 1 of 1
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Preservative Key
Lab ID	MIS/MSD	Sample ID	Date	Time	# of Containers	Matrix				
EE		1009341-0012-02				VOC		SVC		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: <u>MS 12 (US14)</u>		Lab Project #: <u>500/2022</u>				Total TAC		TAC		
Project Location/State: <u>Cook County</u>		Lab PM: <u>D. Wright</u>				TAC		TAC		
Sampler: <u>S. Cooper</u>						TAC		TAC		
8		2028V-22-301 (0-E)	4-5-16	1430	25	X	X	X	X	
9		2028V-22-301 (0-E)D	4-5-16	1430	25	X	X	X	X	
10		2028V-22-301 (0-TS)	4-5-16	1450	25	X	X	X	X	
 45-16 										

Turnaround Time Required (Business Days): 6 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>4-5-16</u> Time: <u>1500</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>4/5/16</u> Time: <u>1500</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>4/5/16</u> Time: _____	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>4/5/16</u> Time: <u>1628</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>4/5/16</u> Time: <u>1745</u>	Received By: <u>[Signature]</u> Company: <u>TA-CHT</u> Date: <u>4/6/16</u> Time: <u>0715</u>

Lab Courier: TA
 Shipped: _____

- 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: 500-109738-2

Login Number: 109738

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	4.2
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 3512 (US Route 14) Office Phone Number, if available: _____

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

622 East Northwest Highway (ISGS #2028V-25)

City: Des Plaines State: IL Zip Code: 60016

County: Cook Township: Maine

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

Latitude: 42.051157° Longitude: -87.907726°

(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: 0310635096 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 3512 (US Route 14)Latitude: 42.051157° Longitude: -87.907726°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 2028V-25-B01, -B02, -B04, -B05 were sampled within the construction zone adjacent to ISGS #2028V-25 (Two Men and a Truck Moving Company). Refer to PSI Report for ISGS #2028V-25 (Two Men and a Truck Moving Company) including Table 4-3, and Figure 4-1.

- 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 packages J109738-1 and J109836-2.

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 StreetCity: Chicago State: IL Zip Code: 60603Phone: 312-578-9243

Neil 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-91-439-09; WorkOrder #12

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-91-439-09; WorkOrder #12
CONTAMINANTS OF CONCERN

SITE	ISGS #2028V-25 (Two Men and a Truck Moving Company)						Comparison Criteria				
	2028V-25-B01			2028V-25-B02			MACs			TACO	
	2028V-25-B01 (0-6)	2028V-25-B01 (6-12)	2028V-25-B01 (12-18)	2028V-25-B02 (0-6)	2028V-25-B02 (6-12)	2028V-25-B02 (12-18)	Most Stringent	Within an MSA	Within Chicago	Residential	SCGIER
BORING											
SAMPLE											
MATRIX	Soil	Soil	Soil	Soil	Soil	Soil					
DEPTH (feet)	0-6	6-12	12-18	0-6	6-12	12-18					
pH	8.35	8.29	8.07	8.45	7.67	8.05					
VOCs (mg/kg)											
2-Butanone (MEK)	ND U	ND U	ND U	ND U	0.0083	ND U	--	--	--	--	--
Acetone	ND U	ND U	ND U	ND U	0.054	ND U	25	--	--	70,000	--
SVOCs (mg/kg)											
2-Methylnaphthalene	ND U	ND U	ND U	0.097	0.057	ND U	--	--	--	--	--
Acenaphthene	ND U	ND U	ND U	0.034 J	ND U	ND U	570	--	--	4,700	--
Acenaphthylene	ND U	ND U	ND U	0.0087 J	ND U	ND U	--	--	--	--	--
Anthracene	ND U	ND U	ND U	0.082	ND U	ND U	12,000	--	--	23,000	--
Benzo[a]anthracene	0.037 J	0.01 J	ND U	0.3	0.013 J	ND U	0.9	1.8	1.1	1.8	--
Benzo[a]pyrene	0.048	0.011 J	ND U	0.34 †	0.0089 J	ND U	0.09	2.1	1.3	2.1	--
Benzo[b]fluoranthene	0.083 J	0.019 J	ND U	0.6	0.012 J	0.011 J	0.9	2.1	1.5	2.1	--
Benzo[k]fluoranthene	0.027 J	ND U	ND U	0.13	ND U	ND U	--	--	--	--	--
Benzo[k]fluoranthene	0.032 J	ND U	ND U	0.2	ND U	ND U	9	--	--	9	--
Chrysene	0.055	0.014 J	ND U	0.38	0.014 J	ND U	88	--	--	88	--
Dibenzo(a,h)anthracene	ND UJ	ND U	ND U	0.036 J	ND U	ND U	0.09	0.42	0.2	0.42	--
Dibenzofuran	ND U	ND U	ND U	0.081 J	ND U	ND U	--	--	--	--	--
Fluoranthene	0.088	0.027 J	ND U	0.7	0.016 J	0.0082 J	3,100	--	--	3,100	--
Fluorene	ND U	ND U	ND U	0.032 J	ND U	ND U	560	--	--	3,100	--
Indeno[1,2,3-cd]pyrene	0.027 J	ND U	ND U	0.15	ND U	ND U	0.9	1.6	0.9	1.6	--
Naphthalene	ND U	ND U	ND U	0.042	0.031 J	ND U	1.8	--	--	170	--
Phenanthrene	0.042	0.012 J	ND U	0.53	0.079	0.0091 J	--	--	--	--	--
Pyrene	0.08 J	0.022 J	ND U	0.68	0.019 J	ND U	2,300	--	--	2,300	--
Inorganics (mg/kg)											
Antimony	ND UJ	ND U	ND U	ND U	ND U	ND U	5	--	--	31	--
Arsenic	7.6 J	8.3	7.3	7.1	7.5	6.4	11.3	13	--	13	--
Barium	59	66	53	47	72	55	1,500	--	--	5,500	--
Beryllium	0.63	0.65	0.65	0.47	0.85	0.68	22	--	--	160	--
Boron	12	13	15	11	14	16	40	--	--	16,000	--
Cadmium	ND U	0.18	ND U	0.13	0.041 J	ND U	5.2	--	--	78	--
Calcium	66,000	71,000	80,000	75,000	6,700	90,000	--	--	--	--	--
Chromium	17	20	19	14	23 †	19	21	--	--	230	--
Cobalt	15	18	11	9	16	17	20	--	--	4,700	--
Copper	23 J	23	20	22	25	21	2,900	--	--	2,900	--
Iron	19,000 †m	20,000 †m	19,000 †m	13,000	23,000 †m	18,000 †m	15,000	15,900	--	--	--
Lead	16 J	21	12	34	20	14	107	--	--	400	--
Magnesium	22,000	24,000	24,000	26,000	6,000	23,000	325,000	--	--	--	--
Manganese	360 J	570	300	380	260	360	630	636	--	1,600	--
Mercury	0.028	0.056	0.028	0.039	0.049	0.026	0.89	--	--	10	--
Nickel	32	41	34	24	37	36	100	--	--	1,600	--
Potassium	2,600	2,900	2,800	1,500	2,200	2,700	--	--	--	--	--
Selenium	0.7 J	0.71	0.53 J	0.39 J	0.64	0.5 J	1.3	--	--	390	--
Sodium	210	210	250	240	220	170	--	--	--	--	--
Thallium	0.45 J	0.43 J	ND U	0.35 J	ND U	ND U	2.6	--	--	6.3	--
Vanadium	22	25	23	16	28	23	550	--	--	550	--
Zinc	60	140	59	57	74	59	5,100	--	--	23,000	--
TCLP Metals (mg/L)											
Antimony	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.006
Barium	0.48 J	0.4 J	0.39 J	0.43 J	0.47 J	0.36 J	--	--	--	--	2
Beryllium	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.004
Boron	0.053 J	0.075 J	ND U	0.085 J	0.17 J	0.1 J	--	--	--	--	2
Cadmium	ND U	ND U	ND U	0.0029 J	0.0021 J	ND U	--	--	--	--	0.005
Chromium	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.1
Cobalt	ND U	ND U	ND U	ND U	0.033	ND U	--	--	--	--	1
Iron	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	5
Lead	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.0075
Manganese	0.24 L	0.033	0.84 L	0.19 L	6.5 L	0.79 L	--	--	--	--	0.15
Nickel	ND U	ND U	ND U	ND U	0.025	ND U	--	--	--	--	0.1
Thallium	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.002
Zinc	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	5
SPL Metals (mg/L)											
Antimony	ND U	ND U	ND U	0.01 L	ND U	ND U	--	--	--	--	0.006
Barium	0.45 J	0.25 J	0.3 J	0.39 J	0.21 J	0.22 J	--	--	--	--	2
Beryllium	0.0067 L	ND U	0.0054 L	0.0056 L	ND U	ND U	--	--	--	--	0.004
Boron	0.23	0.17	0.21	0.23	0.23	0.19	--	--	--	--	2
Chromium	0.15 L	0.088	0.12 L	0.13 L	0.063	0.086	--	--	--	--	0.1
Cobalt	0.04	0.016 J	0.034	0.036	0.02 J	0.021 J	--	--	--	--	1
Iron	140 L	69 L	120 L	120 L	59 L	74 L	--	--	--	--	5
Lead	0.081 L	0.026 L	0.05 L	0.11 L	0.028 L	0.031 L	--	--	--	--	0.0075
Manganese	0.63 L	0.26 L	0.59 L	0.63 L	0.48 L	0.38 L	--	--	--	--	0.15
Nickel	0.15 L	0.076	0.13 L	0.13 L	0.067	0.084	--	--	--	--	0.1
Thallium	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.002
Zinc	ND U	ND U	ND U	1.7	ND U	1.6	--	--	--	--	5

**PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-439-09; WorkOrder #12
CONTAMINANTS OF CONCERN**

SITE	ISGS #2028V-25 (Two Men and a Truck Moving Company)						Comparison Criteria				
	2028V-25-B04			2028V-25-B05			MACs			TACO	
BORING	2028V-25-B04 (0-6)	2028V-25-B04 (6-12)	2028V-25-B04 (12-18)	2028V-25-B05 (0-6)	2028V-25-B05 (6-12)	2028V-25-B05 (12-18)	Most Stringent	Within an MSA	Within Chicago	Residential	SCGIER
SAMPLE	Soil	Soil	Soil	Soil	Soil	Soil					
MATRIX	Soil	Soil	Soil	Soil	Soil	Soil					
DEPTH (feet)	0-6	6-12	12-18	0-6	6-12	12-18					
pH	8.38	7.66	7.97	8.23	8	8.02					
VOCs (mg/kg)											
2-Butanone (MEK)	ND U	ND U	ND U	ND U	0.0097	ND U	--	--	--	--	--
Acetone	0.019	ND U	ND U	ND U	0.048	ND U	25	--	--	70,000	--
SVOCS (mg/kg)											
2-Methylnaphthalene	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	--
Acenaphthene	ND U	ND U	ND U	ND U	ND U	ND U	570	--	--	4,700	--
Acenaphthylene	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	--
Anthracene	ND U	ND U	ND U	ND U	ND U	ND U	12,000	--	--	23,000	--
Benzo[a]anthracene	0.0063 J	ND U	ND U	ND U	0.008 J	0.0058 J	0.9	1.8	1.1	1.8	--
Benzo[a]pyrene	ND U	ND U	ND U	ND U	ND U	ND U	0.09	2.1	1.3	2.1	--
Benzo[b]fluoranthene	ND U	ND U	ND U	ND U	0.01 J	ND U	0.9	2.1	1.5	2.1	--
Benzo[g,h,i]perylene	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	--
Benzo[k]fluoranthene	ND U	ND U	ND U	ND U	ND U	ND U	9	--	--	9	--
Chrysene	ND U	ND U	ND U	ND U	ND U	ND U	88	--	--	88	--
Dibenzo[a,h]anthracene	ND U	ND U	ND U	ND U	ND U	ND U	0.09	0.42	0.2	0.42	--
Dibenzofuran	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	--
Fluoranthene	0.0099 J	0.0094 J	ND U	ND U	0.02 J	ND U	3,100	--	--	3,100	--
Fluorene	ND U	ND U	ND U	ND U	ND U	ND U	560	--	--	3,100	--
Indeno[1,2,3-cd]pyrene	ND U	ND U	ND U	ND U	ND U	ND U	0.9	1.6	0.9	1.6	--
Naphthalene	ND U	ND U	ND U	ND U	ND U	ND U	1.8	--	--	170	--
Phenanthrene	0.01 J	0.01 J	0.013 J	0.0099 J	0.016 J	0.0068 J	--	--	--	--	--
Pyrene	0.01 J	ND U	ND U	ND U	0.018 J	0.01 J	2,300	--	--	2,300	--
Inorganics (mg/kg)											
Antimony	ND U	0.5 J	ND U	ND U	22 †	3.6	5	--	--	31	--
Arsenic	6.2	9.2	5.1	6.2	7.8	5.9	11.3	13	--	13	--
Barium	54	83	65	70	74	35	1,500	--	--	5,500	--
Beryllium	0.63	0.79	0.76	0.71	0.78	0.5	22	--	--	160	--
Boron	12	16	14	10	73 †	22	40	--	--	16,000	--
Cadmium	0.12	0.097 J	0.08 J	0.11 J	0.25 †	0.17	5.2	--	--	78	--
Calcium	77,000	23,000	19,000	22,000	6,000	110,000	--	--	--	--	--
Chromium	16	19	20	17	20	13	21	--	--	230	--
Cobalt	12	17	13	11	35 †	14	20	--	--	4,700	--
Copper	21	24	19	20	39	24	2,900	--	--	2,900	--
Iron	17,000 †m	20,000 †m	21,000 †m	17,000 †m	22,000 †m	16,000 †m	15,000	15,900	--	--	--
Lead	15	20	15	44	24	18	107	--	--	400	--
Magnesium	23,000	13,000	12,000	10,000	4,700	32,000	325,000	--	--	--	--
Manganese	350	380	240	250	240	450	630	636	--	1,600	--
Mercury	0.038	0.049	0.034	0.014 J	0.057	0.023	0.89	--	--	10	--
Nickel	31	37	31	28	36	26	100	--	--	1,600	--
Potassium	2,300	2,100	2,400	1,900	2,400	2,200	--	--	--	--	--
Selenium	ND U	0.61	0.63	0.57 J	0.92	0.79	1.3	--	--	390	--
Sodium	1,300	760	440	2,700	740	300	--	--	--	--	--
Thallium	ND U	0.41 J	ND U	ND U	0.43 J	0.71	2.6	--	--	6.3	--
Vanadium	21	24	25	26	27	17	550	--	--	550	--
Zinc	58	70	72	72	110	73	5,100	--	--	23,000	--
TCLP Metals (mg/L)											
Antimony	ND U	ND U	ND U	ND U	0.026 L	0.016 L	--	--	--	--	0.006
Barium	0.47 J	0.63	0.44 J	0.48 J	0.59	0.65	--	--	--	--	2
Beryllium	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.004
Boron	ND U	0.29 J	ND U	ND U	1.1	0.66	--	--	--	--	2
Cadmium	ND U	0.0027 J	ND U	ND U	ND U	ND U	--	--	--	--	0.005
Chromium	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.1
Cobalt	ND U	0.028	0.011 J	0.013 J	0.063	0.06	--	--	--	--	1
Iron	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	5
Lead	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.0075
Manganese	3 L	8 L	3.1 L	4.2 L	4.6 L	7 L	--	--	--	--	0.15
Nickel	ND U	0.021 J	ND U	ND U	0.03	0.033	--	--	--	--	0.1
Thallium	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.002
Zinc	ND U	0.028 J	ND U	ND U	0.11 J	0.045 J	--	--	--	--	5
SPLP Metals (mg/L)											
Antimony	ND U	0.0069 L	ND U	ND U	ND U	0.057 L	--	--	--	--	0.006
Barium	0.45 J	0.11 J	0.19 J	0.84	ND U	0.23 J	--	--	--	--	2
Beryllium	0.0068 L	ND U	ND U	0.0087 L	ND U	ND U	--	--	--	--	0.004
Boron	0.26	0.27	0.3	0.35	0.11	0.59	--	--	--	--	2
Chromium	0.14 L	0.019 J	0.053	0.2 L	ND U	0.058	--	--	--	--	0.1
Cobalt	0.054	ND U	0.016 J	0.072	ND U	0.025	--	--	--	--	1
Iron	140 L	14 L	40 L	200 L	2.1	49 L	--	--	--	--	5
Lead	0.063 L	0.0097 L	0.023 L	0.11 L	ND U	0.02 L	--	--	--	--	0.0075
Manganese	1.4 L	0.18 L	0.35 L	1.7 L	0.031	0.51 L	--	--	--	--	0.15
Nickel	0.14 L	0.017 J	0.045	0.21 L	ND U	0.056	--	--	--	--	0.1
Thallium	ND U	ND U	ND U	0.0032 L	ND U	ND U	--	--	--	--	0.002
Zinc	0.29 J	0.038 J	0.1 J	0.46 J	ND U	0.1 J	--	--	--	--	5

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: 500-109738-1
Client Project/Site: IDOT - Des Plaines - WO 012

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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Designee for
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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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Job ID: 500-109738-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-109738-1

Comments

No additional comments.

Receipt

The samples were received on 4/5/2016 5:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.2° C.

GC/MS VOA

Method(s) 8260B: The laboratory control sample (LCS) for batch 330283 recovered outside control limits for the following analytes: Bromomethane. These analytes were biased high in the LCS and were 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

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

Metals

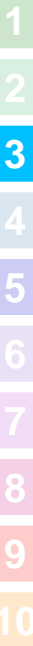
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B01 (0-6)

Lab Sample ID: 500-109738-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.042		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.088		0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.080	F1	0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.037	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.055		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.083	F1	0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.032	J F1	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.048		0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.027	J F1	0.038	0.0098	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.027	J F1	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.6	F1	0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	59		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.63		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	12		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Calcium	66000	B F2	120	38	mg/Kg	10	☼	6010B	Total/NA
Chromium	17	B	0.58	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	15		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	23	F1	0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	19000		12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	16	F1	0.29	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	22000	B	5.8	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	360		0.58	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	32		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2600		29	4.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.70	F1	0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	210		58	7.7	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.45	J	0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Vanadium	22		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	60		1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.48	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.053	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.24		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.076	J B	0.50	0.020	mg/L	1		6010B	TCLP
Barium	0.45	J	0.50	0.050	mg/L	1		6010B	SPLP East
Beryllium	0.0067		0.0040	0.0040	mg/L	1		6010B	SPLP East
Boron	0.23		0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.15		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.040		0.025	0.010	mg/L	1		6010B	SPLP East
Iron	140		0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.081		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.63		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.15		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.45	J B	0.50	0.020	mg/L	1		6010B	SPLP East
Mercury	0.028		0.018	0.0093	mg/Kg	1	☼	7471B	Total/NA
pH	8.35		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 2028V-25-B01 (6-12)

Lab Sample ID: 500-109738-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.012	J	0.039	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B01 (6-12) (Continued)

Lab Sample ID: 500-109738-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.027	J	0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.022	J	0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.010	J	0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.014	J	0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.019	J	0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.011	J	0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Arsenic	8.3		0.60	0.28	mg/Kg	1	☼	6010B	Total/NA
Barium	66		0.60	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.65		0.24	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	13		3.0	0.42	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18		0.12	0.035	mg/Kg	1	☼	6010B	Total/NA
Calcium	71000	B	120	39	mg/Kg	10	☼	6010B	Total/NA
Chromium	20	B	0.60	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	18		0.30	0.068	mg/Kg	1	☼	6010B	Total/NA
Copper	23		0.60	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	20000		12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	21		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	24000	B	6.0	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	570		0.60	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	41		0.60	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2900		30	4.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.71		0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Sodium	210		60	7.9	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.43	J	0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Vanadium	25		0.30	0.088	mg/Kg	1	☼	6010B	Total/NA
Zinc	140		1.2	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	0.40	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.075	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.033		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.28	J B	0.50	0.020	mg/L	1		6010B	TCLP
Barium	0.25	J	0.50	0.050	mg/L	1		6010B	SPLP East
Boron	0.17		0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.088		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.016	J	0.025	0.010	mg/L	1		6010B	SPLP East
Iron	69		0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.026		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.26		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.076		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.16	J B	0.50	0.020	mg/L	1		6010B	SPLP East
Mercury	0.056		0.019	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.29		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 2028V-25-B01 (12-18)

Lab Sample ID: 500-109738-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.3		0.56	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	53		0.56	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.65		0.23	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	15		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Calcium	80000	B	110	36	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B01 (12-18) (Continued)

Lab Sample ID: 500-109738-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	19	B	0.56	0.097	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.28	0.064	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.56	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	19000		11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	12		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	24000	B	5.6	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	300	B	0.56	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	34		0.56	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	2800		28	4.6	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.53	J	0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Sodium	250		56	7.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		0.28	0.082	mg/Kg	1	☼	6010B	Total/NA
Zinc	59		1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.39	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.84		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	1.1	B	0.50	0.020	mg/L	1		6010B	TCLP
Barium	0.30	J	0.50	0.050	mg/L	1		6010B	SPLP East
Beryllium	0.0054		0.0040	0.0040	mg/L	1		6010B	SPLP East
Boron	0.21		0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.12		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.034		0.025	0.010	mg/L	1		6010B	SPLP East
Iron	120		0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.050		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.59		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.13		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.48	J B	0.50	0.020	mg/L	1		6010B	SPLP East
Mercury	0.028		0.019	0.0098	mg/Kg	1	☼	7471B	Total/NA
pH	8.07		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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1



Client Sample ID: 2028V-25-B02 (0-6)

Lab Sample ID: 500-109738-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Naphthalene	0.042		0.040	0.0062	mg/Kg	1	*		8270D	Total/NA
2-Methylnaphthalene	0.097		0.040	0.0074	mg/Kg	1	*		8270D	Total/NA
Acenaphthylene	0.0087	J	0.040	0.0053	mg/Kg	1	*		8270D	Total/NA
Acenaphthene	0.034	J	0.040	0.0072	mg/Kg	1	*		8270D	Total/NA
Dibenzofuran	0.081	J	0.20	0.047	mg/Kg	1	*		8270D	Total/NA
Fluorene	0.032	J	0.040	0.0057	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B02 (0-6) (Continued)

Lab Sample ID: 500-109738-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.53		0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.082		0.040	0.0067	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.70		0.040	0.0075	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.68		0.040	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.30		0.040	0.0054	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.38		0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.60		0.040	0.0087	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.20		0.040	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.34		0.040	0.0078	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.15		0.040	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.036	J	0.040	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.13		0.040	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.1		0.59	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	47		0.59	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.47		0.23	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	11		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.13		0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	75000	B	120	38	mg/Kg	10	☼	6010B	Total/NA
Chromium	14	B	0.59	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.0		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	22		0.59	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	13000		12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	34		0.29	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	26000	B	5.9	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	380	B	0.59	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	24		0.59	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		29	4.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.39	J	0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	240		59	7.7	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.35	J	0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.29	0.086	mg/Kg	1	☼	6010B	Total/NA
Zinc	57		1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.43	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.085	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0029	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.19		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.64	B	0.50	0.020	mg/L	1		6010B	TCLP
Barium	0.39	J	0.50	0.050	mg/L	1		6010B	SPLP East
Beryllium	0.0056		0.0040	0.0040	mg/L	1		6010B	SPLP East
Boron	0.23		0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.13		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.036		0.025	0.010	mg/L	1		6010B	SPLP East
Iron	120		0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.11		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.63		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.13		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	1.7	B	0.50	0.020	mg/L	1		6010B	SPLP East
Antimony	0.010		0.0060	0.0060	mg/L	1		6020A	SPLP East
Mercury	0.039		0.019	0.0098	mg/Kg	1	☼	7471B	Total/NA
pH	8.45		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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B02 (6-12)

Lab Sample ID: 500-109738-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	0.054		0.018	0.0035	mg/Kg	1		☼	8260B	Total/NA
2-Butanone (MEK)	0.0083		0.0045	0.0016	mg/Kg	1		☼	8260B	Total/NA
Naphthalene	0.031	J	0.040	0.0062	mg/Kg	1		☼	8270D	Total/NA
2-Methylnaphthalene	0.057		0.040	0.0074	mg/Kg	1		☼	8270D	Total/NA
Phenanthrene	0.079		0.040	0.0056	mg/Kg	1		☼	8270D	Total/NA
Fluoranthene	0.016	J	0.040	0.0075	mg/Kg	1		☼	8270D	Total/NA
Pyrene	0.019	J	0.040	0.0080	mg/Kg	1		☼	8270D	Total/NA
Benzo[a]anthracene	0.013	J	0.040	0.0054	mg/Kg	1		☼	8270D	Total/NA
Chrysene	0.014	J	0.040	0.011	mg/Kg	1		☼	8270D	Total/NA
Benzo[b]fluoranthene	0.012	J	0.040	0.0087	mg/Kg	1		☼	8270D	Total/NA
Benzo[a]pyrene	0.0089	J	0.040	0.0078	mg/Kg	1		☼	8270D	Total/NA
Arsenic	7.5		0.61	0.28	mg/Kg	1		☼	6010B	Total/NA
Barium	72		0.61	0.11	mg/Kg	1		☼	6010B	Total/NA
Beryllium	0.85		0.25	0.053	mg/Kg	1		☼	6010B	Total/NA
Boron	14		3.1	0.43	mg/Kg	1		☼	6010B	Total/NA
Cadmium	0.041	J	0.12	0.036	mg/Kg	1		☼	6010B	Total/NA
Calcium	6700	B	12	4.0	mg/Kg	1		☼	6010B	Total/NA
Chromium	23	B	0.61	0.11	mg/Kg	1		☼	6010B	Total/NA
Cobalt	16		0.31	0.069	mg/Kg	1		☼	6010B	Total/NA
Copper	25		0.61	0.13	mg/Kg	1		☼	6010B	Total/NA
Iron	23000		12	4.7	mg/Kg	1		☼	6010B	Total/NA
Lead	20		0.31	0.15	mg/Kg	1		☼	6010B	Total/NA
Magnesium	6000	B	6.1	2.5	mg/Kg	1		☼	6010B	Total/NA
Manganese	260	B	0.61	0.12	mg/Kg	1		☼	6010B	Total/NA
Nickel	37		0.61	0.17	mg/Kg	1		☼	6010B	Total/NA
Potassium	2200		31	5.0	mg/Kg	1		☼	6010B	Total/NA
Selenium	0.64		0.61	0.30	mg/Kg	1		☼	6010B	Total/NA
Sodium	220		61	8.1	mg/Kg	1		☼	6010B	Total/NA
Vanadium	28		0.31	0.090	mg/Kg	1		☼	6010B	Total/NA
Zinc	74		1.2	0.39	mg/Kg	1		☼	6010B	Total/NA
Barium	0.47	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.17	J	0.50	0.050	mg/L	1			6010B	TCLP
Cadmium	0.0021	J	0.0050	0.0020	mg/L	1			6010B	TCLP
Cobalt	0.033		0.025	0.010	mg/L	1			6010B	TCLP
Manganese	6.5		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.025		0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.25	J B	0.50	0.020	mg/L	1			6010B	TCLP
Barium	0.21	J	0.50	0.050	mg/L	1			6010B	SPLP East
Boron	0.23		0.10	0.050	mg/L	1			6010B	SPLP East
Chromium	0.063		0.025	0.010	mg/L	1			6010B	SPLP East
Cobalt	0.020	J	0.025	0.010	mg/L	1			6010B	SPLP East
Iron	59		0.40	0.20	mg/L	1			6010B	SPLP East
Lead	0.028		0.0075	0.0075	mg/L	1			6010B	SPLP East
Manganese	0.48		0.025	0.010	mg/L	1			6010B	SPLP East
Nickel	0.067		0.025	0.010	mg/L	1			6010B	SPLP East
Zinc	0.49	J B	0.50	0.020	mg/L	1			6010B	SPLP East
Mercury	0.049		0.019	0.0099	mg/Kg	1		☼	7471B	Total/NA
pH	7.67		0.200	0.200	SU	1			9045D	Total/NA

Client Sample ID: 2028V-25-B02 (12-18)

Lab Sample ID: 500-109738-7

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B02 (12-18) (Continued)

Lab Sample ID: 500-109738-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Phenanthrene	0.0091	J	0.039	0.0054	mg/Kg	1		☼	8270D	Total/NA
Fluoranthene	0.0082	J	0.039	0.0072	mg/Kg	1		☼	8270D	Total/NA
Benzo[b]fluoranthene	0.011	J	0.039	0.0084	mg/Kg	1		☼	8270D	Total/NA
Arsenic	6.4		0.57	0.26	mg/Kg	1		☼	6010B	Total/NA
Barium	55		0.57	0.10	mg/Kg	1		☼	6010B	Total/NA
Beryllium	0.68		0.23	0.049	mg/Kg	1		☼	6010B	Total/NA
Boron	16		2.9	0.40	mg/Kg	1		☼	6010B	Total/NA
Calcium	90000	B	110	37	mg/Kg	10		☼	6010B	Total/NA
Chromium	19	B	0.57	0.098	mg/Kg	1		☼	6010B	Total/NA
Cobalt	17		0.29	0.064	mg/Kg	1		☼	6010B	Total/NA
Copper	21		0.57	0.12	mg/Kg	1		☼	6010B	Total/NA
Iron	18000		11	4.4	mg/Kg	1		☼	6010B	Total/NA
Lead	14		0.29	0.14	mg/Kg	1		☼	6010B	Total/NA
Magnesium	23000	B	5.7	2.3	mg/Kg	1		☼	6010B	Total/NA
Manganese	360	B	0.57	0.11	mg/Kg	1		☼	6010B	Total/NA
Nickel	36		0.57	0.15	mg/Kg	1		☼	6010B	Total/NA
Potassium	2700		29	4.7	mg/Kg	1		☼	6010B	Total/NA
Selenium	0.50	J	0.57	0.28	mg/Kg	1		☼	6010B	Total/NA
Sodium	170		57	7.5	mg/Kg	1		☼	6010B	Total/NA
Vanadium	23		0.29	0.083	mg/Kg	1		☼	6010B	Total/NA
Zinc	59		1.1	0.36	mg/Kg	1		☼	6010B	Total/NA
Barium	0.36	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	1.0	B	0.50	0.020	mg/L	1			6010B	TCLP
Barium	0.22	J	0.50	0.050	mg/L	1			6010B	SPLP East
Boron	0.19		0.10	0.050	mg/L	1			6010B	SPLP East
Chromium	0.086		0.025	0.010	mg/L	1			6010B	SPLP East
Cobalt	0.021	J	0.025	0.010	mg/L	1			6010B	SPLP East
Iron	74		0.40	0.20	mg/L	1			6010B	SPLP East
Lead	0.031		0.0075	0.0075	mg/L	1			6010B	SPLP East
Manganese	0.38		0.025	0.010	mg/L	1			6010B	SPLP East
Nickel	0.084		0.025	0.010	mg/L	1			6010B	SPLP East
Zinc	1.6	B	0.50	0.020	mg/L	1			6010B	SPLP East
Mercury	0.026		0.018	0.0092	mg/Kg	1		☼	7471B	Total/NA
pH	8.05		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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-109738-1	2028V-25-B01 (0-6)	Solid	04/05/16 10:50	04/05/16 17:45
500-109738-2	2028V-25-B01 (6-12)	Solid	04/05/16 10:55	04/05/16 17:45
500-109738-3	2028V-25-B01 (12-18)	Solid	04/05/16 11:00	04/05/16 17:45
500-109738-5	2028V-25-B02 (0-6)	Solid	04/05/16 12:00	04/05/16 17:45
500-109738-6	2028V-25-B02 (6-12)	Solid	04/05/16 12:05	04/05/16 17:45
500-109738-7	2028V-25-B02 (12-18)	Solid	04/05/16 12:10	04/05/16 17:45



Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B01 (0-6)

Lab Sample ID: 500-109738-1

Date Collected: 04/05/16 10:50

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0032	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Benzene	<0.0041		0.0041	0.00091	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Bromodichloromethane	<0.0041		0.0041	0.00069	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Bromoform	<0.0041		0.0041	0.00084	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Bromomethane	<0.0041	*	0.0041	0.0015	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
2-Butanone (MEK)	<0.0041		0.0041	0.0015	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Carbon disulfide	<0.0041		0.0041	0.0015	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Carbon tetrachloride	<0.0041		0.0041	0.00088	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Chlorobenzene	<0.0041		0.0041	0.00097	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Chloroethane	<0.0041		0.0041	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Chloroform	<0.0041		0.0041	0.00080	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Chloromethane	<0.0041		0.0041	0.00099	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
cis-1,2-Dichloroethene	<0.0041		0.0041	0.00084	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
cis-1,3-Dichloropropene	<0.0041		0.0041	0.00094	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Dibromochloromethane	<0.0041		0.0041	0.00047	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
1,1-Dichloroethane	<0.0041		0.0041	0.00085	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
1,2-Dichloroethane	<0.0041		0.0041	0.00061	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
1,1-Dichloroethene	<0.0041		0.0041	0.0015	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
1,2-Dichloropropane	<0.0041		0.0041	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
1,3-Dichloropropene, Total	<0.0041		0.0041	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Ethylbenzene	<0.0041		0.0041	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Methylene Chloride	<0.0041		0.0041	0.0031	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.00085	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Methyl tert-butyl ether	<0.0041		0.0041	0.00097	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Styrene	<0.0041		0.0041	0.00096	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
1,1,2,2-Tetrachloroethane	<0.0041		0.0041	0.00065	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Tetrachloroethene	<0.0041		0.0041	0.00086	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Toluene	<0.0041		0.0041	0.0014	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
trans-1,2-Dichloroethene	<0.0041		0.0041	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
trans-1,3-Dichloropropene	<0.0041		0.0041	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
1,1,1-Trichloroethane	<0.0041		0.0041	0.00096	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
1,1,2-Trichloroethane	<0.0041		0.0041	0.00080	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Trichloroethene	<0.0041		0.0041	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Vinyl acetate	<0.0041		0.0041	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Vinyl chloride	<0.0041		0.0041	0.00098	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1
Xylenes, Total	<0.0082		0.0082	0.0015	mg/Kg	☼	04/06/16 08:50	04/08/16 12:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 120	04/06/16 08:50	04/08/16 12:59	1
Dibromofluoromethane	115		75 - 120	04/06/16 08:50	04/08/16 12:59	1
1,2-Dichloroethane-d4 (Surr)	117		69 - 134	04/06/16 08:50	04/08/16 12:59	1
Toluene-d8 (Surr)	115		75 - 123	04/06/16 08:50	04/08/16 12:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B01 (0-6)

Lab Sample ID: 500-109738-1

Date Collected: 04/05/16 10:50

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 83.8

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	0.045	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
2,4,5-Trichlorophenol	<0.38		0.38	0.086	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Hexachlorocyclopentadiene	<0.76	F1	0.76	0.22	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
2-Methylnaphthalene	<0.038		0.038	0.0070	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
2,4-Dinitrophenol	<0.76	F1	0.76	0.67	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Pentachlorophenol	<0.76	F1	0.76	0.61	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
4,6-Dinitro-2-methylphenol	<0.76	F1	0.76	0.30	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Phenanthrene	0.042		0.038	0.0053	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Anthracene	<0.038		0.038	0.0063	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Fluoranthene	0.088		0.038	0.0070	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Pyrene	0.080	F1	0.038	0.0075	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Butyl benzyl phthalate	<0.19	F1	0.19	0.072	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Benzo[a]anthracene	0.037	J	0.038	0.0051	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B01 (0-6)

Lab Sample ID: 500-109738-1

Date Collected: 04/05/16 10:50

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.055		0.038	0.010	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
3,3'-Dichlorobenzidine	<0.19	F1 F2	0.19	0.053	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Bis(2-ethylhexyl) phthalate	<0.19	F1	0.19	0.069	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Benzo[b]fluoranthene	0.083	F1	0.038	0.0082	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Benzo[k]fluoranthene	0.032	J F1	0.038	0.011	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Benzo[a]pyrene	0.048		0.038	0.0073	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Indeno[1,2,3-cd]pyrene	0.027	J F1	0.038	0.0098	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Dibenz(a,h)anthracene	<0.038	F1	0.038	0.0073	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
Benzo[g,h,i]perylene	0.027	J F1	0.038	0.012	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	04/06/16 16:59	04/08/16 16:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	84		40 - 130	04/06/16 16:59	04/08/16 16:01	1
Phenol-d5	72		36 - 123	04/06/16 16:59	04/08/16 16:01	1
Nitrobenzene-d5	74		33 - 124	04/06/16 16:59	04/08/16 16:01	1
2-Fluorobiphenyl	82		42 - 115	04/06/16 16:59	04/08/16 16:01	1
2,4,6-Tribromophenol	51		25 - 130	04/06/16 16:59	04/08/16 16:01	1
Terphenyl-d14	83		25 - 150	04/06/16 16:59	04/08/16 16:01	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2	F1	1.2	0.24	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	1
Arsenic	7.6	F1	0.58	0.27	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	1
Barium	59		0.58	0.11	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	1
Beryllium	0.63		0.23	0.050	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	1
Boron	12		2.9	0.41	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	1
Cadmium	<0.12		0.12	0.034	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	1
Calcium	66000	B F2	120	38	mg/Kg	☼	04/06/16 16:06	04/07/16 14:32	10
Chromium	17	B	0.58	0.10	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	1
Cobalt	15		0.29	0.066	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	1
Copper	23	F1	0.58	0.13	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	1
Iron	19000		12	4.5	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	1
Lead	16	F1	0.29	0.15	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	1
Magnesium	22000	B	5.8	2.4	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	1
Manganese	360		0.58	0.12	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	1
Nickel	32		0.58	0.16	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	1
Potassium	2600		29	4.8	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	1
Selenium	0.70	F1	0.58	0.29	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	1
Sodium	210		58	7.7	mg/Kg	☼	04/06/16 16:06	04/08/16 00:13	1
Thallium	0.45	J	0.58	0.29	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	1
Vanadium	22		0.29	0.085	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	1
Zinc	60		1.2	0.37	mg/Kg	☼	04/06/16 16:06	04/07/16 13:04	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		04/07/16 14:27	04/08/16 13:17	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/07/16 14:27	04/08/16 13:17	1
Boron	0.053	J	0.50	0.050	mg/L		04/07/16 14:27	04/08/16 13:17	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B01 (0-6)

Lab Sample ID: 500-109738-1

Date Collected: 04/05/16 10:50

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 83.8

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		04/07/16 14:27	04/08/16 13:17	1
Chromium	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:17	1
Cobalt	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:17	1
Iron	<0.40		0.40	0.20	mg/L		04/07/16 14:27	04/08/16 13:17	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/07/16 14:27	04/08/16 13:17	1
Manganese	0.24		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:17	1
Nickel	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:17	1
Selenium	<0.050		0.050	0.020	mg/L		04/07/16 14:27	04/08/16 13:17	1
Silver	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:17	1
Zinc	0.076	J B	0.50	0.020	mg/L		04/07/16 14:27	04/08/16 13:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.45	J	0.50	0.050	mg/L		04/07/16 14:28	04/08/16 18:32	1
Beryllium	0.0067		0.0040	0.0040	mg/L		04/07/16 14:28	04/08/16 18:32	1
Boron	0.23		0.10	0.050	mg/L		04/07/16 14:28	04/08/16 18:32	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/07/16 14:28	04/08/16 18:32	1
Chromium	0.15		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:32	1
Cobalt	0.040		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:32	1
Iron	140		0.40	0.20	mg/L		04/07/16 14:28	04/08/16 18:32	1
Lead	0.081		0.0075	0.0075	mg/L		04/07/16 14:28	04/08/16 18:32	1
Manganese	0.63		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:32	1
Nickel	0.15		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:32	1
Selenium	<0.050		0.050	0.020	mg/L		04/07/16 14:28	04/08/16 18:32	1
Silver	<0.025		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:32	1
Zinc	0.45	J B	0.50	0.020	mg/L		04/07/16 14:28	04/08/16 18:32	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		04/07/16 14:27	04/08/16 16:39	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/07/16 14:27	04/08/16 16:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/07/16 14:28	04/08/16 17:01	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/07/16 14:28	04/08/16 17:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/07/16 13:30	04/08/16 09:27	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		04/07/16 13:30	04/08/16 10:02	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.018	0.0093	mg/Kg	☼	04/06/16 12:15	04/07/16 10:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B01 (0-6)

Lab Sample ID: 500-109738-1

Date Collected: 04/05/16 10:50

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 83.8

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.35		0.200	0.200	SU			04/08/16 11:48	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B01 (6-12)

Lab Sample ID: 500-109738-2

Date Collected: 04/05/16 10:55

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0035	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Benzene	<0.0045		0.0045	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Bromodichloromethane	<0.0045		0.0045	0.00077	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Bromoform	<0.0045		0.0045	0.00093	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Bromomethane	<0.0045	*	0.0045	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Carbon disulfide	<0.0045		0.0045	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Carbon tetrachloride	<0.0045		0.0045	0.00097	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Chloroethane	<0.0045		0.0045	0.0019	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Chloroform	<0.0045		0.0045	0.00089	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00093	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Dibromochloromethane	<0.0045		0.0045	0.00052	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
1,1-Dichloroethane	<0.0045		0.0045	0.00094	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
1,2-Dichloroethane	<0.0045		0.0045	0.00067	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
1,1-Dichloroethene	<0.0045		0.0045	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Methylene Chloride	<0.0045		0.0045	0.0034	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00094	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Styrene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
1,1,1,2-Tetrachloroethane	<0.0045		0.0045	0.00072	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Tetrachloroethene	<0.0045		0.0045	0.00095	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00088	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Vinyl acetate	<0.0045		0.0045	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1
Xylenes, Total	<0.0091		0.0091	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 13:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 120	04/06/16 08:50	04/08/16 13:23	1
Dibromofluoromethane	113		75 - 120	04/06/16 08:50	04/08/16 13:23	1
1,2-Dichloroethane-d4 (Surr)	114		69 - 134	04/06/16 08:50	04/08/16 13:23	1
Toluene-d8 (Surr)	114		75 - 123	04/06/16 08:50	04/08/16 13:23	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	☼	04/06/16 16:59	04/08/16 13:06	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B01 (6-12)

Lab Sample ID: 500-109738-2

Date Collected: 04/05/16 10:55

Matrix: Solid

Date Received: 04/05/16 17:45

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	0.047	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Phenanthrene	0.012	J	0.039	0.0055	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Fluoranthene	0.027	J	0.039	0.0073	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Pyrene	0.022	J	0.039	0.0078	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Benzo[a]anthracene	0.010	J	0.039	0.0053	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B01 (6-12)

Lab Sample ID: 500-109738-2

Date Collected: 04/05/16 10:55

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.014	J	0.039	0.011	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Benzo[b]fluoranthene	0.019	J	0.039	0.0084	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Benzo[a]pyrene	0.011	J	0.039	0.0076	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	04/06/16 16:59	04/08/16 13:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	93		40 - 130	04/06/16 16:59	04/08/16 13:06	1
Phenol-d5	94		36 - 123	04/06/16 16:59	04/08/16 13:06	1
Nitrobenzene-d5	77		33 - 124	04/06/16 16:59	04/08/16 13:06	1
2-Fluorobiphenyl	87		42 - 115	04/06/16 16:59	04/08/16 13:06	1
2,4,6-Tribromophenol	73		25 - 130	04/06/16 16:59	04/08/16 13:06	1
Terphenyl-d14	93		25 - 150	04/06/16 16:59	04/08/16 13:06	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	☼	04/06/16 16:06	04/07/16 13:28	1
Arsenic	8.3		0.60	0.28	mg/Kg	☼	04/06/16 16:06	04/07/16 13:28	1
Barium	66		0.60	0.11	mg/Kg	☼	04/06/16 16:06	04/07/16 13:28	1
Beryllium	0.65		0.24	0.052	mg/Kg	☼	04/06/16 16:06	04/07/16 13:28	1
Boron	13		3.0	0.42	mg/Kg	☼	04/06/16 16:06	04/07/16 13:28	1
Cadmium	0.18		0.12	0.035	mg/Kg	☼	04/06/16 16:06	04/07/16 13:28	1
Calcium	71000	B	120	39	mg/Kg	☼	04/06/16 16:06	04/07/16 15:06	10
Chromium	20	B	0.60	0.10	mg/Kg	☼	04/06/16 16:06	04/07/16 13:28	1
Cobalt	18		0.30	0.068	mg/Kg	☼	04/06/16 16:06	04/07/16 13:28	1
Copper	23		0.60	0.13	mg/Kg	☼	04/06/16 16:06	04/07/16 13:28	1
Iron	20000		12	4.6	mg/Kg	☼	04/06/16 16:06	04/07/16 13:28	1
Lead	21		0.30	0.15	mg/Kg	☼	04/06/16 16:06	04/07/16 13:28	1
Magnesium	24000	B	6.0	2.4	mg/Kg	☼	04/06/16 16:06	04/07/16 13:28	1
Manganese	570		0.60	0.12	mg/Kg	☼	04/06/16 16:06	04/07/16 13:28	1
Nickel	41		0.60	0.16	mg/Kg	☼	04/06/16 16:06	04/07/16 13:28	1
Potassium	2900		30	4.9	mg/Kg	☼	04/06/16 16:06	04/07/16 13:28	1
Selenium	0.71		0.60	0.30	mg/Kg	☼	04/06/16 16:06	04/07/16 13:28	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	04/06/16 16:06	04/07/16 13:28	1
Sodium	210		60	7.9	mg/Kg	☼	04/06/16 16:06	04/08/16 00:38	1
Thallium	0.43	J	0.60	0.30	mg/Kg	☼	04/06/16 16:06	04/07/16 13:28	1
Vanadium	25		0.30	0.088	mg/Kg	☼	04/06/16 16:06	04/07/16 13:28	1
Zinc	140		1.2	0.38	mg/Kg	☼	04/06/16 16:06	04/07/16 13:28	1

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		04/07/16 14:27	04/08/16 13:30	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/07/16 14:27	04/08/16 13:30	1
Boron	0.075	J	0.50	0.050	mg/L		04/07/16 14:27	04/08/16 13:30	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B01 (6-12)

Lab Sample ID: 500-109738-2

Date Collected: 04/05/16 10:55

Matrix: Solid

Date Received: 04/05/16 17:45

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		04/07/16 14:27	04/08/16 13:30	1
Chromium	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:30	1
Cobalt	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:30	1
Iron	<0.40		0.40	0.20	mg/L		04/07/16 14:27	04/08/16 13:30	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/07/16 14:27	04/08/16 13:30	1
Manganese	0.033		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:30	1
Nickel	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:30	1
Selenium	<0.050		0.050	0.020	mg/L		04/07/16 14:27	04/08/16 13:30	1
Silver	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:30	1
Zinc	0.28	J B	0.50	0.020	mg/L		04/07/16 14:27	04/08/16 13:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.25	J	0.50	0.050	mg/L		04/07/16 14:28	04/08/16 18:39	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/07/16 14:28	04/08/16 18:39	1
Boron	0.17		0.10	0.050	mg/L		04/07/16 14:28	04/08/16 18:39	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/07/16 14:28	04/08/16 18:39	1
Chromium	0.088		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:39	1
Cobalt	0.016	J	0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:39	1
Iron	69		0.40	0.20	mg/L		04/07/16 14:28	04/08/16 18:39	1
Lead	0.026		0.0075	0.0075	mg/L		04/07/16 14:28	04/08/16 18:39	1
Manganese	0.26		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:39	1
Nickel	0.076		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:39	1
Selenium	<0.050		0.050	0.020	mg/L		04/07/16 14:28	04/08/16 18:39	1
Silver	<0.025		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:39	1
Zinc	0.16	J B	0.50	0.020	mg/L		04/07/16 14:28	04/08/16 18:39	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		04/07/16 14:27	04/08/16 16:40	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/07/16 14:27	04/08/16 16:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/07/16 14:28	04/08/16 17:02	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/07/16 14:28	04/08/16 17:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/07/16 13:30	04/08/16 09:29	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		04/07/16 13:30	04/08/16 10:08	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.056		0.019	0.010	mg/Kg	☼	04/06/16 12:15	04/07/16 10:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B01 (6-12)

Lab Sample ID: 500-109738-2

Date Collected: 04/05/16 10:55

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 81.6

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.29		0.200	0.200	SU			04/08/16 11:54	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B01 (12-18)

Lab Sample ID: 500-109738-3

Date Collected: 04/05/16 11:00

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 83.6

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	☼	04/06/16 08:50	04/08/16 13:47	1
Benzene	<0.0042		0.0042	0.00093	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Bromodichloromethane	<0.0042		0.0042	0.00070	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Bromoform	<0.0042		0.0042	0.00085	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Bromomethane	<0.0042	*	0.0042	0.0015	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
2-Butanone (MEK)	<0.0042		0.0042	0.0015	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Carbon disulfide	<0.0042		0.0042	0.0015	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Carbon tetrachloride	<0.0042		0.0042	0.00089	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Chlorobenzene	<0.0042		0.0042	0.00098	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Chloroethane	<0.0042		0.0042	0.0018	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Chloroform	<0.0042		0.0042	0.00081	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Chloromethane	<0.0042		0.0042	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
cis-1,2-Dichloroethene	<0.0042		0.0042	0.00085	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
cis-1,3-Dichloropropene	<0.0042		0.0042	0.00095	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Dibromochloromethane	<0.0042		0.0042	0.00048	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
1,1-Dichloroethane	<0.0042		0.0042	0.00086	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
1,2-Dichloroethane	<0.0042		0.0042	0.00062	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
1,1-Dichloroethene	<0.0042		0.0042	0.0015	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
1,2-Dichloropropane	<0.0042		0.0042	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
1,3-Dichloropropane, Total	<0.0042		0.0042	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Ethylbenzene	<0.0042		0.0042	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Methylene Chloride	<0.0042		0.0042	0.0032	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.00086	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Methyl tert-butyl ether	<0.0042		0.0042	0.00098	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Styrene	<0.0042		0.0042	0.00098	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
1,1,2,2-Tetrachloroethane	<0.0042		0.0042	0.00066	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Tetrachloroethene	<0.0042		0.0042	0.00087	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Toluene	<0.0042		0.0042	0.0015	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
trans-1,2-Dichloroethene	<0.0042		0.0042	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
trans-1,3-Dichloropropene	<0.0042		0.0042	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
1,1,1-Trichloroethane	<0.0042		0.0042	0.00097	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
1,1,2-Trichloroethane	<0.0042		0.0042	0.00081	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Trichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Vinyl acetate	<0.0042		0.0042	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Vinyl chloride	<0.0042		0.0042	0.00099	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1
Xylenes, Total	<0.0083		0.0083	0.0015	mg/Kg	☼	04/06/16 08:50	04/08/16 13:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 120	04/06/16 08:50	04/08/16 13:47	1
Dibromofluoromethane	116		75 - 120	04/06/16 08:50	04/08/16 13:47	1
1,2-Dichloroethane-d4 (Surr)	119		69 - 134	04/06/16 08:50	04/08/16 13:47	1
Toluene-d8 (Surr)	114		75 - 123	04/06/16 08:50	04/08/16 13:47	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	☼	04/06/16 16:59	04/08/16 13:35	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B01 (12-18)

Lab Sample ID: 500-109738-3

Date Collected: 04/05/16 11:00

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 83.6

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	0.047	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Phenanthrene	<0.039		0.039	0.0055	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B01 (12-18)

Lab Sample ID: 500-109738-3

Date Collected: 04/05/16 11:00

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 83.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	04/06/16 16:59	04/08/16 13:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	83		40 - 130	04/06/16 16:59	04/08/16 13:35	1
Phenol-d5	87		36 - 123	04/06/16 16:59	04/08/16 13:35	1
Nitrobenzene-d5	77		33 - 124	04/06/16 16:59	04/08/16 13:35	1
2-Fluorobiphenyl	87		42 - 115	04/06/16 16:59	04/08/16 13:35	1
2,4,6-Tribromophenol	73		25 - 130	04/06/16 16:59	04/08/16 13:35	1
Terphenyl-d14	95		25 - 150	04/06/16 16:59	04/08/16 13:35	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	☼	04/06/16 16:06	04/07/16 13:46	1
Arsenic	7.3		0.56	0.26	mg/Kg	☼	04/06/16 16:06	04/07/16 13:46	1
Barium	53		0.56	0.10	mg/Kg	☼	04/06/16 16:06	04/07/16 13:46	1
Beryllium	0.65		0.23	0.049	mg/Kg	☼	04/06/16 16:06	04/08/16 00:43	1
Boron	15		2.8	0.39	mg/Kg	☼	04/06/16 16:06	04/07/16 13:46	1
Cadmium	<0.11		0.11	0.033	mg/Kg	☼	04/06/16 16:06	04/07/16 13:46	1
Calcium	80000 B		110	36	mg/Kg	☼	04/06/16 16:06	04/07/16 15:10	10
Chromium	19 B		0.56	0.097	mg/Kg	☼	04/06/16 16:06	04/07/16 13:46	1
Cobalt	11		0.28	0.064	mg/Kg	☼	04/06/16 16:06	04/07/16 13:46	1
Copper	20		0.56	0.12	mg/Kg	☼	04/06/16 16:06	04/07/16 13:46	1
Iron	19000		11	4.3	mg/Kg	☼	04/06/16 16:06	04/07/16 13:46	1
Lead	12		0.28	0.14	mg/Kg	☼	04/06/16 16:06	04/07/16 13:46	1
Magnesium	24000 B		5.6	2.3	mg/Kg	☼	04/06/16 16:06	04/07/16 13:46	1
Manganese	300 B		0.56	0.11	mg/Kg	☼	04/06/16 16:06	04/08/16 00:43	1
Nickel	34		0.56	0.15	mg/Kg	☼	04/06/16 16:06	04/07/16 13:46	1
Potassium	2800		28	4.6	mg/Kg	☼	04/06/16 16:06	04/08/16 00:43	1
Selenium	0.53 J		0.56	0.28	mg/Kg	☼	04/06/16 16:06	04/07/16 13:46	1
Silver	<0.28		0.28	0.066	mg/Kg	☼	04/06/16 16:06	04/07/16 13:46	1
Sodium	250		56	7.4	mg/Kg	☼	04/06/16 16:06	04/08/16 00:43	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	04/06/16 16:06	04/07/16 13:46	1
Vanadium	23		0.28	0.082	mg/Kg	☼	04/06/16 16:06	04/07/16 13:46	1
Zinc	59		1.1	0.36	mg/Kg	☼	04/06/16 16:06	04/07/16 13:46	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		04/07/16 14:27	04/08/16 13:35	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/07/16 14:27	04/08/16 13:35	1
Boron	<0.50		0.50	0.050	mg/L		04/07/16 14:27	04/08/16 13:35	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B01 (12-18)

Lab Sample ID: 500-109738-3

Date Collected: 04/05/16 11:00

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 83.6

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		04/07/16 14:27	04/08/16 13:35	1
Chromium	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:35	1
Cobalt	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:35	1
Iron	<0.40		0.40	0.20	mg/L		04/07/16 14:27	04/08/16 13:35	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/07/16 14:27	04/08/16 13:35	1
Manganese	0.84		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:35	1
Nickel	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:35	1
Selenium	<0.050		0.050	0.020	mg/L		04/07/16 14:27	04/08/16 13:35	1
Silver	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:35	1
Zinc	1.1	B	0.50	0.020	mg/L		04/07/16 14:27	04/08/16 13:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.30	J	0.50	0.050	mg/L		04/07/16 14:28	04/08/16 18:46	1
Beryllium	0.0054		0.0040	0.0040	mg/L		04/07/16 14:28	04/08/16 18:46	1
Boron	0.21		0.10	0.050	mg/L		04/07/16 14:28	04/08/16 18:46	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/07/16 14:28	04/08/16 18:46	1
Chromium	0.12		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:46	1
Cobalt	0.034		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:46	1
Iron	120		0.40	0.20	mg/L		04/07/16 14:28	04/08/16 18:46	1
Lead	0.050		0.0075	0.0075	mg/L		04/07/16 14:28	04/08/16 18:46	1
Manganese	0.59		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:46	1
Nickel	0.13		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:46	1
Selenium	<0.050		0.050	0.020	mg/L		04/07/16 14:28	04/08/16 18:46	1
Silver	<0.025		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:46	1
Zinc	0.48	J B	0.50	0.020	mg/L		04/07/16 14:28	04/08/16 18:46	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		04/07/16 14:27	04/08/16 16:40	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/07/16 14:27	04/08/16 16:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/07/16 14:28	04/08/16 17:03	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/07/16 14:28	04/08/16 17:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/07/16 13:30	04/08/16 09:35	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		04/07/16 13:30	04/08/16 10:14	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.019	0.0098	mg/Kg	☼	04/06/16 12:15	04/07/16 10:52	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B01 (12-18)

Lab Sample ID: 500-109738-3

Date Collected: 04/05/16 11:00

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 83.6

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.07		0.200	0.200	SU			04/08/16 12:01	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B02 (0-6)

Lab Sample ID: 500-109738-5

Date Collected: 04/05/16 12:00

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 81.7

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	☼	04/06/16 08:50	04/08/16 14:35	1
Benzene	<0.0055		0.0055	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Bromodichloromethane	<0.0055		0.0055	0.00093	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Bromoform	<0.0055		0.0055	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Bromomethane	<0.0055	*	0.0055	0.0020	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
2-Butanone (MEK)	<0.0055		0.0055	0.0020	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Carbon disulfide	<0.0055		0.0055	0.0020	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Carbon tetrachloride	<0.0055		0.0055	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Chlorobenzene	<0.0055		0.0055	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Chloroethane	<0.0055		0.0055	0.0023	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Chloroform	<0.0055		0.0055	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Chloromethane	<0.0055		0.0055	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
cis-1,2-Dichloroethene	<0.0055		0.0055	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
cis-1,3-Dichloropropene	<0.0055		0.0055	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Dibromochloromethane	<0.0055		0.0055	0.00063	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
1,1-Dichloroethane	<0.0055		0.0055	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
1,2-Dichloroethane	<0.0055		0.0055	0.00081	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
1,1-Dichloroethene	<0.0055		0.0055	0.0020	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
1,2-Dichloropropane	<0.0055		0.0055	0.0014	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
1,3-Dichloropropane, Total	<0.0055		0.0055	0.0015	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Ethylbenzene	<0.0055		0.0055	0.0014	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
2-Hexanone	<0.0055		0.0055	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Methylene Chloride	<0.0055		0.0055	0.0041	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
4-Methyl-2-pentanone (MIBK)	<0.0055		0.0055	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Methyl tert-butyl ether	<0.0055		0.0055	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Styrene	<0.0055		0.0055	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
1,1,2,2-Tetrachloroethane	<0.0055		0.0055	0.00087	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Tetrachloroethene	<0.0055		0.0055	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Toluene	<0.0055		0.0055	0.0019	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
trans-1,2-Dichloroethene	<0.0055		0.0055	0.0014	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
trans-1,3-Dichloropropene	<0.0055		0.0055	0.0015	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
1,1,1-Trichloroethane	<0.0055		0.0055	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
1,1,2-Trichloroethane	<0.0055		0.0055	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Trichloroethene	<0.0055		0.0055	0.0015	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Vinyl acetate	<0.0055		0.0055	0.0015	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Vinyl chloride	<0.0055		0.0055	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1
Xylenes, Total	<0.011		0.011	0.0020	mg/Kg	☼	04/06/16 08:50	04/08/16 14:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 120	04/06/16 08:50	04/08/16 14:35	1
Dibromofluoromethane	115		75 - 120	04/06/16 08:50	04/08/16 14:35	1
1,2-Dichloroethane-d4 (Surr)	116		69 - 134	04/06/16 08:50	04/08/16 14:35	1
Toluene-d8 (Surr)	114		75 - 123	04/06/16 08:50	04/08/16 14:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.090	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B02 (0-6)

Lab Sample ID: 500-109738-5

Date Collected: 04/05/16 12:00

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 81.7

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	☼	04/06/16 16:59	04/08/16 16:31	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Naphthalene	0.042		0.040	0.0062	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
2-Methylnaphthalene	0.097		0.040	0.0074	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Acenaphthylene	0.0087 J		0.040	0.0053	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Acenaphthene	0.034 J		0.040	0.0072	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Dibenzofuran	0.081 J		0.20	0.047	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Fluorene	0.032 J		0.040	0.0057	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Pentachlorophenol	<0.81		0.81	0.65	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Phenanthrene	0.53		0.040	0.0056	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Anthracene	0.082		0.040	0.0067	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Fluoranthene	0.70		0.040	0.0075	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Pyrene	0.68		0.040	0.0080	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Benzo[a]anthracene	0.30		0.040	0.0054	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B02 (0-6)

Lab Sample ID: 500-109738-5

Date Collected: 04/05/16 12:00

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 81.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.38		0.040	0.011	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Benzo[b]fluoranthene	0.60		0.040	0.0087	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Benzo[k]fluoranthene	0.20		0.040	0.012	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Benzo[a]pyrene	0.34		0.040	0.0078	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Indeno[1,2,3-cd]pyrene	0.15		0.040	0.010	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Dibenz(a,h)anthracene	0.036	J	0.040	0.0078	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
Benzo[g,h,i]perylene	0.13		0.040	0.013	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	04/06/16 16:59	04/08/16 16:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	86		40 - 130	04/06/16 16:59	04/08/16 16:31	1
Phenol-d5	86		36 - 123	04/06/16 16:59	04/08/16 16:31	1
Nitrobenzene-d5	73		33 - 124	04/06/16 16:59	04/08/16 16:31	1
2-Fluorobiphenyl	85		42 - 115	04/06/16 16:59	04/08/16 16:31	1
2,4,6-Tribromophenol	82		25 - 130	04/06/16 16:59	04/08/16 16:31	1
Terphenyl-d14	105		25 - 150	04/06/16 16:59	04/08/16 16:31	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	☼	04/06/16 16:06	04/07/16 13:56	1
Arsenic	7.1		0.59	0.27	mg/Kg	☼	04/06/16 16:06	04/07/16 13:56	1
Barium	47		0.59	0.11	mg/Kg	☼	04/06/16 16:06	04/07/16 13:56	1
Beryllium	0.47		0.23	0.051	mg/Kg	☼	04/06/16 16:06	04/08/16 01:01	1
Boron	11		2.9	0.41	mg/Kg	☼	04/06/16 16:06	04/07/16 13:56	1
Cadmium	0.13		0.12	0.034	mg/Kg	☼	04/06/16 16:06	04/07/16 13:56	1
Calcium	75000	B	120	38	mg/Kg	☼	04/06/16 16:06	04/07/16 15:18	10
Chromium	14	B	0.59	0.10	mg/Kg	☼	04/06/16 16:06	04/07/16 13:56	1
Cobalt	9.0		0.29	0.066	mg/Kg	☼	04/06/16 16:06	04/07/16 13:56	1
Copper	22		0.59	0.13	mg/Kg	☼	04/06/16 16:06	04/07/16 13:56	1
Iron	13000		12	4.5	mg/Kg	☼	04/06/16 16:06	04/07/16 13:56	1
Lead	34		0.29	0.15	mg/Kg	☼	04/06/16 16:06	04/07/16 13:56	1
Magnesium	26000	B	5.9	2.4	mg/Kg	☼	04/06/16 16:06	04/07/16 13:56	1
Manganese	380	B	0.59	0.12	mg/Kg	☼	04/06/16 16:06	04/08/16 01:01	1
Nickel	24		0.59	0.16	mg/Kg	☼	04/06/16 16:06	04/07/16 13:56	1
Potassium	1500		29	4.8	mg/Kg	☼	04/06/16 16:06	04/08/16 01:01	1
Selenium	0.39	J	0.59	0.29	mg/Kg	☼	04/06/16 16:06	04/07/16 13:56	1
Silver	<0.29		0.29	0.069	mg/Kg	☼	04/06/16 16:06	04/07/16 13:56	1
Sodium	240		59	7.7	mg/Kg	☼	04/06/16 16:06	04/08/16 01:01	1
Thallium	0.35	J	0.59	0.29	mg/Kg	☼	04/06/16 16:06	04/07/16 13:56	1
Vanadium	16		0.29	0.086	mg/Kg	☼	04/06/16 16:06	04/07/16 13:56	1
Zinc	57		1.2	0.37	mg/Kg	☼	04/06/16 16:06	04/07/16 13:56	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		04/07/16 14:27	04/08/16 13:46	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/07/16 14:27	04/08/16 13:46	1
Boron	0.085	J	0.50	0.050	mg/L		04/07/16 14:27	04/08/16 13:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B02 (0-6)

Lab Sample ID: 500-109738-5

Date Collected: 04/05/16 12:00

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 81.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0029	J	0.0050	0.0020	mg/L		04/07/16 14:27	04/08/16 13:46	1
Chromium	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:46	1
Cobalt	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:46	1
Iron	<0.40		0.40	0.20	mg/L		04/07/16 14:27	04/08/16 13:46	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/07/16 14:27	04/08/16 13:46	1
Manganese	0.19		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:46	1
Nickel	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:46	1
Selenium	<0.050		0.050	0.020	mg/L		04/07/16 14:27	04/08/16 13:46	1
Silver	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:46	1
Zinc	0.64	B	0.50	0.020	mg/L		04/07/16 14:27	04/08/16 13:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.39	J	0.50	0.050	mg/L		04/07/16 14:28	04/08/16 18:59	1
Beryllium	0.0056		0.0040	0.0040	mg/L		04/07/16 14:28	04/08/16 18:59	1
Boron	0.23		0.10	0.050	mg/L		04/07/16 14:28	04/08/16 18:59	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/07/16 14:28	04/08/16 18:59	1
Chromium	0.13		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:59	1
Cobalt	0.036		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:59	1
Iron	120		0.40	0.20	mg/L		04/07/16 14:28	04/08/16 18:59	1
Lead	0.11		0.0075	0.0075	mg/L		04/07/16 14:28	04/08/16 18:59	1
Manganese	0.63		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:59	1
Nickel	0.13		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:59	1
Selenium	<0.050		0.050	0.020	mg/L		04/07/16 14:28	04/08/16 18:59	1
Silver	<0.025		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 18:59	1
Zinc	1.7	B	0.50	0.020	mg/L		04/07/16 14:28	04/08/16 18:59	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		04/07/16 14:27	04/08/16 16:42	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/07/16 14:27	04/08/16 16:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.010		0.0060	0.0060	mg/L		04/07/16 14:28	04/08/16 17:04	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/07/16 14:28	04/08/16 17:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/07/16 13:30	04/08/16 09:39	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		04/07/16 13:30	04/08/16 10:18	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.039		0.019	0.0098	mg/Kg	☼	04/06/16 12:15	04/07/16 10:57	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B02 (0-6)

Lab Sample ID: 500-109738-5

Date Collected: 04/05/16 12:00

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 81.7

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.45		0.200	0.200	SU			04/08/16 11:15	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B02 (6-12)

Lab Sample ID: 500-109738-6

Date Collected: 04/05/16 12:05

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 81.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.054		0.018	0.0035	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Benzene	<0.0045		0.0045	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Bromodichloromethane	<0.0045		0.0045	0.00076	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Bromoform	<0.0045		0.0045	0.00092	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Bromomethane	<0.0045 *		0.0045	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
2-Butanone (MEK)	0.0083		0.0045	0.0016	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Carbon disulfide	<0.0045		0.0045	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Carbon tetrachloride	<0.0045		0.0045	0.00096	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Chloroethane	<0.0045		0.0045	0.0019	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Chloroform	<0.0045		0.0045	0.00088	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00092	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Dibromochloromethane	<0.0045		0.0045	0.00052	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
1,1-Dichloroethane	<0.0045		0.0045	0.00093	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
1,2-Dichloroethane	<0.0045		0.0045	0.00067	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
1,1-Dichloroethene	<0.0045		0.0045	0.0016	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Methylene Chloride	<0.0045		0.0045	0.0034	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00093	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Styrene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
1,1,1,2-Tetrachloroethane	<0.0045		0.0045	0.00071	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Tetrachloroethene	<0.0045		0.0045	0.00094	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00087	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Vinyl acetate	<0.0045		0.0045	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1
Xylenes, Total	<0.0090		0.0090	0.0017	mg/Kg	☼	04/06/16 08:50	04/08/16 14:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 120	04/06/16 08:50	04/08/16 14:58	1
Dibromofluoromethane	114		75 - 120	04/06/16 08:50	04/08/16 14:58	1
1,2-Dichloroethane-d4 (Surr)	117		69 - 134	04/06/16 08:50	04/08/16 14:58	1
Toluene-d8 (Surr)	112		75 - 123	04/06/16 08:50	04/08/16 14:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.090	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B02 (6-12)

Lab Sample ID: 500-109738-6

Date Collected: 04/05/16 12:05

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 81.0

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	0.048	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Naphthalene	0.031	J	0.040	0.0062	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
2-Methylnaphthalene	0.057		0.040	0.0074	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Hexachlorobenzene	<0.081		0.081	0.0094	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Pentachlorophenol	<0.81		0.81	0.65	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Phenanthrene	0.079		0.040	0.0056	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Fluoranthene	0.016	J	0.040	0.0075	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Pyrene	0.019	J	0.040	0.0080	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Benzo[a]anthracene	0.013	J	0.040	0.0054	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B02 (6-12)

Lab Sample ID: 500-109738-6

Date Collected: 04/05/16 12:05

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 81.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.014	J	0.040	0.011	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Benzo[b]fluoranthene	0.012	J	0.040	0.0087	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Benzo[a]pyrene	0.0089	J	0.040	0.0078	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	04/06/16 16:59	04/08/16 15:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	90		40 - 130	04/06/16 16:59	04/08/16 15:03	1
Phenol-d5	98		36 - 123	04/06/16 16:59	04/08/16 15:03	1
Nitrobenzene-d5	90		33 - 124	04/06/16 16:59	04/08/16 15:03	1
2-Fluorobiphenyl	99		42 - 115	04/06/16 16:59	04/08/16 15:03	1
2,4,6-Tribromophenol	102		25 - 130	04/06/16 16:59	04/08/16 15:03	1
Terphenyl-d14	114		25 - 150	04/06/16 16:59	04/08/16 15:03	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	☼	04/06/16 16:06	04/07/16 14:01	1
Arsenic	7.5		0.61	0.28	mg/Kg	☼	04/06/16 16:06	04/07/16 14:01	1
Barium	72		0.61	0.11	mg/Kg	☼	04/06/16 16:06	04/07/16 14:01	1
Beryllium	0.85		0.25	0.053	mg/Kg	☼	04/06/16 16:06	04/08/16 01:07	1
Boron	14		3.1	0.43	mg/Kg	☼	04/06/16 16:06	04/07/16 14:01	1
Cadmium	0.041	J	0.12	0.036	mg/Kg	☼	04/06/16 16:06	04/07/16 14:01	1
Calcium	6700	B	12	4.0	mg/Kg	☼	04/06/16 16:06	04/07/16 14:01	1
Chromium	23	B	0.61	0.11	mg/Kg	☼	04/06/16 16:06	04/07/16 14:01	1
Cobalt	16		0.31	0.069	mg/Kg	☼	04/06/16 16:06	04/07/16 14:01	1
Copper	25		0.61	0.13	mg/Kg	☼	04/06/16 16:06	04/07/16 14:01	1
Iron	23000		12	4.7	mg/Kg	☼	04/06/16 16:06	04/07/16 14:01	1
Lead	20		0.31	0.15	mg/Kg	☼	04/06/16 16:06	04/07/16 14:01	1
Magnesium	6000	B	6.1	2.5	mg/Kg	☼	04/06/16 16:06	04/07/16 14:01	1
Manganese	260	B	0.61	0.12	mg/Kg	☼	04/06/16 16:06	04/08/16 01:07	1
Nickel	37		0.61	0.17	mg/Kg	☼	04/06/16 16:06	04/07/16 14:01	1
Potassium	2200		31	5.0	mg/Kg	☼	04/06/16 16:06	04/08/16 01:07	1
Selenium	0.64		0.61	0.30	mg/Kg	☼	04/06/16 16:06	04/07/16 14:01	1
Silver	<0.31		0.31	0.072	mg/Kg	☼	04/06/16 16:06	04/07/16 14:01	1
Sodium	220		61	8.1	mg/Kg	☼	04/06/16 16:06	04/08/16 01:07	1
Thallium	<0.61		0.61	0.30	mg/Kg	☼	04/06/16 16:06	04/07/16 14:01	1
Vanadium	28		0.31	0.090	mg/Kg	☼	04/06/16 16:06	04/07/16 14:01	1
Zinc	74		1.2	0.39	mg/Kg	☼	04/06/16 16:06	04/07/16 14:01	1

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		04/07/16 14:27	04/08/16 13:51	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/07/16 14:27	04/08/16 13:51	1
Boron	0.17	J	0.50	0.050	mg/L		04/07/16 14:27	04/08/16 13:51	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B02 (6-12)

Lab Sample ID: 500-109738-6

Date Collected: 04/05/16 12:05

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 81.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0021	J	0.0050	0.0020	mg/L		04/07/16 14:27	04/08/16 13:51	1
Chromium	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:51	1
Cobalt	0.033		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:51	1
Iron	<0.40		0.40	0.20	mg/L		04/07/16 14:27	04/08/16 13:51	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/07/16 14:27	04/08/16 13:51	1
Manganese	6.5		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:51	1
Nickel	0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:51	1
Selenium	<0.050		0.050	0.020	mg/L		04/07/16 14:27	04/08/16 13:51	1
Silver	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:51	1
Zinc	0.25	J B	0.50	0.020	mg/L		04/07/16 14:27	04/08/16 13:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.21	J	0.50	0.050	mg/L		04/07/16 14:28	04/08/16 19:06	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/07/16 14:28	04/08/16 19:06	1
Boron	0.23		0.10	0.050	mg/L		04/07/16 14:28	04/08/16 19:06	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/07/16 14:28	04/08/16 19:06	1
Chromium	0.063		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:06	1
Cobalt	0.020	J	0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:06	1
Iron	59		0.40	0.20	mg/L		04/07/16 14:28	04/08/16 19:06	1
Lead	0.028		0.0075	0.0075	mg/L		04/07/16 14:28	04/08/16 19:06	1
Manganese	0.48		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:06	1
Nickel	0.067		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:06	1
Selenium	<0.050		0.050	0.020	mg/L		04/07/16 14:28	04/08/16 19:06	1
Silver	<0.025		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:06	1
Zinc	0.49	J B	0.50	0.020	mg/L		04/07/16 14:28	04/08/16 19:06	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		04/07/16 14:27	04/08/16 16:43	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/07/16 14:27	04/08/16 16:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/07/16 14:28	04/08/16 17:05	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/07/16 14:28	04/08/16 17:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/07/16 13:30	04/08/16 09:45	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		04/07/16 13:30	04/08/16 10:20	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.049		0.019	0.0099	mg/Kg	☼	04/06/16 12:15	04/07/16 10:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B02 (6-12)

Lab Sample ID: 500-109738-6

Date Collected: 04/05/16 12:05

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 81.0

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.67		0.200	0.200	SU			04/08/16 11:28	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B02 (12-18)

Lab Sample ID: 500-109738-7

Date Collected: 04/05/16 12:10

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0034	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Benzene	<0.0044		0.0044	0.00097	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Bromodichloromethane	<0.0044		0.0044	0.00073	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Bromoform	<0.0044		0.0044	0.00089	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Bromomethane	<0.0044	*	0.0044	0.0016	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
2-Butanone (MEK)	<0.0044		0.0044	0.0016	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Carbon disulfide	<0.0044		0.0044	0.0016	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Carbon tetrachloride	<0.0044		0.0044	0.00093	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Chlorobenzene	<0.0044		0.0044	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Chloroethane	<0.0044		0.0044	0.0018	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Chloroform	<0.0044		0.0044	0.00085	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Chloromethane	<0.0044		0.0044	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
cis-1,2-Dichloroethene	<0.0044		0.0044	0.00089	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
cis-1,3-Dichloropropene	<0.0044		0.0044	0.00099	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Dibromochloromethane	<0.0044		0.0044	0.00050	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
1,1-Dichloroethane	<0.0044		0.0044	0.00090	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
1,2-Dichloroethane	<0.0044		0.0044	0.00065	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
1,1-Dichloroethene	<0.0044		0.0044	0.0016	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
1,2-Dichloropropane	<0.0044		0.0044	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
1,3-Dichloropropane, Total	<0.0044		0.0044	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Ethylbenzene	<0.0044		0.0044	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
2-Hexanone	<0.0044		0.0044	0.0013	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Methylene Chloride	<0.0044		0.0044	0.0033	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.00090	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Methyl tert-butyl ether	<0.0044		0.0044	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Styrene	<0.0044		0.0044	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
1,1,2,2-Tetrachloroethane	<0.0044		0.0044	0.00069	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Tetrachloroethene	<0.0044		0.0044	0.00091	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Toluene	<0.0044		0.0044	0.0015	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
trans-1,2-Dichloroethene	<0.0044		0.0044	0.0011	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
trans-1,3-Dichloropropene	<0.0044		0.0044	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
1,1,1-Trichloroethane	<0.0044		0.0044	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
1,1,2-Trichloroethane	<0.0044		0.0044	0.00084	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Trichloroethene	<0.0044		0.0044	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Vinyl acetate	<0.0044		0.0044	0.0012	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Vinyl chloride	<0.0044		0.0044	0.0010	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1
Xylenes, Total	<0.0087		0.0087	0.0016	mg/Kg	☼	04/06/16 08:50	04/08/16 15:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 120	04/06/16 08:50	04/08/16 15:21	1
Dibromofluoromethane	115		75 - 120	04/06/16 08:50	04/08/16 15:21	1
1,2-Dichloroethane-d4 (Surr)	121		69 - 134	04/06/16 08:50	04/08/16 15:21	1
Toluene-d8 (Surr)	114		75 - 123	04/06/16 08:50	04/08/16 15:21	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	☼	04/06/16 16:59	04/08/16 14:34	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B02 (12-18)

Lab Sample ID: 500-109738-7

Date Collected: 04/05/16 12:10

Matrix: Solid

Date Received: 04/05/16 17:45

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	☼	04/06/16 16:59	04/08/16 14:34	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Hexachlorobenzene	<0.079		0.079	0.0090	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Phenanthrene	0.0091	J	0.039	0.0054	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Fluoranthene	0.0082	J	0.039	0.0072	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Pyrene	<0.039		0.039	0.0077	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Benzo[a]anthracene	<0.039		0.039	0.0052	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B02 (12-18)

Lab Sample ID: 500-109738-7

Date Collected: 04/05/16 12:10

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Benzo[b]fluoranthene	0.011	J	0.039	0.0084	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Benzo[a]pyrene	<0.039		0.039	0.0075	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	04/06/16 16:59	04/08/16 14:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	67		40 - 130	04/06/16 16:59	04/08/16 14:34	1
Phenol-d5	75		36 - 123	04/06/16 16:59	04/08/16 14:34	1
Nitrobenzene-d5	65		33 - 124	04/06/16 16:59	04/08/16 14:34	1
2-Fluorobiphenyl	72		42 - 115	04/06/16 16:59	04/08/16 14:34	1
2,4,6-Tribromophenol	61		25 - 130	04/06/16 16:59	04/08/16 14:34	1
Terphenyl-d14	84		25 - 150	04/06/16 16:59	04/08/16 14:34	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	☼	04/06/16 16:06	04/07/16 14:06	1
Arsenic	6.4		0.57	0.26	mg/Kg	☼	04/06/16 16:06	04/07/16 14:06	1
Barium	55		0.57	0.10	mg/Kg	☼	04/06/16 16:06	04/07/16 14:06	1
Beryllium	0.68		0.23	0.049	mg/Kg	☼	04/06/16 16:06	04/08/16 01:11	1
Boron	16		2.9	0.40	mg/Kg	☼	04/06/16 16:06	04/07/16 14:06	1
Cadmium	<0.11		0.11	0.033	mg/Kg	☼	04/06/16 16:06	04/07/16 14:06	1
Calcium	90000	B	110	37	mg/Kg	☼	04/06/16 16:06	04/07/16 15:23	10
Chromium	19	B	0.57	0.098	mg/Kg	☼	04/06/16 16:06	04/07/16 14:06	1
Cobalt	17		0.29	0.064	mg/Kg	☼	04/06/16 16:06	04/07/16 14:06	1
Copper	21		0.57	0.12	mg/Kg	☼	04/06/16 16:06	04/07/16 14:06	1
Iron	18000		11	4.4	mg/Kg	☼	04/06/16 16:06	04/07/16 14:06	1
Lead	14		0.29	0.14	mg/Kg	☼	04/06/16 16:06	04/07/16 14:06	1
Magnesium	23000	B	5.7	2.3	mg/Kg	☼	04/06/16 16:06	04/07/16 14:06	1
Manganese	360	B	0.57	0.11	mg/Kg	☼	04/06/16 16:06	04/08/16 01:11	1
Nickel	36		0.57	0.15	mg/Kg	☼	04/06/16 16:06	04/07/16 14:06	1
Potassium	2700		29	4.7	mg/Kg	☼	04/06/16 16:06	04/08/16 01:11	1
Selenium	0.50	J	0.57	0.28	mg/Kg	☼	04/06/16 16:06	04/07/16 14:06	1
Silver	<0.29		0.29	0.067	mg/Kg	☼	04/06/16 16:06	04/07/16 14:06	1
Sodium	170		57	7.5	mg/Kg	☼	04/06/16 16:06	04/08/16 01:11	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	04/06/16 16:06	04/07/16 14:06	1
Vanadium	23		0.29	0.083	mg/Kg	☼	04/06/16 16:06	04/07/16 14:06	1
Zinc	59		1.1	0.36	mg/Kg	☼	04/06/16 16:06	04/07/16 14:06	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		04/07/16 14:27	04/08/16 13:56	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/07/16 14:27	04/08/16 13:56	1
Boron	0.10	J	0.50	0.050	mg/L		04/07/16 14:27	04/08/16 13:56	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B02 (12-18)

Lab Sample ID: 500-109738-7

Date Collected: 04/05/16 12:10

Matrix: Solid

Date Received: 04/05/16 17:45

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		04/07/16 14:27	04/08/16 13:56	1
Chromium	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:56	1
Cobalt	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:56	1
Iron	<0.40		0.40	0.20	mg/L		04/07/16 14:27	04/08/16 13:56	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/07/16 14:27	04/08/16 13:56	1
Manganese	0.79		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:56	1
Nickel	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:56	1
Selenium	<0.050		0.050	0.020	mg/L		04/07/16 14:27	04/08/16 13:56	1
Silver	<0.025		0.025	0.010	mg/L		04/07/16 14:27	04/08/16 13:56	1
Zinc	1.0	B	0.50	0.020	mg/L		04/07/16 14:27	04/08/16 13:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.22	J	0.50	0.050	mg/L		04/07/16 14:28	04/08/16 19:13	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/07/16 14:28	04/08/16 19:13	1
Boron	0.19		0.10	0.050	mg/L		04/07/16 14:28	04/08/16 19:13	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/07/16 14:28	04/08/16 19:13	1
Chromium	0.086		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:13	1
Cobalt	0.021	J	0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:13	1
Iron	74		0.40	0.20	mg/L		04/07/16 14:28	04/08/16 19:13	1
Lead	0.031		0.0075	0.0075	mg/L		04/07/16 14:28	04/08/16 19:13	1
Manganese	0.38		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:13	1
Nickel	0.084		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:13	1
Selenium	<0.050		0.050	0.020	mg/L		04/07/16 14:28	04/08/16 19:13	1
Silver	<0.025		0.025	0.010	mg/L		04/07/16 14:28	04/08/16 19:13	1
Zinc	1.6	B	0.50	0.020	mg/L		04/07/16 14:28	04/08/16 19:13	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		04/07/16 14:27	04/08/16 16:44	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/07/16 14:27	04/08/16 16:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/07/16 14:28	04/08/16 17:06	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/07/16 14:28	04/08/16 17:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/07/16 13:30	04/08/16 09:47	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		04/07/16 13:30	04/08/16 10:22	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.018	0.0092	mg/Kg	☼	04/06/16 12:15	04/07/16 11:02	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

Client Sample ID: 2028V-25-B02 (12-18)

Lab Sample ID: 500-109738-7

Date Collected: 04/05/16 12:10

Matrix: Solid

Date Received: 04/05/16 17:45

Percent Solids: 84.1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.05		0.200	0.200	SU			04/08/16 12:27	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

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.

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
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.
F2	MS/MSD RPD exceeds control 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.

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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109738-1

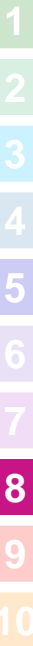
Laboratory: TestAmerica Chicago

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	04-30-17

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



500-109738 COC

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

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

Chain of Custody Record

Lab Job #: 500-109738
Chain of Custody Number: E912-01
Page _____ of _____
Temperature °C of Cooler: 4.2

Client		Client Project #		Preservative		Parameter		Matrix		Comments				
EE		1009341-0012-02								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				
W012 (W14)		50012022												
Project Location/State		Lab Project #		Date		Time		pH/% Solids		Comments				
Cook County, IL		50012022												
Sampler		Lab Pkg		Date		Time		pH/% Solids		Comments				
S. Cooper		D-Weight												
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	Vol	Sub	Total TAC	Metals	TCP/STP	TAC Metals	pH/% Solids	Comments
1		2028V-25-B01 (06)	4-5-16	1050	2	S	X	X	X	X	X	X	X	
2		2028V-25-B01 (6-12)	4-5-16	1055	2	S	X	X	X	X	X	X	X	
3		2028V-25-B01 (12-18)	4-5-16	1100	2	S	X	X	X	X	X	X	X	
4		2028V-25-B06 (0-3)	4-5-16	1120	2	S	X	X	X	X	X	X	X	
5		2028V-25-B02 (0-6)	4-5-16	1200	2	S	X	X	X	X	X	X	X	
6		2028V-25-B02 (6-12)	4-5-16	1205	2	S	X	X	X	X	X	X	X	
7		2028V-25-B02 (12-18)	4-5-16	1210	2	S	X	X	X	X	X	X	X	

Turnaround Time Required (Business Days)

1 Day 2 Days 5 Days 7 Days 10 Days 15 Days 6 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>EV</u> Date: <u>4/5/16</u> Time: <u>1500</u>	Received By: <u>[Signature]</u> Company: <u>JA</u> Date: <u>4/5/16</u> Time: <u>1500</u>
Relinquished By: <u>[Signature]</u> Company: <u>JA</u> Date: <u>4/5/16</u> Time: _____	Received By: <u>[Signature]</u> Company: <u>JA</u> Date: <u>4/5/16</u> Time: <u>1627</u>
Relinquished By: <u>[Signature]</u> Company: <u>JA</u> Date: <u>4/5/16</u> Time: <u>1745</u>	Received By: <u>[Signature]</u> Company: <u>JA-CRT</u> Date: <u>4/6/16</u> Time: <u>0715</u>

Lab Courier: TA
Shipped: _____

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: 500-109738-1

Login Number: 109738

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	4.2
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: 500-109836-2
Client Project/Site: IDOT - Des Plaines - WO 012

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

Attn: Mr. Dean Tiebout



Authorized for release by:
4/15/2016 8:10:26 AM

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

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results through
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www.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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Job ID: 500-109836-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-109836-2

Comments

No additional comments.

Receipt

The samples were received on 4/6/2016 6:07 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.4° C and 2.9° C.

GC/MS VOA

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

GC/MS Semi VOA

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 500-330259 and analytical batch 500-330608 had 1 analyte outside control limits: 3,3'-Dichlorobenzidine ; 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 500-330193 and analytical batch 500-330432 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) 6010B: The following samples was diluted to bring the concentration of target and non-target analytes within the calibration range: 2628V-25-B03 (12-18) (500-109836-18). Elevated reporting limits (RLs) are provided.

Method(s) 6020A: The internal standard (Tb) was used to report the element Thallium (TI) in batch 500-330846

Method(s) 6020A: The internal standard (Tb) was used to report the element Thallium (TI) in batch 500-330846

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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B05 (0-6)

Lab Sample ID: 500-109836-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Phenanthrene	0.0099	J	0.039	0.0054	mg/Kg	1		☼	8270D	Total/NA
Arsenic	6.2		0.59	0.27	mg/Kg	1		☼	6010B	Total/NA
Barium	70		0.59	0.11	mg/Kg	1		☼	6010B	Total/NA
Beryllium	0.71		0.24	0.051	mg/Kg	1		☼	6010B	Total/NA
Boron	10		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	22000	B	12	3.8	mg/Kg	1		☼	6010B	Total/NA
Chromium	17	B	0.59	0.10	mg/Kg	1		☼	6010B	Total/NA
Cobalt	11		0.30	0.067	mg/Kg	1		☼	6010B	Total/NA
Copper	20		0.59	0.13	mg/Kg	1		☼	6010B	Total/NA
Iron	17000	B	12	4.6	mg/Kg	1		☼	6010B	Total/NA
Lead	44		0.30	0.15	mg/Kg	1		☼	6010B	Total/NA
Magnesium	10000	B	5.9	2.4	mg/Kg	1		☼	6010B	Total/NA
Manganese	250		0.59	0.12	mg/Kg	1		☼	6010B	Total/NA
Nickel	28		0.59	0.16	mg/Kg	1		☼	6010B	Total/NA
Potassium	1900		30	4.8	mg/Kg	1		☼	6010B	Total/NA
Selenium	0.57	J	0.59	0.29	mg/Kg	1		☼	6010B	Total/NA
Sodium	2700		59	7.8	mg/Kg	1		☼	6010B	Total/NA
Vanadium	26		0.30	0.086	mg/Kg	1		☼	6010B	Total/NA
Zinc	72		1.2	0.37	mg/Kg	1		☼	6010B	Total/NA
Barium	0.48	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.20	J B	0.50	0.050	mg/L	1			6010B	TCLP
Cobalt	0.013	J	0.025	0.010	mg/L	1			6010B	TCLP
Manganese	4.2		0.025	0.010	mg/L	1			6010B	TCLP
Barium	0.84		0.50	0.050	mg/L	1			6010B	SPLP East
Beryllium	0.0087		0.0040	0.0040	mg/L	1			6010B	SPLP East
Boron	0.35		0.10	0.050	mg/L	1			6010B	SPLP East
Chromium	0.20		0.025	0.010	mg/L	1			6010B	SPLP East
Cobalt	0.072		0.025	0.010	mg/L	1			6010B	SPLP East
Iron	200		0.40	0.20	mg/L	1			6010B	SPLP East
Lead	0.11		0.0075	0.0075	mg/L	1			6010B	SPLP East
Manganese	1.7		0.025	0.010	mg/L	1			6010B	SPLP East
Nickel	0.21		0.025	0.010	mg/L	1			6010B	SPLP East
Zinc	0.46	J	0.50	0.020	mg/L	1			6010B	SPLP East
Thallium	0.0032		0.0020	0.0020	mg/L	1			6020A	SPLP East
Mercury	0.014	J	0.020	0.010	mg/Kg	1		☼	7471B	Total/NA
pH	8.23		0.200	0.200	SU	1			9045D	Total/NA

Client Sample ID: 2028V-25-B05 (6-12)

Lab Sample ID: 500-109836-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	0.048		0.022	0.0042	mg/Kg	1		☼	8260B	Total/NA
2-Butanone (MEK)	0.0097		0.0054	0.0019	mg/Kg	1		☼	8260B	Total/NA
Phenanthrene	0.016	J	0.044	0.0061	mg/Kg	1		☼	8270D	Total/NA
Fluoranthene	0.020	J	0.044	0.0081	mg/Kg	1		☼	8270D	Total/NA
Pyrene	0.018	J	0.044	0.0087	mg/Kg	1		☼	8270D	Total/NA
Benzo[a]anthracene	0.0080	J	0.044	0.0059	mg/Kg	1		☼	8270D	Total/NA
Benzo[b]fluoranthene	0.010	J	0.044	0.0095	mg/Kg	1		☼	8270D	Total/NA
Antimony	22		1.3	0.27	mg/Kg	1		☼	6010B	Total/NA
Arsenic	7.8		0.64	0.30	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B05 (6-12) (Continued)

Lab Sample ID: 500-109836-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	74		0.64	0.12	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.78		0.26	0.056	mg/Kg	1	☼	6010B	Total/NA
Boron	73		3.2	0.45	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.25		0.13	0.037	mg/Kg	1	☼	6010B	Total/NA
Calcium	6000	B	13	4.1	mg/Kg	1	☼	6010B	Total/NA
Chromium	20	B	0.64	0.11	mg/Kg	1	☼	6010B	Total/NA
Cobalt	35		0.32	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	39		0.64	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	22000	B	13	4.9	mg/Kg	1	☼	6010B	Total/NA
Lead	24		0.32	0.16	mg/Kg	1	☼	6010B	Total/NA
Magnesium	4700	B	6.4	2.6	mg/Kg	1	☼	6010B	Total/NA
Manganese	240		0.64	0.13	mg/Kg	1	☼	6010B	Total/NA
Nickel	36		0.64	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	2400		32	5.2	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.92		0.64	0.32	mg/Kg	1	☼	6010B	Total/NA
Sodium	740		64	8.5	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.43	J	0.64	0.32	mg/Kg	1	☼	6010B	Total/NA
Vanadium	27		0.32	0.094	mg/Kg	1	☼	6010B	Total/NA
Zinc	110		1.3	0.41	mg/Kg	1	☼	6010B	Total/NA
Barium	0.59		0.50	0.050	mg/L	1		6010B	TCLP
Boron	1.1	B	0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.063		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	4.6		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.030		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.11	J	0.50	0.020	mg/L	1		6010B	TCLP
Boron	0.11		0.10	0.050	mg/L	1		6010B	SPLP East
Iron	2.1		0.40	0.20	mg/L	1		6010B	SPLP East
Manganese	0.031		0.025	0.010	mg/L	1		6010B	SPLP East
Antimony	0.026		0.0060	0.0060	mg/L	1		6020A	TCLP
Mercury	0.057		0.022	0.011	mg/Kg	1	☼	7471B	Total/NA
pH	8.00		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 2028V-25-B05 (12-18)

Lab Sample ID: 500-109836-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.0068	J	0.041	0.0058	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.010	J	0.041	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0058	J	0.041	0.0056	mg/Kg	1	☼	8270D	Total/NA
Antimony	3.6		1.2	0.25	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.9		0.60	0.28	mg/Kg	1	☼	6010B	Total/NA
Barium	35		0.60	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.50		0.24	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	22		3.0	0.42	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17		0.12	0.035	mg/Kg	1	☼	6010B	Total/NA
Calcium	110000	B	120	39	mg/Kg	10	☼	6010B	Total/NA
Chromium	13	B	0.60	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	14		0.30	0.068	mg/Kg	1	☼	6010B	Total/NA
Copper	24		0.60	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	16000	B	12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	18		0.30	0.15	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B05 (12-18) (Continued)

Lab Sample ID: 500-109836-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	32000	B	6.0	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	450		0.60	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	26		0.60	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2200		30	4.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.79		0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Sodium	300		60	7.9	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.71		0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.30	0.088	mg/Kg	1	☼	6010B	Total/NA
Zinc	73		1.2	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	0.65		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.66	B	0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.060		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	7.0		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.033		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.045	J	0.50	0.020	mg/L	1		6010B	TCLP
Barium	0.23	J	0.50	0.050	mg/L	1		6010B	SPLP East
Boron	0.59		0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.058		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.025		0.025	0.010	mg/L	1		6010B	SPLP East
Iron	49		0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.020		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.51		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.056		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.10	J	0.50	0.020	mg/L	1		6010B	SPLP East
Antimony	0.016		0.0060	0.0060	mg/L	1		6020A	TCLP
Antimony	0.057		0.0060	0.0060	mg/L	1		6020A	SPLP East
Mercury	0.023		0.019	0.0099	mg/Kg	1	☼	7471B	Total/NA
pH	8.02		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 2028V-25-B04 (0-6)

Lab Sample ID: 500-109836-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.019		0.017	0.0032	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.010	J	0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.0099	J	0.040	0.0074	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.010	J	0.040	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0063	J	0.040	0.0054	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.2		0.57	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	54		0.57	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.63		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	12		2.9	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12		0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	77000	B	110	37	mg/Kg	10	☼	6010B	Total/NA
Chromium	16	B	0.57	0.098	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.29	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	21		0.57	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	17000	B	11	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	15		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	23000	B	5.7	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	350		0.57	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B04 (0-6) (Continued)

Lab Sample ID: 500-109836-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	31		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2300		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Sodium	1300		57	7.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.29	0.084	mg/Kg	1	☼	6010B	Total/NA
Zinc	58		1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.47	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.10	J B	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	3.0		0.025	0.010	mg/L	1		6010B	TCLP
Barium	0.45	J	0.50	0.050	mg/L	1		6010B	SPLP East
Beryllium	0.0068		0.0040	0.0040	mg/L	1		6010B	SPLP East
Boron	0.26		0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.14		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.054		0.025	0.010	mg/L	1		6010B	SPLP East
Iron	140		0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.063		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	1.4		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.14		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.29	J	0.50	0.020	mg/L	1		6010B	SPLP East
Mercury	0.038		0.018	0.0097	mg/Kg	1	☼	7471B	Total/NA
pH	8.38		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 2028V-25-B04 (6-12)

Lab Sample ID: 500-109836-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.010	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.0094	J	0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.50	J	1.2	0.25	mg/Kg	1	☼	6010B	Total/NA
Arsenic	9.2		0.60	0.28	mg/Kg	1	☼	6010B	Total/NA
Barium	83		0.60	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.79		0.24	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	16		3.0	0.42	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.097	J	0.12	0.035	mg/Kg	1	☼	6010B	Total/NA
Calcium	23000	B	12	3.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	19	B	0.60	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	17		0.30	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	24		0.60	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	20000	B	12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	20		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	13000	B	6.0	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	380		0.60	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	37		0.60	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2100		30	4.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.61		0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Sodium	760		60	7.9	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.41	J	0.60	0.29	mg/Kg	1	☼	6010B	Total/NA
Vanadium	24		0.30	0.087	mg/Kg	1	☼	6010B	Total/NA
Zinc	70		1.2	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	0.63		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.29	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0027	J	0.0050	0.0020	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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B04 (6-12) (Continued)

Lab Sample ID: 500-109836-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.028		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	8.0		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.021	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.028	J	0.50	0.020	mg/L	1		6010B	TCLP
Barium	0.11	J	0.50	0.050	mg/L	1		6010B	SPLP East
Boron	0.27		0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.019	J	0.025	0.010	mg/L	1		6010B	SPLP East
Iron	14		0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.0097		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.18		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.017	J	0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.038	J	0.50	0.020	mg/L	1		6010B	SPLP East
Antimony	0.0069		0.0060	0.0060	mg/L	1		6020A	SPLP East
Mercury	0.049		0.020	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	7.66		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 2028V-25-B04 (12-18)

Lab Sample ID: 500-109836-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.013	J	0.042	0.0059	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.1		0.61	0.28	mg/Kg	1	☼	6010B	Total/NA
Barium	65		0.61	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.76		0.25	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	14		3.1	0.43	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.080	J	0.12	0.036	mg/Kg	1	☼	6010B	Total/NA
Calcium	19000	B	12	4.0	mg/Kg	1	☼	6010B	Total/NA
Chromium	20	B	0.61	0.11	mg/Kg	1	☼	6010B	Total/NA
Cobalt	13		0.31	0.069	mg/Kg	1	☼	6010B	Total/NA
Copper	19		0.61	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	21000	B	12	4.7	mg/Kg	1	☼	6010B	Total/NA
Lead	15		0.31	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	12000	B	6.1	2.5	mg/Kg	1	☼	6010B	Total/NA
Manganese	240		0.61	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	31		0.61	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	2400		31	5.0	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.63		0.61	0.30	mg/Kg	1	☼	6010B	Total/NA
Sodium	440		61	8.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	25		0.31	0.090	mg/Kg	1	☼	6010B	Total/NA
Zinc	72		1.2	0.39	mg/Kg	1	☼	6010B	Total/NA
Barium	0.44	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.27	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	3.1		0.025	0.010	mg/L	1		6010B	TCLP
Barium	0.19	J	0.50	0.050	mg/L	1		6010B	SPLP East
Boron	0.30		0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.053		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.016	J	0.025	0.010	mg/L	1		6010B	SPLP East
Iron	40		0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.023		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.35		0.025	0.010	mg/L	1		6010B	SPLP East

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B04 (12-18) (Continued)

Lab Sample ID: 500-109836-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	0.045		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.10	J	0.50	0.020	mg/L	1		6010B	SPLP East
Mercury	0.034		0.020	0.011	mg/Kg	1	⊛	7471B	Total/NA
pH	7.97		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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-109836-9	2028V-25-B05 (0-6)	Solid	04/06/16 12:00	04/06/16 18:07
500-109836-10	2028V-25-B05 (6-12)	Solid	04/06/16 12:05	04/06/16 18:07
500-109836-11	2028V-25-B05 (12-18)	Solid	04/06/16 12:10	04/06/16 18:07
500-109836-12	2028V-25-B04 (0-6)	Solid	04/06/16 13:25	04/06/16 18:07
500-109836-13	2028V-25-B04 (6-12)	Solid	04/06/16 13:30	04/06/16 18:07
500-109836-14	2028V-25-B04 (12-18)	Solid	04/06/16 13:35	04/06/16 18:07



Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B05 (0-6)

Lab Sample ID: 500-109836-9

Date Collected: 04/06/16 12:00

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0040	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Benzene	<0.0051		0.0051	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Bromodichloromethane	<0.0051		0.0051	0.00086	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Bromoform	<0.0051		0.0051	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Bromomethane	<0.0051		0.0051	0.0019	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
2-Butanone (MEK)	<0.0051		0.0051	0.0018	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Carbon disulfide	<0.0051		0.0051	0.0019	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Carbon tetrachloride	<0.0051		0.0051	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Chlorobenzene	<0.0051		0.0051	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Chloroethane	<0.0051		0.0051	0.0021	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Chloroform	<0.0051		0.0051	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Chloromethane	<0.0051		0.0051	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
cis-1,2-Dichloroethene	<0.0051		0.0051	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
cis-1,3-Dichloropropene	<0.0051		0.0051	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Dibromochloromethane	<0.0051		0.0051	0.00059	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
1,1-Dichloroethane	<0.0051		0.0051	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
1,2-Dichloroethane	<0.0051		0.0051	0.00076	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
1,1-Dichloroethene	<0.0051		0.0051	0.0019	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
1,2-Dichloropropane	<0.0051		0.0051	0.0013	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
1,3-Dichloropropane, Total	<0.0051		0.0051	0.0014	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Ethylbenzene	<0.0051		0.0051	0.0013	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
2-Hexanone	<0.0051		0.0051	0.0016	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Methylene Chloride	<0.0051		0.0051	0.0039	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
4-Methyl-2-pentanone (MIBK)	<0.0051		0.0051	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Methyl tert-butyl ether	<0.0051		0.0051	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Styrene	<0.0051		0.0051	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
1,1,2,2-Tetrachloroethane	<0.0051		0.0051	0.00081	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Tetrachloroethene	<0.0051		0.0051	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Toluene	<0.0051		0.0051	0.0018	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
trans-1,2-Dichloroethene	<0.0051		0.0051	0.0013	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
trans-1,3-Dichloropropene	<0.0051		0.0051	0.0014	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
1,1,1-Trichloroethane	<0.0051		0.0051	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
1,1,2-Trichloroethane	<0.0051		0.0051	0.00099	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Trichloroethene	<0.0051		0.0051	0.0014	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Vinyl acetate	<0.0051		0.0051	0.0014	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Vinyl chloride	<0.0051		0.0051	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1
Xylenes, Total	<0.010		0.010	0.0019	mg/Kg	☼	04/07/16 15:34	04/08/16 17:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 120	04/07/16 15:34	04/08/16 17:36	1
Dibromofluoromethane	112		75 - 120	04/07/16 15:34	04/08/16 17:36	1
1,2-Dichloroethane-d4 (Surr)	110		69 - 134	04/07/16 15:34	04/08/16 17:36	1
Toluene-d8 (Surr)	113		75 - 123	04/07/16 15:34	04/08/16 17:36	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	☼	04/08/16 07:31	04/11/16 21:40	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B05 (0-6)

Lab Sample ID: 500-109836-9

Date Collected: 04/06/16 12:00

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 80.7

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	☼	04/08/16 07:31	04/11/16 21:40	1
2-Methylphenol	<0.20		0.20	0.062	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.048	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
2-Chlorophenol	<0.20		0.20	0.066	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
2,4-Dichlorophenol	<0.39		0.39	0.092	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
2,6-Dinitrotoluene	<0.20		0.20	0.076	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
2,4-Dinitrophenol	<0.78		0.78	0.69	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.045	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Phenanthrene	0.0099	J	0.039	0.0054	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Fluoranthene	<0.039		0.039	0.0072	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Pyrene	<0.039		0.039	0.0077	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Benzo[a]anthracene	<0.039		0.039	0.0052	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B05 (0-6)

Lab Sample ID: 500-109836-9

Date Collected: 04/06/16 12:00

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
3,3'-Dichlorobenzidine	<0.20	*	0.20	0.054	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Di-n-octyl phthalate	<0.20		0.20	0.063	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Benzo[a]pyrene	<0.039		0.039	0.0075	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	04/08/16 07:31	04/11/16 21:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	71		40 - 130	04/08/16 07:31	04/11/16 21:40	1
Phenol-d5	79		36 - 123	04/08/16 07:31	04/11/16 21:40	1
Nitrobenzene-d5	81		33 - 124	04/08/16 07:31	04/11/16 21:40	1
2-Fluorobiphenyl	93		42 - 115	04/08/16 07:31	04/11/16 21:40	1
2,4,6-Tribromophenol	92		25 - 130	04/08/16 07:31	04/11/16 21:40	1
Terphenyl-d14	90		25 - 150	04/08/16 07:31	04/11/16 21:40	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	☼	04/07/16 16:03	04/08/16 17:32	1
Arsenic	6.2		0.59	0.27	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Barium	70		0.59	0.11	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Beryllium	0.71		0.24	0.051	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Boron	10		3.0	0.41	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Cadmium	0.11	J	0.12	0.034	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Calcium	22000	B	12	3.8	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Chromium	17	B	0.59	0.10	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Cobalt	11		0.30	0.067	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Copper	20		0.59	0.13	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Iron	17000	B	12	4.6	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Lead	44		0.30	0.15	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Magnesium	10000	B	5.9	2.4	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Manganese	250		0.59	0.12	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Nickel	28		0.59	0.16	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Potassium	1900		30	4.8	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Selenium	0.57	J	0.59	0.29	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Silver	<0.30		0.30	0.069	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Sodium	2700		59	7.8	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Vanadium	26		0.30	0.086	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	1
Zinc	72		1.2	0.37	mg/Kg	☼	04/07/16 16:03	04/08/16 17:32	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		04/11/16 08:00	04/11/16 20:31	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/16 08:00	04/11/16 20:31	1
Boron	0.20	J B	0.50	0.050	mg/L		04/11/16 08:00	04/11/16 20:31	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B05 (0-6)

Lab Sample ID: 500-109836-9

Date Collected: 04/06/16 12:00

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 80.7

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		04/11/16 08:00	04/11/16 20:31	1
Chromium	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:31	1
Cobalt	0.013	J	0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:31	1
Iron	<0.40		0.40	0.20	mg/L		04/11/16 08:00	04/11/16 20:31	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/11/16 08:00	04/11/16 20:31	1
Manganese	4.2		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:31	1
Nickel	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:31	1
Selenium	<0.050		0.050	0.020	mg/L		04/11/16 08:00	04/11/16 20:31	1
Silver	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:31	1
Zinc	<0.50		0.50	0.020	mg/L		04/11/16 08:00	04/11/16 20:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.84		0.50	0.050	mg/L		04/11/16 08:02	04/11/16 17:35	1
Beryllium	0.0087		0.0040	0.0040	mg/L		04/11/16 08:02	04/11/16 17:35	1
Boron	0.35		0.10	0.050	mg/L		04/11/16 08:02	04/11/16 17:35	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/11/16 08:02	04/11/16 17:35	1
Chromium	0.20		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:35	1
Cobalt	0.072		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:35	1
Iron	200		0.40	0.20	mg/L		04/11/16 08:02	04/11/16 17:35	1
Lead	0.11		0.0075	0.0075	mg/L		04/11/16 08:02	04/11/16 17:35	1
Manganese	1.7		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:35	1
Nickel	0.21		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:35	1
Selenium	<0.050		0.050	0.020	mg/L		04/11/16 08:02	04/11/16 17:35	1
Silver	<0.025		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:35	1
Zinc	0.46	J	0.50	0.020	mg/L		04/11/16 08:02	04/11/16 17:35	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		04/11/16 08:00	04/12/16 18:52	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/16 08:00	04/12/16 18:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/11/16 08:02	04/12/16 20:42	1
Thallium	0.0032		0.0020	0.0020	mg/L		04/11/16 08:02	04/12/16 20:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/11/16 12:00	04/12/16 10:02	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		04/11/16 12:00	04/12/16 10:57	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.020	0.010	mg/Kg	☼	04/07/16 16:15	04/08/16 11:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B05 (0-6)

Lab Sample ID: 500-109836-9

Date Collected: 04/06/16 12:00

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 80.7

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.23		0.200	0.200	SU			04/12/16 15:17	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B05 (6-12)

Lab Sample ID: 500-109836-10

Date Collected: 04/06/16 12:05

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 73.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.048		0.022	0.0042	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Benzene	<0.0054		0.0054	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Bromodichloromethane	<0.0054		0.0054	0.00091	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Bromoform	<0.0054		0.0054	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Bromomethane	<0.0054		0.0054	0.0020	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
2-Butanone (MEK)	0.0097		0.0054	0.0019	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Carbon disulfide	<0.0054		0.0054	0.0020	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Carbon tetrachloride	<0.0054		0.0054	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Chlorobenzene	<0.0054		0.0054	0.0013	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Chloroethane	<0.0054		0.0054	0.0023	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Chloroform	<0.0054		0.0054	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Chloromethane	<0.0054		0.0054	0.0013	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
cis-1,2-Dichloroethene	<0.0054		0.0054	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
cis-1,3-Dichloropropene	<0.0054		0.0054	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Dibromochloromethane	<0.0054		0.0054	0.00062	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
1,1-Dichloroethane	<0.0054		0.0054	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
1,2-Dichloroethane	<0.0054		0.0054	0.00080	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
1,1-Dichloroethene	<0.0054		0.0054	0.0020	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
1,2-Dichloropropane	<0.0054		0.0054	0.0014	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
1,3-Dichloropropane, Total	<0.0054		0.0054	0.0015	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Ethylbenzene	<0.0054		0.0054	0.0013	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
2-Hexanone	<0.0054		0.0054	0.0017	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Methylene Chloride	<0.0054		0.0054	0.0041	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
4-Methyl-2-pentanone (MIBK)	<0.0054		0.0054	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Methyl tert-butyl ether	<0.0054		0.0054	0.0013	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Styrene	<0.0054		0.0054	0.0013	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
1,1,2,2-Tetrachloroethane	<0.0054		0.0054	0.00086	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Tetrachloroethene	<0.0054		0.0054	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Toluene	<0.0054		0.0054	0.0019	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
trans-1,2-Dichloroethene	<0.0054		0.0054	0.0013	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
trans-1,3-Dichloropropene	<0.0054		0.0054	0.0015	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
1,1,1-Trichloroethane	<0.0054		0.0054	0.0013	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
1,1,2-Trichloroethane	<0.0054		0.0054	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Trichloroethene	<0.0054		0.0054	0.0015	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Vinyl acetate	<0.0054		0.0054	0.0014	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Vinyl chloride	<0.0054		0.0054	0.0013	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1
Xylenes, Total	<0.011		0.011	0.0020	mg/Kg	☼	04/07/16 15:34	04/08/16 18:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 120	04/07/16 15:34	04/08/16 18:02	1
Dibromofluoromethane	112		75 - 120	04/07/16 15:34	04/08/16 18:02	1
1,2-Dichloroethane-d4 (Surr)	104		69 - 134	04/07/16 15:34	04/08/16 18:02	1
Toluene-d8 (Surr)	117		75 - 123	04/07/16 15:34	04/08/16 18:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.22		0.22	0.098	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Bis(2-chloroethyl)ether	<0.22		0.22	0.066	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
1,3-Dichlorobenzene	<0.22		0.22	0.049	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
1,4-Dichlorobenzene	<0.22		0.22	0.056	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B05 (6-12)

Lab Sample ID: 500-109836-10

Date Collected: 04/06/16 12:05

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 73.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.22		0.22	0.053	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
2-Methylphenol	<0.22		0.22	0.070	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
2,2'-oxybis[1-chloropropane]	<0.22		0.22	0.051	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
N-Nitrosodi-n-propylamine	<0.089		0.089	0.054	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Hexachloroethane	<0.22		0.22	0.067	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
2-Chlorophenol	<0.22		0.22	0.075	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Nitrobenzene	<0.044		0.044	0.011	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Bis(2-chloroethoxy)methane	<0.22		0.22	0.045	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
1,2,4-Trichlorobenzene	<0.22		0.22	0.047	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Isophorone	<0.22		0.22	0.049	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
2,4-Dimethylphenol	<0.44		0.44	0.17	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Hexachlorobutadiene	<0.22		0.22	0.069	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Naphthalene	<0.044		0.044	0.0068	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
2,4-Dichlorophenol	<0.44		0.44	0.10	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
4-Chloroaniline	<0.89		0.89	0.21	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
2,4,6-Trichlorophenol	<0.44		0.44	0.15	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
2,4,5-Trichlorophenol	<0.44		0.44	0.10	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Hexachlorocyclopentadiene	<0.89		0.89	0.25	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
2-Methylnaphthalene	<0.044		0.044	0.0081	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
2-Nitroaniline	<0.22		0.22	0.059	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
2-Chloronaphthalene	<0.22		0.22	0.049	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
4-Chloro-3-methylphenol	<0.44		0.44	0.15	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
2,6-Dinitrotoluene	<0.22		0.22	0.086	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
2-Nitrophenol	<0.44		0.44	0.10	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
3-Nitroaniline	<0.44		0.44	0.14	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Dimethyl phthalate	<0.22		0.22	0.057	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
2,4-Dinitrophenol	<0.89		0.89	0.77	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Acenaphthylene	<0.044		0.044	0.0058	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
2,4-Dinitrotoluene	<0.22		0.22	0.070	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Acenaphthene	<0.044		0.044	0.0079	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Dibenzofuran	<0.22		0.22	0.051	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
4-Nitrophenol	<0.89		0.89	0.42	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Fluorene	<0.044		0.044	0.0062	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
4-Nitroaniline	<0.44		0.44	0.18	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
4-Bromophenyl phenyl ether	<0.22		0.22	0.058	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Hexachlorobenzene	<0.089		0.089	0.010	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Diethyl phthalate	<0.22		0.22	0.074	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
4-Chlorophenyl phenyl ether	<0.22		0.22	0.051	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Pentachlorophenol	<0.89		0.89	0.70	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
N-Nitrosodiphenylamine	<0.22		0.22	0.052	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
4,6-Dinitro-2-methylphenol	<0.89		0.89	0.35	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Phenanthrene	0.016	J	0.044	0.0061	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Anthracene	<0.044		0.044	0.0073	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Carbazole	<0.22		0.22	0.11	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Di-n-butyl phthalate	<0.22		0.22	0.067	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Fluoranthene	0.020	J	0.044	0.0081	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Pyrene	0.018	J	0.044	0.0087	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Butyl benzyl phthalate	<0.22		0.22	0.084	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Benzo[a]anthracene	0.0080	J	0.044	0.0059	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B05 (6-12)

Lab Sample ID: 500-109836-10

Date Collected: 04/06/16 12:05

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 73.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.044		0.044	0.012	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
3,3'-Dichlorobenzidine	<0.22	*	0.22	0.061	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Bis(2-ethylhexyl) phthalate	<0.22		0.22	0.080	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Di-n-octyl phthalate	<0.22		0.22	0.072	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Benzo[b]fluoranthene	0.010	J	0.044	0.0095	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Benzo[k]fluoranthene	<0.044		0.044	0.013	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Benzo[a]pyrene	<0.044		0.044	0.0085	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Indeno[1,2,3-cd]pyrene	<0.044		0.044	0.011	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Dibenz(a,h)anthracene	<0.044		0.044	0.0085	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
Benzo[g,h,i]perylene	<0.044		0.044	0.014	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1
3 & 4 Methylphenol	<0.22		0.22	0.073	mg/Kg	☼	04/08/16 07:31	04/11/16 22:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	70		40 - 130	04/08/16 07:31	04/11/16 22:09	1
Phenol-d5	74		36 - 123	04/08/16 07:31	04/11/16 22:09	1
Nitrobenzene-d5	79		33 - 124	04/08/16 07:31	04/11/16 22:09	1
2-Fluorobiphenyl	89		42 - 115	04/08/16 07:31	04/11/16 22:09	1
2,4,6-Tribromophenol	104		25 - 130	04/08/16 07:31	04/11/16 22:09	1
Terphenyl-d14	93		25 - 150	04/08/16 07:31	04/11/16 22:09	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	22		1.3	0.27	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Arsenic	7.8		0.64	0.30	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Barium	74		0.64	0.12	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Beryllium	0.78		0.26	0.056	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Boron	73		3.2	0.45	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Cadmium	0.25		0.13	0.037	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Calcium	6000	B	13	4.1	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Chromium	20	B	0.64	0.11	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Cobalt	35		0.32	0.073	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Copper	39		0.64	0.14	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Iron	22000	B	13	4.9	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Lead	24		0.32	0.16	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Magnesium	4700	B	6.4	2.6	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Manganese	240		0.64	0.13	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Nickel	36		0.64	0.17	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Potassium	2400		32	5.2	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Selenium	0.92		0.64	0.32	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Silver	<0.32		0.32	0.075	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Sodium	740		64	8.5	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Thallium	0.43	J	0.64	0.32	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Vanadium	27		0.32	0.094	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1
Zinc	110		1.3	0.41	mg/Kg	☼	04/07/16 16:03	04/08/16 17:37	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.59		0.50	0.050	mg/L		04/11/16 08:00	04/11/16 20:38	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/16 08:00	04/11/16 20:38	1
Boron	1.1	B	0.50	0.050	mg/L		04/11/16 08:00	04/11/16 20:38	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B05 (6-12)

Lab Sample ID: 500-109836-10

Date Collected: 04/06/16 12:05

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 73.6

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		04/11/16 08:00	04/11/16 20:38	1
Chromium	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:38	1
Cobalt	0.063		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:38	1
Iron	<0.40		0.40	0.20	mg/L		04/11/16 08:00	04/11/16 20:38	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/11/16 08:00	04/11/16 20:38	1
Manganese	4.6		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:38	1
Nickel	0.030		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:38	1
Selenium	<0.050		0.050	0.020	mg/L		04/11/16 08:00	04/11/16 20:38	1
Silver	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:38	1
Zinc	0.11	J	0.50	0.020	mg/L		04/11/16 08:00	04/11/16 20:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		04/11/16 08:02	04/11/16 17:42	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/16 08:02	04/11/16 17:42	1
Boron	0.11		0.10	0.050	mg/L		04/11/16 08:02	04/11/16 17:42	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/11/16 08:02	04/11/16 17:42	1
Chromium	<0.025		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:42	1
Cobalt	<0.025		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:42	1
Iron	2.1		0.40	0.20	mg/L		04/11/16 08:02	04/11/16 17:42	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/11/16 08:02	04/11/16 17:42	1
Manganese	0.031		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:42	1
Nickel	<0.025		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:42	1
Selenium	<0.050		0.050	0.020	mg/L		04/11/16 08:02	04/11/16 17:42	1
Silver	<0.025		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:42	1
Zinc	<0.50		0.50	0.020	mg/L		04/11/16 08:02	04/11/16 17:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.026		0.0060	0.0060	mg/L		04/11/16 08:00	04/12/16 18:56	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/16 08:00	04/12/16 18:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/11/16 08:02	04/12/16 20:47	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/16 08:02	04/12/16 20:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/11/16 12:00	04/12/16 11:32	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		04/11/16 12:00	04/12/16 10:59	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.057		0.022	0.011	mg/Kg	☼	04/07/16 16:15	04/08/16 11:10	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B05 (6-12)

Lab Sample ID: 500-109836-10

Date Collected: 04/06/16 12:05

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 73.6

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.00		0.200	0.200	SU			04/12/16 15:20	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B05 (12-18)

Lab Sample ID: 500-109836-11

Date Collected: 04/06/16 12:10

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 78.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0036	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Benzene	<0.0046		0.0046	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Bromodichloromethane	<0.0046		0.0046	0.00078	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Bromoform	<0.0046		0.0046	0.00094	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
2-Butanone (MEK)	<0.0046		0.0046	0.0016	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Carbon disulfide	<0.0046		0.0046	0.0017	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Carbon tetrachloride	<0.0046		0.0046	0.00098	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Chlorobenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Chloroethane	<0.0046		0.0046	0.0019	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Chloroform	<0.0046		0.0046	0.00090	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Chloromethane	<0.0046		0.0046	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
cis-1,2-Dichloroethene	<0.0046		0.0046	0.00094	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
cis-1,3-Dichloropropene	<0.0046		0.0046	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Dibromochloromethane	<0.0046		0.0046	0.00053	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
1,1-Dichloroethane	<0.0046		0.0046	0.00095	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
1,2-Dichloroethane	<0.0046		0.0046	0.00068	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
1,1-Dichloroethene	<0.0046		0.0046	0.0017	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
1,2-Dichloropropane	<0.0046		0.0046	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
1,3-Dichloropropane, Total	<0.0046		0.0046	0.0013	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Ethylbenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Methylene Chloride	<0.0046		0.0046	0.0035	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.00095	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Methyl tert-butyl ether	<0.0046		0.0046	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Styrene	<0.0046		0.0046	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
1,1,2,2-Tetrachloroethane	<0.0046		0.0046	0.00073	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Tetrachloroethene	<0.0046		0.0046	0.00096	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Toluene	<0.0046		0.0046	0.0016	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
trans-1,2-Dichloroethene	<0.0046		0.0046	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
trans-1,3-Dichloropropene	<0.0046		0.0046	0.0013	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
1,1,1-Trichloroethane	<0.0046		0.0046	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
1,1,2-Trichloroethane	<0.0046		0.0046	0.00089	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Trichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Vinyl acetate	<0.0046		0.0046	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Vinyl chloride	<0.0046		0.0046	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1
Xylenes, Total	<0.0092		0.0092	0.0017	mg/Kg	☼	04/07/16 15:34	04/08/16 18:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 120	04/07/16 15:34	04/08/16 18:27	1
Dibromofluoromethane	115		75 - 120	04/07/16 15:34	04/08/16 18:27	1
1,2-Dichloroethane-d4 (Surr)	107		69 - 134	04/07/16 15:34	04/08/16 18:27	1
Toluene-d8 (Surr)	118		75 - 123	04/07/16 15:34	04/08/16 18:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.092	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
1,3-Dichlorobenzene	<0.21		0.21	0.047	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B05 (12-18)

Lab Sample ID: 500-109836-11

Date Collected: 04/06/16 12:10

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 78.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.051	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Hexachloroethane	<0.21		0.21	0.063	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
2-Chlorophenol	<0.21		0.21	0.071	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.045	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Naphthalene	<0.041		0.041	0.0064	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
2,4-Dichlorophenol	<0.41		0.41	0.098	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
2,4,5-Trichlorophenol	<0.41		0.41	0.094	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
2-Methylnaphthalene	<0.041		0.041	0.0076	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
2-Nitroaniline	<0.21		0.21	0.056	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
2-Chloronaphthalene	<0.21		0.21	0.046	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
2-Nitrophenol	<0.41		0.41	0.098	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
2,4-Dinitrophenol	<0.83		0.83	0.73	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Acenaphthylene	<0.041		0.041	0.0055	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
2,4-Dinitrotoluene	<0.21		0.21	0.066	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.055	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Hexachlorobenzene	<0.083		0.083	0.0096	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
N-Nitrosodiphenylamine	<0.21		0.21	0.049	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Phenanthrene	0.0068	J	0.041	0.0058	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Anthracene	<0.041		0.041	0.0069	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Fluoranthene	<0.041		0.041	0.0077	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Pyrene	0.010	J	0.041	0.0082	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Butyl benzyl phthalate	<0.21		0.21	0.079	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Benzo[a]anthracene	0.0058	J	0.041	0.0056	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B05 (12-18)

Lab Sample ID: 500-109836-11

Date Collected: 04/06/16 12:10

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 78.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.041		0.041	0.011	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
3,3'-Dichlorobenzidine	<0.21	*	0.21	0.058	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.076	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Benzo[b]fluoranthene	<0.041		0.041	0.0089	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Benzo[a]pyrene	<0.041		0.041	0.0080	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0080	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1
3 & 4 Methylphenol	<0.21		0.21	0.069	mg/Kg	☼	04/08/16 07:31	04/11/16 22:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	70		40 - 130	04/08/16 07:31	04/11/16 22:37	1
Phenol-d5	71		36 - 123	04/08/16 07:31	04/11/16 22:37	1
Nitrobenzene-d5	72		33 - 124	04/08/16 07:31	04/11/16 22:37	1
2-Fluorobiphenyl	81		42 - 115	04/08/16 07:31	04/11/16 22:37	1
2,4,6-Tribromophenol	83		25 - 130	04/08/16 07:31	04/11/16 22:37	1
Terphenyl-d14	86		25 - 150	04/08/16 07:31	04/11/16 22:37	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	3.6		1.2	0.25	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Arsenic	5.9		0.60	0.28	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Barium	35		0.60	0.11	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Beryllium	0.50		0.24	0.052	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Boron	22		3.0	0.42	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Cadmium	0.17		0.12	0.035	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Calcium	110000	B	120	39	mg/Kg	☼	04/07/16 16:03	04/10/16 01:42	10
Chromium	13	B	0.60	0.10	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Cobalt	14		0.30	0.068	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Copper	24		0.60	0.13	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Iron	16000	B	12	4.6	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Lead	18		0.30	0.15	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Magnesium	32000	B	6.0	2.4	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Manganese	450		0.60	0.12	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Nickel	26		0.60	0.16	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Potassium	2200		30	4.9	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Selenium	0.79		0.60	0.30	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Sodium	300		60	7.9	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Thallium	0.71		0.60	0.30	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Vanadium	17		0.30	0.088	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1
Zinc	73		1.2	0.38	mg/Kg	☼	04/07/16 16:03	04/08/16 17:42	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.65		0.50	0.050	mg/L		04/11/16 08:00	04/11/16 21:00	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/16 08:00	04/11/16 21:00	1
Boron	0.66	B	0.50	0.050	mg/L		04/11/16 08:00	04/11/16 21:00	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B05 (12-18)

Lab Sample ID: 500-109836-11

Date Collected: 04/06/16 12:10

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 78.6

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		04/11/16 08:00	04/11/16 21:00	1
Chromium	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:00	1
Cobalt	0.060		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:00	1
Iron	<0.40		0.40	0.20	mg/L		04/11/16 08:00	04/11/16 21:00	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/11/16 08:00	04/11/16 21:00	1
Manganese	7.0		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:00	1
Nickel	0.033		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:00	1
Selenium	<0.050		0.050	0.020	mg/L		04/11/16 08:00	04/11/16 21:00	1
Silver	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:00	1
Zinc	0.045	J	0.50	0.020	mg/L		04/11/16 08:00	04/11/16 21:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.23	J	0.50	0.050	mg/L		04/11/16 08:02	04/11/16 17:49	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/16 08:02	04/11/16 17:49	1
Boron	0.59		0.10	0.050	mg/L		04/11/16 08:02	04/11/16 17:49	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/11/16 08:02	04/11/16 17:49	1
Chromium	0.058		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:49	1
Cobalt	0.025		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:49	1
Iron	49		0.40	0.20	mg/L		04/11/16 08:02	04/11/16 17:49	1
Lead	0.020		0.0075	0.0075	mg/L		04/11/16 08:02	04/11/16 17:49	1
Manganese	0.51		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:49	1
Nickel	0.056		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:49	1
Selenium	<0.050		0.050	0.020	mg/L		04/11/16 08:02	04/11/16 17:49	1
Silver	<0.025		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:49	1
Zinc	0.10	J	0.50	0.020	mg/L		04/11/16 08:02	04/11/16 17:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016		0.0060	0.0060	mg/L		04/11/16 08:00	04/12/16 19:00	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/16 08:00	04/12/16 19:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.057		0.0060	0.0060	mg/L		04/11/16 08:02	04/12/16 20:51	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/16 08:02	04/12/16 20:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/11/16 12:00	04/12/16 10:06	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		04/11/16 12:00	04/12/16 11:01	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023		0.019	0.0099	mg/Kg	☼	04/07/16 16:15	04/08/16 11:18	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B05 (12-18)

Lab Sample ID: 500-109836-11

Date Collected: 04/06/16 12:10

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 78.6

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.02		0.200	0.200	SU			04/12/16 15:23	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B04 (0-6)

Lab Sample ID: 500-109836-12

Date Collected: 04/06/16 13:25

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 81.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.019		0.017	0.0032	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Benzene	<0.0042		0.0042	0.00093	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Bromodichloromethane	<0.0042		0.0042	0.00070	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Bromoform	<0.0042		0.0042	0.00085	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Bromomethane	<0.0042		0.0042	0.0015	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
2-Butanone (MEK)	<0.0042		0.0042	0.0015	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Carbon disulfide	<0.0042		0.0042	0.0015	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Carbon tetrachloride	<0.0042		0.0042	0.00089	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Chlorobenzene	<0.0042		0.0042	0.00099	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Chloroethane	<0.0042		0.0042	0.0018	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Chloroform	<0.0042		0.0042	0.00081	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Chloromethane	<0.0042		0.0042	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
cis-1,2-Dichloroethene	<0.0042		0.0042	0.00085	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
cis-1,3-Dichloropropene	<0.0042		0.0042	0.00095	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Dibromochloromethane	<0.0042		0.0042	0.00048	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
1,1-Dichloroethane	<0.0042		0.0042	0.00086	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
1,2-Dichloroethane	<0.0042		0.0042	0.00062	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
1,1-Dichloroethene	<0.0042		0.0042	0.0015	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
1,2-Dichloropropane	<0.0042		0.0042	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
1,3-Dichloropropane, Total	<0.0042		0.0042	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Ethylbenzene	<0.0042		0.0042	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Methylene Chloride	<0.0042		0.0042	0.0032	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.00086	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Methyl tert-butyl ether	<0.0042		0.0042	0.00099	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Styrene	<0.0042		0.0042	0.00098	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
1,1,2,2-Tetrachloroethane	<0.0042		0.0042	0.00066	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Tetrachloroethene	<0.0042		0.0042	0.00087	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Toluene	<0.0042		0.0042	0.0015	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
trans-1,2-Dichloroethene	<0.0042		0.0042	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
trans-1,3-Dichloropropene	<0.0042		0.0042	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
1,1,1-Trichloroethane	<0.0042		0.0042	0.00097	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
1,1,2-Trichloroethane	<0.0042		0.0042	0.00081	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Trichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Vinyl acetate	<0.0042		0.0042	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Vinyl chloride	<0.0042		0.0042	0.00099	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1
Xylenes, Total	<0.0084		0.0084	0.0015	mg/Kg	☼	04/07/16 15:34	04/08/16 18:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 120	04/07/16 15:34	04/08/16 18:53	1
Dibromofluoromethane	113		75 - 120	04/07/16 15:34	04/08/16 18:53	1
1,2-Dichloroethane-d4 (Surr)	108		69 - 134	04/07/16 15:34	04/08/16 18:53	1
Toluene-d8 (Surr)	114		75 - 123	04/07/16 15:34	04/08/16 18:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.089	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B04 (0-6)

Lab Sample ID: 500-109836-12

Date Collected: 04/06/16 13:25

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 81.8

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	☼	04/08/16 07:31	04/11/16 23:06	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
2-Methylnaphthalene	<0.040		0.040	0.0074	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Phenanthrene	0.010	J	0.040	0.0056	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Fluoranthene	0.0099	J	0.040	0.0074	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Pyrene	0.010	J	0.040	0.0080	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Benzo[a]anthracene	0.0063	J	0.040	0.0054	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B04 (0-6)

Lab Sample ID: 500-109836-12

Date Collected: 04/06/16 13:25

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 81.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
3,3'-Dichlorobenzidine	<0.20	*	0.20	0.056	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Benzo[b]fluoranthene	<0.040		0.040	0.0086	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Benzo[a]pyrene	<0.040		0.040	0.0077	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	04/08/16 07:31	04/11/16 23:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	67		40 - 130	04/08/16 07:31	04/11/16 23:06	1
Phenol-d5	69		36 - 123	04/08/16 07:31	04/11/16 23:06	1
Nitrobenzene-d5	76		33 - 124	04/08/16 07:31	04/11/16 23:06	1
2-Fluorobiphenyl	89		42 - 115	04/08/16 07:31	04/11/16 23:06	1
2,4,6-Tribromophenol	80		25 - 130	04/08/16 07:31	04/11/16 23:06	1
Terphenyl-d14	87		25 - 150	04/08/16 07:31	04/11/16 23:06	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.24	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Arsenic	6.2		0.57	0.26	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Barium	54		0.57	0.10	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Beryllium	0.63		0.23	0.050	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Boron	12		2.9	0.40	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Cadmium	0.12		0.11	0.033	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Calcium	77000	B	110	37	mg/Kg	☼	04/07/16 16:03	04/10/16 01:49	10
Chromium	16	B	0.57	0.098	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Cobalt	12		0.29	0.065	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Copper	21		0.57	0.12	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Iron	17000	B	11	4.4	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Lead	15		0.29	0.14	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Magnesium	23000	B	5.7	2.3	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Manganese	350		0.57	0.11	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Nickel	31		0.57	0.16	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Potassium	2300		29	4.7	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Selenium	<0.57		0.57	0.28	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Silver	<0.29		0.29	0.067	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Sodium	1300		57	7.6	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Vanadium	21		0.29	0.084	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1
Zinc	58		1.1	0.36	mg/Kg	☼	04/07/16 16:03	04/08/16 17:47	1

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		04/11/16 08:00	04/11/16 21:07	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/16 08:00	04/11/16 21:07	1
Boron	0.10	J B	0.50	0.050	mg/L		04/11/16 08:00	04/11/16 21:07	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B04 (0-6)

Lab Sample ID: 500-109836-12

Date Collected: 04/06/16 13:25

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 81.8

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		04/11/16 08:00	04/11/16 21:07	1
Chromium	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:07	1
Cobalt	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:07	1
Iron	<0.40		0.40	0.20	mg/L		04/11/16 08:00	04/11/16 21:07	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/11/16 08:00	04/11/16 21:07	1
Manganese	3.0		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:07	1
Nickel	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:07	1
Selenium	<0.050		0.050	0.020	mg/L		04/11/16 08:00	04/11/16 21:07	1
Silver	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:07	1
Zinc	<0.50		0.50	0.020	mg/L		04/11/16 08:00	04/11/16 21:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.45	J	0.50	0.050	mg/L		04/11/16 08:02	04/11/16 18:12	1
Beryllium	0.0068		0.0040	0.0040	mg/L		04/11/16 08:02	04/11/16 18:12	1
Boron	0.26		0.10	0.050	mg/L		04/11/16 08:02	04/11/16 18:12	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/11/16 08:02	04/11/16 18:12	1
Chromium	0.14		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 18:12	1
Cobalt	0.054		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 18:12	1
Iron	140		0.40	0.20	mg/L		04/11/16 08:02	04/11/16 18:12	1
Lead	0.063		0.0075	0.0075	mg/L		04/11/16 08:02	04/11/16 18:12	1
Manganese	1.4		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 18:12	1
Nickel	0.14		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 18:12	1
Selenium	<0.050		0.050	0.020	mg/L		04/11/16 08:02	04/11/16 18:12	1
Silver	<0.025		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 18:12	1
Zinc	0.29	J	0.50	0.020	mg/L		04/11/16 08:02	04/11/16 18:12	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		04/11/16 08:00	04/12/16 19:04	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/16 08:00	04/12/16 19:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/11/16 08:02	04/12/16 20:55	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/16 08:02	04/12/16 20:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/11/16 12:00	04/12/16 10:08	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		04/11/16 12:00	04/12/16 11:06	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.038		0.018	0.0097	mg/Kg	☼	04/07/16 16:15	04/08/16 11:20	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B04 (0-6)

Lab Sample ID: 500-109836-12

Date Collected: 04/06/16 13:25

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 81.8

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.38		0.200	0.200	SU			04/12/16 15:26	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B04 (6-12)

Lab Sample ID: 500-109836-13

Date Collected: 04/06/16 13:30

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 80.0

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	☼	04/07/16 15:34	04/08/16 19:18	1
Benzene	<0.0044		0.0044	0.00097	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Bromodichloromethane	<0.0044		0.0044	0.00074	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Bromoform	<0.0044		0.0044	0.00090	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Bromomethane	<0.0044		0.0044	0.0016	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
2-Butanone (MEK)	<0.0044		0.0044	0.0016	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Carbon disulfide	<0.0044		0.0044	0.0016	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Carbon tetrachloride	<0.0044		0.0044	0.00094	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Chlorobenzene	<0.0044		0.0044	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Chloroethane	<0.0044		0.0044	0.0018	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Chloroform	<0.0044		0.0044	0.00086	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Chloromethane	<0.0044		0.0044	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
cis-1,2-Dichloroethene	<0.0044		0.0044	0.00090	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
cis-1,3-Dichloropropene	<0.0044		0.0044	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Dibromochloromethane	<0.0044		0.0044	0.00050	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
1,1-Dichloroethane	<0.0044		0.0044	0.00090	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
1,2-Dichloroethane	<0.0044		0.0044	0.00065	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
1,1-Dichloroethene	<0.0044		0.0044	0.0016	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
1,2-Dichloropropane	<0.0044		0.0044	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
1,3-Dichloropropane, Total	<0.0044		0.0044	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Ethylbenzene	<0.0044		0.0044	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Methylene Chloride	<0.0044		0.0044	0.0033	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.00090	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Methyl tert-butyl ether	<0.0044		0.0044	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Styrene	<0.0044		0.0044	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
1,1,2,2-Tetrachloroethane	<0.0044		0.0044	0.00070	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Tetrachloroethene	<0.0044		0.0044	0.00091	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Toluene	<0.0044		0.0044	0.0015	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
trans-1,2-Dichloroethene	<0.0044		0.0044	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
trans-1,3-Dichloropropene	<0.0044		0.0044	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
1,1,1-Trichloroethane	<0.0044		0.0044	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
1,1,2-Trichloroethane	<0.0044		0.0044	0.00085	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Trichloroethene	<0.0044		0.0044	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Vinyl acetate	<0.0044		0.0044	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Vinyl chloride	<0.0044		0.0044	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1
Xylenes, Total	<0.0088		0.0088	0.0016	mg/Kg	☼	04/07/16 15:34	04/08/16 19:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 120	04/07/16 15:34	04/08/16 19:18	1
Dibromofluoromethane	113		75 - 120	04/07/16 15:34	04/08/16 19:18	1
1,2-Dichloroethane-d4 (Surr)	105		69 - 134	04/07/16 15:34	04/08/16 19:18	1
Toluene-d8 (Surr)	113		75 - 123	04/07/16 15:34	04/08/16 19:18	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	☼	04/08/16 07:31	04/11/16 23:34	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B04 (6-12)

Lab Sample ID: 500-109836-13

Date Collected: 04/06/16 13:30

Matrix: Solid

Date Received: 04/06/16 18:07

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	☼	04/08/16 07:31	04/11/16 23:34	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Phenanthrene	0.010	J	0.039	0.0055	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Fluoranthene	0.0094	J	0.039	0.0073	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B04 (6-12)

Lab Sample ID: 500-109836-13

Date Collected: 04/06/16 13:30

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 80.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
3,3'-Dichlorobenzidine	<0.20	*	0.20	0.055	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	04/08/16 07:31	04/11/16 23:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	70		40 - 130	04/08/16 07:31	04/11/16 23:34	1
Phenol-d5	68		36 - 123	04/08/16 07:31	04/11/16 23:34	1
Nitrobenzene-d5	74		33 - 124	04/08/16 07:31	04/11/16 23:34	1
2-Fluorobiphenyl	89		42 - 115	04/08/16 07:31	04/11/16 23:34	1
2,4,6-Tribromophenol	82		25 - 130	04/08/16 07:31	04/11/16 23:34	1
Terphenyl-d14	85		25 - 150	04/08/16 07:31	04/11/16 23:34	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.50	J	1.2	0.25	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Arsenic	9.2		0.60	0.28	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Barium	83		0.60	0.11	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Beryllium	0.79		0.24	0.052	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Boron	16		3.0	0.42	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Cadmium	0.097	J	0.12	0.035	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Calcium	23000	B	12	3.8	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Chromium	19	B	0.60	0.10	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Cobalt	17		0.30	0.067	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Copper	24		0.60	0.13	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Iron	20000	B	12	4.6	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Lead	20		0.30	0.15	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Magnesium	13000	B	6.0	2.4	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Manganese	380		0.60	0.12	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Nickel	37		0.60	0.16	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Potassium	2100		30	4.9	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Selenium	0.61		0.60	0.30	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Sodium	760		60	7.9	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Thallium	0.41	J	0.60	0.29	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Vanadium	24		0.30	0.087	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1
Zinc	70		1.2	0.38	mg/Kg	☼	04/07/16 16:03	04/08/16 17:53	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.63		0.50	0.050	mg/L		04/11/16 08:00	04/11/16 21:14	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/16 08:00	04/11/16 21:14	1
Boron	0.29	J B	0.50	0.050	mg/L		04/11/16 08:00	04/11/16 21:14	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B04 (6-12)

Lab Sample ID: 500-109836-13

Date Collected: 04/06/16 13:30

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 80.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0027	J	0.0050	0.0020	mg/L		04/11/16 08:00	04/11/16 21:14	1
Chromium	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:14	1
Cobalt	0.028		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:14	1
Iron	<0.40		0.40	0.20	mg/L		04/11/16 08:00	04/11/16 21:14	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/11/16 08:00	04/11/16 21:14	1
Manganese	8.0		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:14	1
Nickel	0.021	J	0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:14	1
Selenium	<0.050		0.050	0.020	mg/L		04/11/16 08:00	04/11/16 21:14	1
Silver	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:14	1
Zinc	0.028	J	0.50	0.020	mg/L		04/11/16 08:00	04/11/16 21:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.11	J	0.50	0.050	mg/L		04/11/16 08:02	04/11/16 18:18	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/16 08:02	04/11/16 18:18	1
Boron	0.27		0.10	0.050	mg/L		04/11/16 08:02	04/11/16 18:18	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/11/16 08:02	04/11/16 18:18	1
Chromium	0.019	J	0.025	0.010	mg/L		04/11/16 08:02	04/11/16 18:18	1
Cobalt	<0.025		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 18:18	1
Iron	14		0.40	0.20	mg/L		04/11/16 08:02	04/11/16 18:18	1
Lead	0.0097		0.0075	0.0075	mg/L		04/11/16 08:02	04/11/16 18:18	1
Manganese	0.18		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 18:18	1
Nickel	0.017	J	0.025	0.010	mg/L		04/11/16 08:02	04/11/16 18:18	1
Selenium	<0.050		0.050	0.020	mg/L		04/11/16 08:02	04/11/16 18:18	1
Silver	<0.025		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 18:18	1
Zinc	0.038	J	0.50	0.020	mg/L		04/11/16 08:02	04/11/16 18:18	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		04/11/16 08:00	04/12/16 19:16	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/16 08:00	04/12/16 19:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0069		0.0060	0.0060	mg/L		04/11/16 08:02	04/12/16 20:59	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/16 08:02	04/12/16 20:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/11/16 12:00	04/12/16 10:10	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		04/11/16 12:00	04/12/16 11:08	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.049		0.020	0.010	mg/Kg	☼	04/07/16 16:15	04/08/16 11:22	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B04 (6-12)

Lab Sample ID: 500-109836-13

Date Collected: 04/06/16 13:30

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 80.0

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.66		0.200	0.200	SU			04/12/16 15:29	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B04 (12-18)

Lab Sample ID: 500-109836-14

Date Collected: 04/06/16 13:35

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 78.0

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	☼	04/07/16 15:34	04/08/16 19:44	1
Benzene	<0.0045		0.0045	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Bromodichloromethane	<0.0045		0.0045	0.00077	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Bromoform	<0.0045		0.0045	0.00093	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Carbon disulfide	<0.0045		0.0045	0.0017	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Carbon tetrachloride	<0.0045		0.0045	0.00097	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Chloroethane	<0.0045		0.0045	0.0019	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Chloroform	<0.0045		0.0045	0.00088	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00093	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Dibromochloromethane	<0.0045		0.0045	0.00052	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
1,1-Dichloroethane	<0.0045		0.0045	0.00093	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
1,2-Dichloroethane	<0.0045		0.0045	0.00067	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
1,1-Dichloroethene	<0.0045		0.0045	0.0017	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Methylene Chloride	<0.0045		0.0045	0.0034	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00093	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Styrene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
1,1,2,2-Tetrachloroethane	<0.0045		0.0045	0.00072	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Tetrachloroethene	<0.0045		0.0045	0.00094	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00088	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Vinyl acetate	<0.0045		0.0045	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1
Xylenes, Total	<0.0091		0.0091	0.0017	mg/Kg	☼	04/07/16 15:34	04/08/16 19:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 120	04/07/16 15:34	04/08/16 19:44	1
Dibromofluoromethane	114		75 - 120	04/07/16 15:34	04/08/16 19:44	1
1,2-Dichloroethane-d4 (Surr)	106		69 - 134	04/07/16 15:34	04/08/16 19:44	1
Toluene-d8 (Surr)	114		75 - 123	04/07/16 15:34	04/08/16 19:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.094	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.063	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
1,3-Dichlorobenzene	<0.21		0.21	0.048	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
1,4-Dichlorobenzene	<0.21		0.21	0.054	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B04 (12-18)

Lab Sample ID: 500-109836-14

Date Collected: 04/06/16 13:35

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 78.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.050	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
2-Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.049	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
N-Nitrosodi-n-propylamine	<0.085		0.085	0.052	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Hexachloroethane	<0.21		0.21	0.064	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
2-Chlorophenol	<0.21		0.21	0.072	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Nitrobenzene	<0.042		0.042	0.011	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.043	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Isophorone	<0.21		0.21	0.047	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
2,4-Dimethylphenol	<0.42		0.42	0.16	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Hexachlorobutadiene	<0.21		0.21	0.066	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Naphthalene	<0.042		0.042	0.0065	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
2,4-Dichlorophenol	<0.42		0.42	0.10	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
4-Chloroaniline	<0.85		0.85	0.20	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
2,4,6-Trichlorophenol	<0.42		0.42	0.14	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
2,4,5-Trichlorophenol	<0.42		0.42	0.096	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Hexachlorocyclopentadiene	<0.85		0.85	0.24	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
2-Methylnaphthalene	<0.042		0.042	0.0078	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
2-Nitroaniline	<0.21		0.21	0.057	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
2-Chloronaphthalene	<0.21		0.21	0.047	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
4-Chloro-3-methylphenol	<0.42		0.42	0.14	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
2,6-Dinitrotoluene	<0.21		0.21	0.083	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
2-Nitrophenol	<0.42		0.42	0.10	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
3-Nitroaniline	<0.42		0.42	0.13	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Dimethyl phthalate	<0.21		0.21	0.055	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
2,4-Dinitrophenol	<0.85		0.85	0.74	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Acenaphthylene	<0.042		0.042	0.0056	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
2,4-Dinitrotoluene	<0.21		0.21	0.067	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Acenaphthene	<0.042		0.042	0.0076	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Dibenzofuran	<0.21		0.21	0.049	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
4-Nitrophenol	<0.85		0.85	0.40	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Fluorene	<0.042		0.042	0.0059	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
4-Nitroaniline	<0.42		0.42	0.18	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.056	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Hexachlorobenzene	<0.085		0.085	0.0098	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Diethyl phthalate	<0.21		0.21	0.072	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.049	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Pentachlorophenol	<0.85		0.85	0.68	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
N-Nitrosodiphenylamine	<0.21		0.21	0.050	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
4,6-Dinitro-2-methylphenol	<0.85		0.85	0.34	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Phenanthrene	0.013	J	0.042	0.0059	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Anthracene	<0.042		0.042	0.0071	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Carbazole	<0.21		0.21	0.11	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Di-n-butyl phthalate	<0.21		0.21	0.064	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Fluoranthene	<0.042		0.042	0.0078	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Pyrene	<0.042		0.042	0.0084	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Butyl benzyl phthalate	<0.21		0.21	0.080	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Benzo[a]anthracene	<0.042		0.042	0.0057	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B04 (12-18)

Lab Sample ID: 500-109836-14

Date Collected: 04/06/16 13:35

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 78.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.042		0.042	0.012	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
3,3'-Dichlorobenzidine	<0.21	*	0.21	0.059	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.077	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Di-n-octyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Benzo[b]fluoranthene	<0.042		0.042	0.0091	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Benzo[k]fluoranthene	<0.042		0.042	0.012	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Benzo[a]pyrene	<0.042		0.042	0.0082	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Indeno[1,2,3-cd]pyrene	<0.042		0.042	0.011	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Dibenz(a,h)anthracene	<0.042		0.042	0.0082	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
Benzo[g,h,i]perylene	<0.042		0.042	0.014	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1
3 & 4 Methylphenol	<0.21		0.21	0.070	mg/Kg	☼	04/08/16 07:31	04/12/16 00:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	65		40 - 130	04/08/16 07:31	04/12/16 00:03	1
Phenol-d5	72		36 - 123	04/08/16 07:31	04/12/16 00:03	1
Nitrobenzene-d5	71		33 - 124	04/08/16 07:31	04/12/16 00:03	1
2-Fluorobiphenyl	90		42 - 115	04/08/16 07:31	04/12/16 00:03	1
2,4,6-Tribromophenol	98		25 - 130	04/08/16 07:31	04/12/16 00:03	1
Terphenyl-d14	88		25 - 150	04/08/16 07:31	04/12/16 00:03	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.26	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Arsenic	5.1		0.61	0.28	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Barium	65		0.61	0.11	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Beryllium	0.76		0.25	0.053	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Boron	14		3.1	0.43	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Cadmium	0.080	J	0.12	0.036	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Calcium	19000	B	12	4.0	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Chromium	20	B	0.61	0.11	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Cobalt	13		0.31	0.069	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Copper	19		0.61	0.13	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Iron	21000	B	12	4.7	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Lead	15		0.31	0.15	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Magnesium	12000	B	6.1	2.5	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Manganese	240		0.61	0.12	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Nickel	31		0.61	0.17	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Potassium	2400		31	5.0	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Selenium	0.63		0.61	0.30	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Silver	<0.31		0.31	0.072	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Sodium	440		61	8.1	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Thallium	<0.61		0.61	0.30	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Vanadium	25		0.31	0.090	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1
Zinc	72		1.2	0.39	mg/Kg	☼	04/07/16 16:03	04/08/16 18:06	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.44	J	0.50	0.050	mg/L		04/11/16 08:00	04/11/16 21:21	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/16 08:00	04/11/16 21:21	1
Boron	0.27	J B	0.50	0.050	mg/L		04/11/16 08:00	04/11/16 21:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B04 (12-18)

Lab Sample ID: 500-109836-14

Date Collected: 04/06/16 13:35

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 78.0

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		04/11/16 08:00	04/11/16 21:21	1
Chromium	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:21	1
Cobalt	0.011	J	0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:21	1
Iron	<0.40		0.40	0.20	mg/L		04/11/16 08:00	04/11/16 21:21	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/11/16 08:00	04/11/16 21:21	1
Manganese	3.1		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:21	1
Nickel	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:21	1
Selenium	<0.050		0.050	0.020	mg/L		04/11/16 08:00	04/11/16 21:21	1
Silver	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 21:21	1
Zinc	<0.50		0.50	0.020	mg/L		04/11/16 08:00	04/11/16 21:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.19	J	0.50	0.050	mg/L		04/11/16 08:02	04/11/16 18:25	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/16 08:02	04/11/16 18:25	1
Boron	0.30		0.10	0.050	mg/L		04/11/16 08:02	04/11/16 18:25	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/11/16 08:02	04/11/16 18:25	1
Chromium	0.053		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 18:25	1
Cobalt	0.016	J	0.025	0.010	mg/L		04/11/16 08:02	04/11/16 18:25	1
Iron	40		0.40	0.20	mg/L		04/11/16 08:02	04/11/16 18:25	1
Lead	0.023		0.0075	0.0075	mg/L		04/11/16 08:02	04/11/16 18:25	1
Manganese	0.35		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 18:25	1
Nickel	0.045		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 18:25	1
Selenium	<0.050		0.050	0.020	mg/L		04/11/16 08:02	04/11/16 18:25	1
Silver	<0.025		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 18:25	1
Zinc	0.10	J	0.50	0.020	mg/L		04/11/16 08:02	04/11/16 18:25	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		04/11/16 08:00	04/12/16 19:20	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/16 08:00	04/12/16 19:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/11/16 08:02	04/12/16 21:11	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/16 08:02	04/12/16 21:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/11/16 12:00	04/12/16 10:12	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		04/11/16 12:00	04/12/16 11:10	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.034		0.020	0.011	mg/Kg	☼	04/07/16 16:15	04/08/16 11:25	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Client Sample ID: 2028V-25-B04 (12-18)

Lab Sample ID: 500-109836-14

Date Collected: 04/06/16 13:35

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 78.0

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.97		0.200	0.200	SU			04/12/16 15:32	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

Qualifiers

GC/MS Semi 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.

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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-2

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	04-30-17

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: BT / ST _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

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

Chain of Custody Record

Lab Job #: 500-109836
 Chain of Custody Number: E912-04
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
EE		1009341-0012-02									
Project Name		Lab Project #		Sampling		Date		Time		# of Containers	
W012 (US14)		SC012022		Date		Time		Matrix		Matrix	
Project Location/State		Lab PM		Date		Time		Matrix		Matrix	
Coke County, IL		D. Wright		Date		Time		Matrix		Matrix	
Sampler		Lab PM		Date		Time		Matrix		Matrix	
S. Cooper		D. Wright		Date		Time		Matrix		Matrix	
Lab ID	MS/SD	Sample ID	Date	Time	# of Containers	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix
9		2028V-25-1305 (0-6)	4-6-16	1200	2	S	WW	SWW	Total Solids	Turbidity	THAL matter
10		2028V-25-1305 (6-12)	4-6-16	1205	2	S	WW	SWW	Total Solids	Turbidity	THAL matter
11		2028V-25-1305 (12-18)	4-6-16	1210	2	S	WW	SWW	Total Solids	Turbidity	THAL matter
12		2028V-25-1304 (0-6)	4-6-16	1325	2	S	WW	SWW	Total Solids	Turbidity	THAL matter
13		2028V-25-1304 (6-12)	4-6-16	1330	2	S	WW	SWW	Total Solids	Turbidity	THAL matter
14		2028V-25-1304 (12-18)	4-6-16	1335	2	S	WW	SWW	Total Solids	Turbidity	THAL matter
15		2028V-25-1303 (0-6)	4-6-16	1435	2	S	WW	SWW	Total Solids	Turbidity	THAL matter
16		2028V-25-1303 (6-12)	4-6-16	1435	2	S	WW	SWW	Total Solids	Turbidity	THAL matter
17		2028V-25-1303 (12-18)	4-6-16	1440	2	S	WW	SWW	Total Solids	Turbidity	THAL matter
18		2028V-25-1303 (12-18)	4-6-16	1445	2	S	WW	SWW	Total Solids	Turbidity	THAL matter

- 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 6 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]	EE	4-6-16	1500	[Signature]	TA	4/6/16	1500
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[Signature]	TA	4/6/16	1807	[Signature]	TA-CHT	4/7/16	0710
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: 710
 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: 500-109836-2

Login Number: 109836

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	2.4,2.9
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 3512 (US Route 14) Office Phone Number, if available: _____

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

701 - 802 East Northwest Highway (ISGS #2028V-26)

City: Des Plaines State: IL Zip Code: 60016

County: Cook Township: Maine

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

Latitude: 42.050700° Longitude: -87.906385°

(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: See Att. A 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 3512 (US Route 14)

Latitude: 42.050700° Longitude: -87.906385°

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 2028V-26-B01 was sampled within the construction zone adjacent to ISGS #2028V-26 (Concord Commons Condominiums). Refer to PSI Report for ISGS #2028V-26 (Concord Commons Condominiums) including Table 4-3, and Figure 4-1.

- 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 J109836-1.

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:

Neil J. Brown

Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

9/8/2016

Date:



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

LPC-663 2028V-26 Attachment A

ISGS #2028V-26 (Concord Commons Condominiums)

701 – 802 E. Northwest Highway

Des Plaines, Cook County, IL 60016

The following BOL numbers are all related to the site listed above:

- 0310635004
- 0310630026
- 0310635543

Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-439-09; WorkOrder #12

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 #2028V-26 (Concord Commons Condominiums)		Comparison Criteria					
	2028V-26-B01		MACs			TACO		
BORING	2028V-26-B01		Most Stringent	Within an MSA	Within Chicago	Residential	SCGIER	
SAMPLE	2028V-26-B01 (0-6)	2028V-26-B01 (6-12)						
MATRIX	Soil	Soil						
DEPTH (feet)	0-6	6-12						
pH	8.45	8.32						
VOCs (None Detected)								
SVOCs (mg/kg)								
Benzo[a]anthracene	0.0089 J	ND U	0.9	1.8	1.1	1.8	--	
Benzo[b]fluoranthene	0.0097 J	ND U	0.9	2.1	1.5	2.1	--	
Fluoranthene	0.016 J	ND U	3,100	--	--	3,100	--	
Phenanthrene	0.017 J	ND U	--	--	--	--	--	
Pyrene	0.012 J	ND U	2,300	--	--	2,300	--	
Inorganics (mg/kg)								
Arsenic	8.5	8	11.3	13	--	13	--	
Barium	65	70	1,500	--	--	5,500	--	
Beryllium	0.72	0.82	22	--	--	160	--	
Boron	12	15	40	--	--	16,000	--	
Calcium	33,000	29,000	--	--	--	--	--	
Chromium	18	21	21	--	--	230	--	
Cobalt	17	16	20	--	--	4,700	--	
Copper	22	23	2,900	--	--	2,900	--	
Iron	20,000 †m	21,000 †m	15,000	15,900	--	--	--	
Lead	18	16	107	--	--	400	--	
Magnesium	17,000	16,000	325,000	--	--	--	--	
Manganese	550	470	630	636	--	1,600	--	
Mercury	0.091	0.03	0.89	--	--	10	--	
Nickel	42	40	100	--	--	1,600	--	
Potassium	2,600	2,800	--	--	--	--	--	
Selenium	0.29 J	0.39 J	1.3	--	--	390	--	
Sodium	1,500	1,200	--	--	--	--	--	
Thallium	0.39 J	ND U	2.6	--	--	6.3	--	
Vanadium	23	27	550	--	--	550	--	
Zinc	59	63	5,100	--	--	23,000	--	
TCLP Metals (mg/L)								
Barium	0.46 J	0.49 J	--	--	--	--	2	
Beryllium	ND U	ND U	--	--	--	--	0.004	
Chromium	ND U	ND U	--	--	--	--	0.1	
Iron	ND U	ND U	--	--	--	--	5	
Lead	ND U	ND U	--	--	--	--	0.0075	
Manganese	0.73 L	0.39 L	--	--	--	--	0.15	
Nickel	ND U	ND U	--	--	--	--	0.1	
Thallium	ND U	ND U	--	--	--	--	0.002	
SPLP Metals (mg/L)								
Barium	0.55	0.93	--	--	--	--	2	
Beryllium	0.0086 L	0.014 L	--	--	--	--	0.004	
Boron	0.36	0.63	--	--	--	--	2	
Chromium	0.18 L	0.25 L	--	--	--	--	0.1	
Cobalt	0.038	0.044	--	--	--	--	1	
Iron	160 L	160 L	--	--	--	--	5	
Lead	0.055 L	0.063 L	--	--	--	--	0.0075	
Manganese	0.62 L	0.87 L	--	--	--	--	0.15	
Nickel	0.14 L	0.17 L	--	--	--	--	0.1	
Thallium	0.0024 L	0.0021 L	--	--	--	--	0.002	
Zinc	0.34 J	0.32 J	--	--	--	--	5	

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: 500-109836-1
Client Project/Site: IDOT - Des Plaines - WO 012

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

Attn: Mr. Dean Tiebout



Authorized for release by:
4/15/2016 8:09:33 AM

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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-1

Job ID: 500-109836-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-109836-1

Comments

No additional comments.

Receipt

The samples were received on 4/6/2016 6:07 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.4° C and 2.9° C.

GC/MS VOA

Method(s) 8260B: The laboratory control sample (LCS) for 330283 recovered outside control limits for the following analyte: Bromomethane. This analyte was biased high in the LCS, was within limits in the LCSD, 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: 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 500-330259 and analytical batch 500-330608 had 1 analyte outside control limits: 3,3'-Dichlorobenzidine ; 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 500-330193 and analytical batch 500-330432 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) 6010B: The following samples was diluted to bring the concentration of target and non-target analytes within the calibration range: (500-109836-E-18-B ^1). Elevated reporting limits (RLs) are provided.

Method(s) 6020A: The internal standard (Tb) was used to report the element Thallium (Tl) in batch 500-330905.

Method(s) 6020A: The internal standard (Tb) was used to report the element Thallium (Tl) in batch 500-330846

Method(s) 6020A: The internal standard (Tb) was used to report the element Thallium (Tl) in batch 500-330846

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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-1

Client Sample ID: 2028V-26-B01 (0-6)

Lab Sample ID: 500-109836-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.017	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.016	J	0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.012	J	0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0089	J	0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.0097	J	0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA
Arsenic	8.5		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	65		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.72		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	12		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Calcium	33000	B	12	3.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	18	B	0.58	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	17		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	22		0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	20000	B	12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	18		0.29	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	17000	B	5.8	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	550		0.58	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	42		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2600		29	4.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.29	J	0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	1500		58	7.7	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.39	J	0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	59		1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.46	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.15	J B	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.73		0.025	0.010	mg/L	1		6010B	TCLP
Barium	0.55		0.50	0.050	mg/L	1		6010B	SPLP East
Beryllium	0.0086		0.0040	0.0040	mg/L	1		6010B	SPLP East
Boron	0.36		0.10	0.050	mg/L	1		6010B	SPLP East
Chromium	0.18		0.025	0.010	mg/L	1		6010B	SPLP East
Cobalt	0.038		0.025	0.010	mg/L	1		6010B	SPLP East
Iron	160		0.40	0.20	mg/L	1		6010B	SPLP East
Lead	0.055		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.62		0.025	0.010	mg/L	1		6010B	SPLP East
Nickel	0.14		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	0.34	J	0.50	0.020	mg/L	1		6010B	SPLP East
Thallium	0.0024		0.0020	0.0020	mg/L	1		6020A	SPLP East
Mercury	0.091		0.020	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.45		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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-1

Client Sample ID: 2028V-26-B01 (6-12)

Lab Sample ID: 500-109836-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Arsenic	8.0		0.60	0.28	mg/Kg	1		☼	6010B	Total/NA
Barium	70		0.60	0.11	mg/Kg	1		☼	6010B	Total/NA
Beryllium	0.82		0.24	0.052	mg/Kg	1		☼	6010B	Total/NA
Boron	15		3.0	0.42	mg/Kg	1		☼	6010B	Total/NA
Calcium	29000	B	12	3.9	mg/Kg	1		☼	6010B	Total/NA
Chromium	21	B	0.60	0.10	mg/Kg	1		☼	6010B	Total/NA
Cobalt	16		0.30	0.068	mg/Kg	1		☼	6010B	Total/NA
Copper	23		0.60	0.13	mg/Kg	1		☼	6010B	Total/NA
Iron	21000	B	12	4.6	mg/Kg	1		☼	6010B	Total/NA
Lead	16		0.30	0.15	mg/Kg	1		☼	6010B	Total/NA
Magnesium	16000	B	6.0	2.4	mg/Kg	1		☼	6010B	Total/NA
Manganese	470		0.60	0.12	mg/Kg	1		☼	6010B	Total/NA
Nickel	40		0.60	0.16	mg/Kg	1		☼	6010B	Total/NA
Potassium	2800		30	4.9	mg/Kg	1		☼	6010B	Total/NA
Selenium	0.39	J	0.60	0.30	mg/Kg	1		☼	6010B	Total/NA
Sodium	1200		60	8.0	mg/Kg	1		☼	6010B	Total/NA
Vanadium	27		0.30	0.088	mg/Kg	1		☼	6010B	Total/NA
Zinc	63		1.2	0.38	mg/Kg	1		☼	6010B	Total/NA
Barium	0.49	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.21	J B	0.50	0.050	mg/L	1			6010B	TCLP
Manganese	0.39		0.025	0.010	mg/L	1			6010B	TCLP
Barium	0.93		0.50	0.050	mg/L	1			6010B	SPLP East
Beryllium	0.014		0.0040	0.0040	mg/L	1			6010B	SPLP East
Boron	0.63		0.10	0.050	mg/L	1			6010B	SPLP East
Chromium	0.25		0.025	0.010	mg/L	1			6010B	SPLP East
Cobalt	0.044		0.025	0.010	mg/L	1			6010B	SPLP East
Iron	160		0.40	0.20	mg/L	1			6010B	SPLP East
Lead	0.063		0.0075	0.0075	mg/L	1			6010B	SPLP East
Manganese	0.87		0.025	0.010	mg/L	1			6010B	SPLP East
Nickel	0.17		0.025	0.010	mg/L	1			6010B	SPLP East
Zinc	0.32	J	0.50	0.020	mg/L	1			6010B	SPLP East
Thallium	0.0021		0.0020	0.0020	mg/L	1			6020A	SPLP East
Mercury	0.030		0.021	0.011	mg/Kg	1		☼	7471B	Total/NA
pH	8.32		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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-109836-7	2028V-26-B01 (0-6)	Solid	04/06/16 11:10	04/06/16 18:07
500-109836-8	2028V-26-B01 (6-12)	Solid	04/06/16 11:15	04/06/16 18:07

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-1

Client Sample ID: 2028V-26-B01 (0-6)

Lab Sample ID: 500-109836-7

Date Collected: 04/06/16 11:10

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0033	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Benzene	<0.0043		0.0043	0.00096	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Bromodichloromethane	<0.0043		0.0043	0.00073	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Bromoform	<0.0043		0.0043	0.00088	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
2-Butanone (MEK)	<0.0043		0.0043	0.0015	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Carbon disulfide	<0.0043		0.0043	0.0016	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Carbon tetrachloride	<0.0043		0.0043	0.00092	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Chlorobenzene	<0.0043		0.0043	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Chloroethane	<0.0043		0.0043	0.0018	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Chloroform	<0.0043		0.0043	0.00084	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Chloromethane	<0.0043		0.0043	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
cis-1,2-Dichloroethene	<0.0043		0.0043	0.00088	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
cis-1,3-Dichloropropene	<0.0043		0.0043	0.00098	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Dibromochloromethane	<0.0043		0.0043	0.00050	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
1,1-Dichloroethane	<0.0043		0.0043	0.00089	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
1,2-Dichloroethane	<0.0043		0.0043	0.00064	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
1,1-Dichloroethene	<0.0043		0.0043	0.0016	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
1,2-Dichloropropane	<0.0043		0.0043	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
1,3-Dichloropropane, Total	<0.0043		0.0043	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Ethylbenzene	<0.0043		0.0043	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Methylene Chloride	<0.0043		0.0043	0.0033	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.00089	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Methyl tert-butyl ether	<0.0043		0.0043	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Styrene	<0.0043		0.0043	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
1,1,2,2-Tetrachloroethane	<0.0043		0.0043	0.00069	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Tetrachloroethene	<0.0043		0.0043	0.00090	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Toluene	<0.0043		0.0043	0.0015	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
trans-1,2-Dichloroethene	<0.0043		0.0043	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
trans-1,3-Dichloropropene	<0.0043		0.0043	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
1,1,1-Trichloroethane	<0.0043		0.0043	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
1,1,2-Trichloroethane	<0.0043		0.0043	0.00084	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Trichloroethene	<0.0043		0.0043	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Vinyl acetate	<0.0043		0.0043	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Vinyl chloride	<0.0043		0.0043	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1
Xylenes, Total	<0.0086		0.0086	0.0016	mg/Kg	☼	04/07/16 15:34	04/08/16 16:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 120	04/07/16 15:34	04/08/16 16:45	1
Dibromofluoromethane	114		75 - 120	04/07/16 15:34	04/08/16 16:45	1
1,2-Dichloroethane-d4 (Surr)	110		69 - 134	04/07/16 15:34	04/08/16 16:45	1
Toluene-d8 (Surr)	114		75 - 123	04/07/16 15:34	04/08/16 16:45	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	☼	04/08/16 07:31	04/11/16 20:44	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-1

Client Sample ID: 2028V-26-B01 (0-6)

Lab Sample ID: 500-109836-7

Date Collected: 04/06/16 11:10

Matrix: Solid

Date Received: 04/06/16 18:07

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	0.047	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Phenanthrene	0.017	J	0.039	0.0055	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Fluoranthene	0.016	J	0.039	0.0073	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Pyrene	0.012	J	0.039	0.0078	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Benzo[a]anthracene	0.0089	J	0.039	0.0053	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-1

Client Sample ID: 2028V-26-B01 (0-6)

Lab Sample ID: 500-109836-7

Date Collected: 04/06/16 11:10

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
3,3'-Dichlorobenzidine	<0.20	*	0.20	0.055	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Benzo[b]fluoranthene	0.0097	J	0.039	0.0085	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	04/08/16 07:31	04/11/16 20:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	67		40 - 130	04/08/16 07:31	04/11/16 20:44	1
Phenol-d5	75		36 - 123	04/08/16 07:31	04/11/16 20:44	1
Nitrobenzene-d5	77		33 - 124	04/08/16 07:31	04/11/16 20:44	1
2-Fluorobiphenyl	94		42 - 115	04/08/16 07:31	04/11/16 20:44	1
2,4,6-Tribromophenol	86		25 - 130	04/08/16 07:31	04/11/16 20:44	1
Terphenyl-d14	82		25 - 150	04/08/16 07:31	04/11/16 20:44	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	☼	04/07/16 16:03	04/08/16 17:22	1
Arsenic	8.5		0.58	0.27	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Barium	65		0.58	0.11	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Beryllium	0.72		0.23	0.050	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Boron	12		2.9	0.41	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Cadmium	<0.12		0.12	0.034	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Calcium	33000	B	12	3.8	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Chromium	18	B	0.58	0.10	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Cobalt	17		0.29	0.066	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Copper	22		0.58	0.13	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Iron	20000	B	12	4.5	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Lead	18		0.29	0.15	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Magnesium	17000	B	5.8	2.4	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Manganese	550		0.58	0.12	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Nickel	42		0.58	0.16	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Potassium	2600		29	4.8	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Selenium	0.29	J	0.58	0.29	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Sodium	1500		58	7.7	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Thallium	0.39	J	0.58	0.29	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Vanadium	23		0.29	0.085	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	1
Zinc	59		1.2	0.37	mg/Kg	☼	04/07/16 16:03	04/08/16 17:22	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		04/11/16 08:00	04/11/16 20:18	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/16 08:00	04/11/16 20:18	1
Boron	0.15	J B	0.50	0.050	mg/L		04/11/16 08:00	04/11/16 20:18	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-1

Client Sample ID: 2028V-26-B01 (0-6)

Lab Sample ID: 500-109836-7

Date Collected: 04/06/16 11:10

Matrix: Solid

Date Received: 04/06/16 18:07

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		04/11/16 08:00	04/11/16 20:18	1
Chromium	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:18	1
Cobalt	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:18	1
Iron	<0.40		0.40	0.20	mg/L		04/11/16 08:00	04/11/16 20:18	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/11/16 08:00	04/11/16 20:18	1
Manganese	0.73		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:18	1
Nickel	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:18	1
Selenium	<0.050		0.050	0.020	mg/L		04/11/16 08:00	04/11/16 20:18	1
Silver	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:18	1
Zinc	<0.50		0.50	0.020	mg/L		04/11/16 08:00	04/11/16 20:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.55		0.50	0.050	mg/L		04/11/16 08:02	04/11/16 17:22	1
Beryllium	0.0086		0.0040	0.0040	mg/L		04/11/16 08:02	04/11/16 17:22	1
Boron	0.36		0.10	0.050	mg/L		04/11/16 08:02	04/11/16 17:22	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/11/16 08:02	04/11/16 17:22	1
Chromium	0.18		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:22	1
Cobalt	0.038		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:22	1
Iron	160		0.40	0.20	mg/L		04/11/16 08:02	04/11/16 17:22	1
Lead	0.055		0.0075	0.0075	mg/L		04/11/16 08:02	04/11/16 17:22	1
Manganese	0.62		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:22	1
Nickel	0.14		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:22	1
Selenium	<0.050		0.050	0.020	mg/L		04/11/16 08:02	04/11/16 17:22	1
Silver	<0.025		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:22	1
Zinc	0.34	J	0.50	0.020	mg/L		04/11/16 08:02	04/11/16 17:22	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		04/11/16 08:00	04/12/16 18:35	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/16 08:00	04/13/16 11:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/11/16 08:02	04/12/16 20:26	1
Thallium	0.0024		0.0020	0.0020	mg/L		04/11/16 08:02	04/12/16 20:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/11/16 12:00	04/12/16 11:30	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		04/11/16 12:00	04/12/16 10:53	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091		0.020	0.010	mg/Kg	☼	04/07/16 16:15	04/08/16 11:03	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-1

Client Sample ID: 2028V-26-B01 (0-6)

Lab Sample ID: 500-109836-7

Date Collected: 04/06/16 11:10

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 81.6

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.45		0.200	0.200	SU			04/12/16 15:11	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-1

Client Sample ID: 2028V-26-B01 (6-12)

Lab Sample ID: 500-109836-8

Date Collected: 04/06/16 11:15

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 80.8

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	☼	04/07/16 15:34	04/08/16 17:11	1
Benzene	<0.0044		0.0044	0.00099	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Bromodichloromethane	<0.0044		0.0044	0.00075	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Bromoform	<0.0044		0.0044	0.00091	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Bromomethane	<0.0044		0.0044	0.0016	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
2-Butanone (MEK)	<0.0044		0.0044	0.0016	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Carbon disulfide	<0.0044		0.0044	0.0016	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Carbon tetrachloride	<0.0044		0.0044	0.00095	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Chlorobenzene	<0.0044		0.0044	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Chloroethane	<0.0044		0.0044	0.0019	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Chloroform	<0.0044		0.0044	0.00087	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Chloromethane	<0.0044		0.0044	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
cis-1,2-Dichloroethene	<0.0044		0.0044	0.00091	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
cis-1,3-Dichloropropene	<0.0044		0.0044	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Dibromochloromethane	<0.0044		0.0044	0.00051	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
1,1-Dichloroethane	<0.0044		0.0044	0.00092	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
1,2-Dichloroethane	<0.0044		0.0044	0.00066	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
1,1-Dichloroethene	<0.0044		0.0044	0.0016	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
1,2-Dichloropropane	<0.0044		0.0044	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
1,3-Dichloropropane, Total	<0.0044		0.0044	0.0013	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Ethylbenzene	<0.0044		0.0044	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Methylene Chloride	<0.0044		0.0044	0.0034	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.00092	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Methyl tert-butyl ether	<0.0044		0.0044	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Styrene	<0.0044		0.0044	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
1,1,2,2-Tetrachloroethane	<0.0044		0.0044	0.00071	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Tetrachloroethene	<0.0044		0.0044	0.00092	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Toluene	<0.0044		0.0044	0.0015	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
trans-1,2-Dichloroethene	<0.0044		0.0044	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
trans-1,3-Dichloropropene	<0.0044		0.0044	0.0013	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
1,1,1-Trichloroethane	<0.0044		0.0044	0.0010	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
1,1,2-Trichloroethane	<0.0044		0.0044	0.00086	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Trichloroethene	<0.0044		0.0044	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Vinyl acetate	<0.0044		0.0044	0.0012	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Vinyl chloride	<0.0044		0.0044	0.0011	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1
Xylenes, Total	<0.0089		0.0089	0.0016	mg/Kg	☼	04/07/16 15:34	04/08/16 17:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 120	04/07/16 15:34	04/08/16 17:11	1
Dibromofluoromethane	110		75 - 120	04/07/16 15:34	04/08/16 17:11	1
1,2-Dichloroethane-d4 (Surr)	109		69 - 134	04/07/16 15:34	04/08/16 17:11	1
Toluene-d8 (Surr)	117		75 - 123	04/07/16 15:34	04/08/16 17:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.091	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.061	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-1

Client Sample ID: 2028V-26-B01 (6-12)

Lab Sample ID: 500-109836-8

Date Collected: 04/06/16 11:15

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 80.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.047	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
2,4,5-Trichlorophenol	<0.41		0.41	0.093	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
2-Methylnaphthalene	<0.041		0.041	0.0075	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
2,4-Dinitrophenol	<0.83		0.83	0.72	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Hexachlorobenzene	<0.083		0.083	0.0095	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Diethyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Phenanthrene	<0.041		0.041	0.0057	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Anthracene	<0.041		0.041	0.0068	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Di-n-butyl phthalate	<0.21		0.21	0.062	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Pyrene	<0.041		0.041	0.0081	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-1

Client Sample ID: 2028V-26-B01 (6-12)

Lab Sample ID: 500-109836-8

Date Collected: 04/06/16 11:15

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 80.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.041		0.041	0.011	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
3,3'-Dichlorobenzidine	<0.21	*	0.21	0.057	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Benzo[b]fluoranthene	<0.041		0.041	0.0088	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Benzo[a]pyrene	<0.041		0.041	0.0079	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	04/08/16 07:31	04/11/16 21:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	78		40 - 130	04/08/16 07:31	04/11/16 21:12	1
Phenol-d5	84		36 - 123	04/08/16 07:31	04/11/16 21:12	1
Nitrobenzene-d5	88		33 - 124	04/08/16 07:31	04/11/16 21:12	1
2-Fluorobiphenyl	93		42 - 115	04/08/16 07:31	04/11/16 21:12	1
2,4,6-Tribromophenol	94		25 - 130	04/08/16 07:31	04/11/16 21:12	1
Terphenyl-d14	84		25 - 150	04/08/16 07:31	04/11/16 21:12	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	☼	04/07/16 16:03	04/08/16 17:27	1
Arsenic	8.0		0.60	0.28	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Barium	70		0.60	0.11	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Beryllium	0.82		0.24	0.052	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Boron	15		3.0	0.42	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Cadmium	<0.12		0.12	0.035	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Calcium	29000	B	12	3.9	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Chromium	21	B	0.60	0.10	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Cobalt	16		0.30	0.068	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Copper	23		0.60	0.13	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Iron	21000	B	12	4.6	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Lead	16		0.30	0.15	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Magnesium	16000	B	6.0	2.4	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Manganese	470		0.60	0.12	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Nickel	40		0.60	0.16	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Potassium	2800		30	4.9	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Selenium	0.39	J	0.60	0.30	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Sodium	1200		60	8.0	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Vanadium	27		0.30	0.088	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	1
Zinc	63		1.2	0.38	mg/Kg	☼	04/07/16 16:03	04/08/16 17:27	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		04/11/16 08:00	04/11/16 20:24	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/11/16 08:00	04/11/16 20:24	1
Boron	0.21	J B	0.50	0.050	mg/L		04/11/16 08:00	04/11/16 20:24	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-1

Client Sample ID: 2028V-26-B01 (6-12)

Lab Sample ID: 500-109836-8

Date Collected: 04/06/16 11:15

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 80.8

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		04/11/16 08:00	04/11/16 20:24	1
Chromium	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:24	1
Cobalt	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:24	1
Iron	<0.40		0.40	0.20	mg/L		04/11/16 08:00	04/11/16 20:24	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/11/16 08:00	04/11/16 20:24	1
Manganese	0.39		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:24	1
Nickel	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:24	1
Selenium	<0.050		0.050	0.020	mg/L		04/11/16 08:00	04/11/16 20:24	1
Silver	<0.025		0.025	0.010	mg/L		04/11/16 08:00	04/11/16 20:24	1
Zinc	<0.50		0.50	0.020	mg/L		04/11/16 08:00	04/11/16 20:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.93		0.50	0.050	mg/L		04/11/16 08:02	04/11/16 17:29	1
Beryllium	0.014		0.0040	0.0040	mg/L		04/11/16 08:02	04/11/16 17:29	1
Boron	0.63		0.10	0.050	mg/L		04/11/16 08:02	04/11/16 17:29	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/11/16 08:02	04/11/16 17:29	1
Chromium	0.25		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:29	1
Cobalt	0.044		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:29	1
Iron	160		0.40	0.20	mg/L		04/11/16 08:02	04/11/16 17:29	1
Lead	0.063		0.0075	0.0075	mg/L		04/11/16 08:02	04/11/16 17:29	1
Manganese	0.87		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:29	1
Nickel	0.17		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:29	1
Selenium	<0.050		0.050	0.020	mg/L		04/11/16 08:02	04/11/16 17:29	1
Silver	<0.025		0.025	0.010	mg/L		04/11/16 08:02	04/11/16 17:29	1
Zinc	0.32	J	0.50	0.020	mg/L		04/11/16 08:02	04/11/16 17:29	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		04/11/16 08:00	04/12/16 18:48	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/11/16 08:00	04/12/16 18:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/11/16 08:02	04/12/16 20:38	1
Thallium	0.0021		0.0020	0.0020	mg/L		04/11/16 08:02	04/12/16 20:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/11/16 12:00	04/12/16 10:00	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		04/11/16 12:00	04/12/16 10:55	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.030		0.021	0.011	mg/Kg	☼	04/07/16 16:15	04/08/16 11:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-1

Client Sample ID: 2028V-26-B01 (6-12)

Lab Sample ID: 500-109836-8

Date Collected: 04/06/16 11:15

Matrix: Solid

Date Received: 04/06/16 18:07

Percent Solids: 80.8

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.32		0.200	0.200	SU			04/12/16 15:14	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-1

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
*	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.

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.

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 - Des Plaines - WO 012

TestAmerica Job ID: 500-109836-1

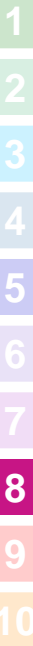
Laboratory: TestAmerica Chicago

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	04-30-17

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



500-109836 COC

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

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

Chain of Custody Record

Lab Job #: 500-109836
Chain of Custody Number: E912-03
Page 1 of 1
Temperature °C of Cooler: 2.4, 2.9

Client: <u>EE</u>		Client Project #: <u>1109311.0012.01</u>		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: <u>W012 (US14)</u>		Lab Project #: <u>50012022</u>		Parameter								
Project Location/State: <u>Cook County, IL</u>		Lab Project #										
Sample: <u>S. Cooper</u>		Lab PM: <u>J. Wright</u>										
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	VOC	S VOC	Total VOC bag 11	Total VOC TAP water	pH/µg/L	Comments
1		2028V-26-304 (0-6)	4-6-16	0925	2 S		X	X	X	X	X	
2		2028V-26-304 (6-12)	4-6-16	0930	2 S		X	X	X	X	X	
3		2028V-26-303 (0-6)	4-6-16	1000	2 S		X	X	X	X	X	
4		2028V-26-303 (6-12)	4-6-16	1005	2 S		X	X	X	X	X	
5		2028V-26-302 (0-6)	4-6-16	1035	2 S		X	X	X	X	X	
6		2028V-26-302 (6-12)	4-6-16	1040	2 S		X	X	X	X	X	
7		2028V-26-301 (0-6)	4-6-16	1110	2 S		X	X	X	X	X	
8		2028V-26-301 (6-12)	4-6-16	1115	2 S		X	X	X	X	X	
					4-6-16							

Turnaround Time Required (Business Days)

1 Day 2 Days 5 Days 7 Days 10 Days 15 Days 6 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>7-6-16</u> Time: <u>1500</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>7/6/16</u> Time: <u>1500</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>4/6/16</u> Time: <u>1807</u>	Received By: <u>[Signature]</u> Company: <u>TA-CHE</u> Date: <u>4/7/16</u> Time: <u>0710</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: 500-109836-1

Login Number: 109836

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	2.4,2.9
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	

