



Illinois Environmental Protection Agency

Page 1 of 2

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: FAU 2711 (IL Route 131) Office Phone Number, if available: _____

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

40269 - 40605 N. Green Bay Road and 40264 - 40708 N. Kenosha Road (ISGS #1806V-53)

City: Beach Park State: IL Zip Code: 60099

County: Lake Township: Benton

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

Latitude: 42.44882 Longitude: -87.87557
(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: FAU 2711 (IL Route 131)Latitude: 42.44882 Longitude: -87.87557Uncontaminated 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 1086V-53-B03 was sampled within the construction zone adjacent to ISGS #1806V-53 (Residential Building). Refer to PSI Report for ISGS #1806V-53 (Residential Building) including Table 4-4, and Figure 4-7.

- 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 J120540-1.

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.

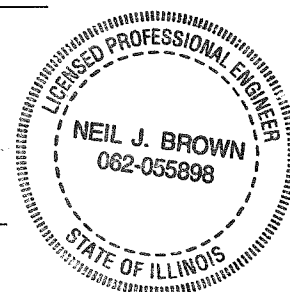
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

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:

2-1-2017
 Date:



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

Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-228-14; WorkOrder #20

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.

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

 = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #1806V-53 (Residential Building)	Comparison Criteria					
BORING	1806V-53-B03	MACs			TACO		
SAMPLE	1806V-53-B03 (2-3)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil						
DEPTH (feet)	2-3						
pH	8.5						
VOCs (None Detected)							
SVOCs (mg/kg)							
Benzo(b)fluoranthene	0.0097 J	0.9	2.1	1.5	2.1	170	--
Fluoranthene	0.0081 J	3100	--	--	3,100	82,000	--
Inorganics (mg/kg)							
Antimony	0.32 J	5	--	--	31	82	0.006
Arsenic	7	11.3	13	--	13	61	0.05
Barium	76	1,500	--	--	5,500	14,000	2
Beryllium	0.68	22	--	--	160	410	0.004
Boron	3.9	40	--	--	16,000	41,000	2
Cadmium	0.29	5.2	--	--	78	200	0.005
Calcium	8,300	--	--	--	--	--	--
Chromium	19	21	--	--	230	690	0.1
Cobalt	11	20	--	--	4,700	12,000	1
Copper	75	2,900	--	--	2,900	8,200	0.65
Iron	21,000 †m	15,000	15,900	--	--	--	5
Lead	29	107	--	--	400	700	0.0075
Magnesium	6,900	325,000	--	--	--	730,000	--
Manganese	390	630	636	--	1,600	4,100	0.15
Mercury	0.037	0.89	--	--	10	0.1	0.002
Nickel	20	100	--	--	1,600	4,100	0.1
Potassium	1,500	--	--	--	--	--	--
Selenium	0.57 J	1.3	--	--	390	1,000	0.05
Sodium	1,700	--	--	--	--	--	--
Thallium	1.4	2.6	--	--	6.3	160	0.002
Vanadium	25	550	--	--	550	1,400	0.049
Zinc	74	5,100	--	--	23,000	61,000	5
TCLP Metals (mg/L)							
Barium	0.31 J	--	--	--	--	--	2
Boron	0.073 J	--	--	--	--	--	2
Iron	ND U	--	--	--	--	--	5
Manganese	2.7 L	--	--	--	--	--	0.15
SPLP Metals (mg/L)							
Manganese	2.1 L	--	--	--	--	--	0.15

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-120540-1

Client Project/Site: IDOT - IL 131 - WO 020

For:

Ecology and Environment, Inc.

33 West Monroe St.

Suite 1410

Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:

12/2/2016 4:57:44 PM

Jodie Bracken, Project Management Assistant II

jodie.bracken@testamericainc.com

Designee for

Richard Wright, Senior Project Manager

(708)534-5200

richard.wright@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

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

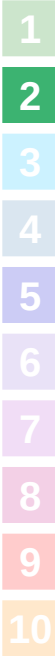


Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	7
Client Sample Results	8
Definitions	20
Certification Summary	21
Chain of Custody	22
Receipt Checklists	23

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-1

Job ID: 500-120540-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-120540-1

Comments

No additional comments.

Receipt

The samples were received on 11/22/2016 4:32 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.0° C and 5.5° C.

GC/MS VOA

Method(s) 8260B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 500-362636 recovered outside control limits for the following analytes: 2-Hexanone and 4-Methyl-2-Pentanone.

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

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one base/neutral surrogate outside acceptance limits: (500-120540-E-1-D MS). 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 following matrix spike/matrix spike duplicate (MS/MSD) recovered at 0% for one or more analytes. Data has been qualified and reported. (500-120540-E-1-D MS) and (500-120540-E-1-E MSD)

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

Metals

Method(s) 6010B: The following sample was diluted due to the abundance of target and non-target analytes: 1806V-53-B01 (3-4) (500-120540-2). 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.

General Chemistry

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

Organic Prep

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

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-1

1

2

3

4

5

6

7

8

9

10

Client Sample ID: 1806V-53-B03 (2-3)

Lab Sample ID: 500-120540-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Fluoranthene	0.0081	J	0.042	0.0078	mg/Kg	1	☼	8270D	Total/NA	
Benzo[b]fluoranthene	0.0097	J	0.042	0.0091	mg/Kg	1	☼	8270D	Total/NA	
Antimony	0.32	J	1.2	0.25	mg/Kg	1	☼	6010B	Total/NA	
Arsenic	7.0		0.60	0.28	mg/Kg	1	☼	6010B	Total/NA	
Barium	76		0.60	0.11	mg/Kg	1	☼	6010B	Total/NA	
Beryllium	0.68		0.24	0.052	mg/Kg	1	☼	6010B	Total/NA	
Boron	3.9		3.0	0.42	mg/Kg	1	☼	6010B	Total/NA	
Cadmium	0.29		0.12	0.035	mg/Kg	1	☼	6010B	Total/NA	
Calcium	8300	B	12	3.9	mg/Kg	1	☼	6010B	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-1

Client Sample ID: 1806V-53-B03 (2-3) (Continued)

Lab Sample ID: 500-120540-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chromium	19	B	0.60	0.10	mg/Kg	1		✱	6010B	Total/NA
Cobalt	11		0.30	0.068	mg/Kg	1		✱	6010B	Total/NA
Copper	75		0.60	0.13	mg/Kg	1		✱	6010B	Total/NA
Iron	21000	B	12	4.6	mg/Kg	1		✱	6010B	Total/NA
Lead	29		0.30	0.15	mg/Kg	1		✱	6010B	Total/NA
Magnesium	6900	B	6.0	2.4	mg/Kg	1		✱	6010B	Total/NA
Manganese	390	B	0.60	0.12	mg/Kg	1		✱	6010B	Total/NA
Nickel	20	B	0.60	0.16	mg/Kg	1		✱	6010B	Total/NA
Potassium	1500		30	4.9	mg/Kg	1		✱	6010B	Total/NA
Selenium	0.57	J	0.60	0.30	mg/Kg	1		✱	6010B	Total/NA
Sodium	1700		60	7.9	mg/Kg	1		✱	6010B	Total/NA
Thallium	1.4		0.60	0.30	mg/Kg	1		✱	6010B	Total/NA
Vanadium	25		0.30	0.088	mg/Kg	1		✱	6010B	Total/NA
Zinc	74		1.2	0.38	mg/Kg	1		✱	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.073	J	0.50	0.050	mg/L	1			6010B	TCLP
Manganese	2.7		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.020	J	0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.067	J B	0.50	0.020	mg/L	1			6010B	TCLP
Manganese	2.1		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.037		0.020	0.010	mg/Kg	1		✱	7471B	Total/NA
pH	8.5		0.2	0.2	SU	1			9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-120540-3	1806V-53-B03 (2-3)	Solid	11/22/16 08:10	11/22/16 16:32

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-1

Client Sample ID: 1806V-53-B03 (2-3)

Lab Sample ID: 500-120540-3

Date Collected: 11/22/16 08:10

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 78.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.021		0.021	0.0093	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Benzene	<0.0021		0.0021	0.00055	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Bromodichloromethane	<0.0021		0.0021	0.00044	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Bromoform	<0.0021		0.0021	0.00062	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Bromomethane	<0.0053		0.0053	0.0020	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
2-Butanone (MEK)	<0.0053		0.0053	0.0024	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Carbon disulfide	<0.0053		0.0053	0.0011	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Carbon tetrachloride	<0.0021		0.0021	0.00062	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Chlorobenzene	<0.0021		0.0021	0.00079	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Chloroethane	<0.0053		0.0053	0.0016	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Chloroform	<0.0021		0.0021	0.00074	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Chloromethane	<0.0053		0.0053	0.0021	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
cis-1,2-Dichloroethene	<0.0021		0.0021	0.00060	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
cis-1,3-Dichloropropene	<0.0021		0.0021	0.00064	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Dibromochloromethane	<0.0021		0.0021	0.00070	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
1,1-Dichloroethane	<0.0021		0.0021	0.00073	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
1,2-Dichloroethane	<0.0053		0.0053	0.0017	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
1,1-Dichloroethene	<0.0021		0.0021	0.00074	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
1,2-Dichloropropane	<0.0021		0.0021	0.00055	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
1,3-Dichloropropene, Total	<0.0021		0.0021	0.00075	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Ethylbenzene	<0.0021		0.0021	0.0010	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
2-Hexanone	<0.0053	*	0.0053	0.0017	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Methylene Chloride	<0.0053		0.0053	0.0021	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
4-Methyl-2-pentanone (MIBK)	<0.0053	*	0.0053	0.0016	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Methyl tert-butyl ether	<0.0021		0.0021	0.00063	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Styrene	<0.0021		0.0021	0.00065	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
1,1,1,2-Tetrachloroethane	<0.0021		0.0021	0.00068	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Tetrachloroethene	<0.0021		0.0021	0.00073	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Toluene	<0.0021		0.0021	0.00054	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
trans-1,2-Dichloroethene	<0.0021		0.0021	0.00095	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
trans-1,3-Dichloropropene	<0.0021		0.0021	0.00075	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
1,1,1-Trichloroethane	<0.0021		0.0021	0.00072	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
1,1,2-Trichloroethane	<0.0021		0.0021	0.00092	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Trichloroethene	<0.0021		0.0021	0.00072	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Vinyl acetate	<0.0053		0.0053	0.0019	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Vinyl chloride	<0.0021		0.0021	0.00095	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1
Xylenes, Total	<0.0043		0.0043	0.00068	mg/Kg	☼	11/22/16 17:05	11/29/16 06:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 120	11/22/16 17:05	11/29/16 06:04	1
Dibromofluoromethane	110		75 - 120	11/22/16 17:05	11/29/16 06:04	1
1,2-Dichloroethane-d4 (Surr)	110		69 - 134	11/22/16 17:05	11/29/16 06:04	1
Toluene-d8 (Surr)	105		75 - 123	11/22/16 17:05	11/29/16 06:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.093	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.063	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
1,3-Dichlorobenzene	<0.21		0.21	0.047	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
1,4-Dichlorobenzene	<0.21		0.21	0.054	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-1

Client Sample ID: 1806V-53-B03 (2-3)

Lab Sample ID: 500-120540-3

Date Collected: 11/22/16 08:10

Matrix: Solid

Date Received: 11/22/16 16:32

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	0.050	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
2-Methylphenol	<0.21		0.21	0.067	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.049	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
N-Nitrosodi-n-propylamine	<0.085		0.085	0.051	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Hexachloroethane	<0.21		0.21	0.064	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
2-Chlorophenol	<0.21		0.21	0.072	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Nitrobenzene	<0.042		0.042	0.010	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.043	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.045	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Isophorone	<0.21		0.21	0.047	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
2,4-Dimethylphenol	<0.42		0.42	0.16	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Hexachlorobutadiene	<0.21		0.21	0.066	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Naphthalene	<0.042		0.042	0.0065	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
2,4-Dichlorophenol	<0.42		0.42	0.10	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
4-Chloroaniline	<0.85		0.85	0.20	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
2,4,6-Trichlorophenol	<0.42		0.42	0.14	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
2,4,5-Trichlorophenol	<0.42		0.42	0.096	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Hexachlorocyclopentadiene	<0.85		0.85	0.24	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
2-Methylnaphthalene	<0.085		0.085	0.0077	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
2-Nitroaniline	<0.21		0.21	0.057	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
2-Chloronaphthalene	<0.21		0.21	0.046	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
4-Chloro-3-methylphenol	<0.42		0.42	0.14	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
2,6-Dinitrotoluene	<0.21		0.21	0.083	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
2-Nitrophenol	<0.42		0.42	0.099	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
3-Nitroaniline	<0.42		0.42	0.13	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Dimethyl phthalate	<0.21		0.21	0.055	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
2,4-Dinitrophenol	<0.85		0.85	0.74	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Acenaphthylene	<0.042		0.042	0.0055	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
2,4-Dinitrotoluene	<0.21		0.21	0.067	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Acenaphthene	<0.042		0.042	0.0075	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Dibenzofuran	<0.21		0.21	0.049	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
4-Nitrophenol	<0.85		0.85	0.40	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Fluorene	<0.042		0.042	0.0059	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
4-Nitroaniline	<0.42		0.42	0.18	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.055	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Hexachlorobenzene	<0.085		0.085	0.0097	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Diethyl phthalate	<0.21		0.21	0.071	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.049	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Pentachlorophenol	<0.85		0.85	0.67	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
N-Nitrosodiphenylamine	<0.21		0.21	0.050	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
4,6-Dinitro-2-methylphenol	<0.85		0.85	0.34	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Phenanthrene	<0.042		0.042	0.0059	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Anthracene	<0.042		0.042	0.0070	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Di-n-butyl phthalate	<0.21		0.21	0.064	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Fluoranthene	0.0081	J	0.042	0.0078	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Pyrene	<0.042		0.042	0.0083	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Butyl benzyl phthalate	<0.21		0.21	0.080	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Benzo[a]anthracene	<0.042		0.042	0.0057	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-1

Client Sample ID: 1806V-53-B03 (2-3)

Lab Sample ID: 500-120540-3

Date Collected: 11/22/16 08:10

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 78.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.042		0.042	0.011	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.059	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.077	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Di-n-octyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Benzo[b]fluoranthene	0.0097	J	0.042	0.0091	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Benzo[k]fluoranthene	<0.042		0.042	0.012	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Benzo[a]pyrene	<0.042		0.042	0.0081	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Indeno[1,2,3-cd]pyrene	<0.042		0.042	0.011	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Dibenz(a,h)anthracene	<0.042		0.042	0.0081	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
Benzo[g,h,i]perylene	<0.042		0.042	0.014	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1
3 & 4 Methylphenol	<0.21		0.21	0.070	mg/Kg	☼	11/27/16 17:50	11/29/16 00:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	72		40 - 130	11/27/16 17:50	11/29/16 00:00	1
Phenol-d5	79		36 - 123	11/27/16 17:50	11/29/16 00:00	1
Nitrobenzene-d5	108		33 - 124	11/27/16 17:50	11/29/16 00:00	1
2-Fluorobiphenyl	81		42 - 115	11/27/16 17:50	11/29/16 00:00	1
2,4,6-Tribromophenol	93		25 - 130	11/27/16 17:50	11/29/16 00:00	1
Terphenyl-d14	105		25 - 150	11/27/16 17:50	11/29/16 00:00	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.32	J	1.2	0.25	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Arsenic	7.0		0.60	0.28	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Barium	76		0.60	0.11	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Beryllium	0.68		0.24	0.052	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Boron	3.9		3.0	0.42	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Cadmium	0.29		0.12	0.035	mg/Kg	☼	11/26/16 10:35	11/30/16 18:02	1
Calcium	8300	B	12	3.9	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Chromium	19	B	0.60	0.10	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Cobalt	11		0.30	0.068	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Copper	75		0.60	0.13	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Iron	21000	B	12	4.6	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Lead	29		0.30	0.15	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Magnesium	6900	B	6.0	2.4	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Manganese	390	B	0.60	0.12	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Nickel	20	B	0.60	0.16	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Potassium	1500		30	4.9	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Selenium	0.57	J	0.60	0.30	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Sodium	1700		60	7.9	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Thallium	1.4		0.60	0.30	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Vanadium	25		0.30	0.088	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1
Zinc	74		1.2	0.38	mg/Kg	☼	11/26/16 10:35	11/29/16 14:24	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.31	J	0.50	0.050	mg/L	—	11/29/16 14:33	11/30/16 16:49	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	—	11/29/16 14:33	11/30/16 16:49	1
Boron	0.073	J	0.50	0.050	mg/L	—	11/29/16 14:33	11/30/16 16:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-1

Client Sample ID: 1806V-53-B03 (2-3)

Lab Sample ID: 500-120540-3

Date Collected: 11/22/16 08:10

Matrix: Solid

Date Received: 11/22/16 16:32

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	—	11/29/16 14:33	11/30/16 16:49	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 16:49	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 16:49	1
Iron	<0.40		0.40	0.20	mg/L	—	11/29/16 14:33	11/30/16 16:49	1
Lead	<0.0075		0.0075	0.0075	mg/L	—	11/29/16 14:33	11/30/16 16:49	1
Manganese	2.7		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 16:49	1
Nickel	0.020	J	0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 16:49	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/29/16 14:33	11/30/16 16:49	1
Silver	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 16:49	1
Zinc	0.067	J B	0.50	0.020	mg/L	—	11/29/16 14:33	11/30/16 16:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	2.1		0.025	0.010	mg/L	—	11/29/16 14:28	11/30/16 22:14	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	—	11/29/16 14:33	11/30/16 14:12	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/29/16 14:33	11/30/16 14:12	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	—	11/29/16 12:45	11/30/16 09:11	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.037		0.020	0.010	mg/Kg	☼	11/25/16 15:00	11/28/16 13:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.5		0.2	0.2	SU	—		11/25/16 16:08	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control 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.
*	ISTD response or retention time outside acceptable limits
E	Result exceeded calibration range.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

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 - IL 131 - WO 020

TestAmerica Job ID: 500-120540-1

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

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)

Report To

Contact:

Company:

Address:

Address:

Phone:

Fax:

E-Mail:

(optional)

Bill To

Contact:

Company:

Address*

Address*

Phone:

Fax:

PO#/Reference#

Chain of Custody Record

Lab Job #: 500-120540

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 4.3-74.0, 5.8-75.5

[illegible]

Turnaround Time Required (Business Days)

☐ 1 Day ☐ 2 Days ☐ 5 Days ☐ 7 Days ☐ 10 Days ☐ 15 Days ☐ Other
 Requested Due Date

Sample Disposal

Return to Client

Disposal by Lab

Archive for Months

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

Relinquished By <i>E. J. Doyle</i>	Company <i>EDI</i>	Date <i>11/22/16</i>	Time <i>14:00</i>	Received By <i>P. Neal</i>	Company <i>TA</i>	Date <i>11/22/16</i>	Time <i>14:25</i>	Lab Courier <i>TA</i>
Relinquished By <i>P. Neal</i>	Company <i>TA</i>	Date <i>11/22/16</i>	Time <i>1632</i>	Received By <i>David Perry</i>	Company <i>TA/CHT</i>	Date <i>11/22/16</i>	Time <i>16:32</i>	Shipped ☐
Relinquished By	Company	Date	Time	Received By	Company	Date	Time	Hand Delivered ☐

Matrix Key

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

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-120540-1

Login Number: 120540

List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel M

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	4.0,5.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Illinois Environmental Protection Agency

Page 1 of 2

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: FAU 2711 (IL Route 131) Office Phone Number, if available: _____

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

12626 - 12771 W. 28th Place (ISGS #1806V-60)

City: Beach Park State: IL Zip Code: 60099

County: Lake Township: Benton

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

Latitude: 42.44273 Longitude: -87.87683

(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

Project Name: FAU 2711 (IL Route 131)Latitude: 42.44273 Longitude: -87.87683Uncontaminated 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 1086V-60-B01, -B02, -B04, -B05, -B06, and -B10 were sampled within the construction zone adjacent to ISGS #1806V-60 (Residential Buildings). Refer to PSI Report for ISGS #1806V-60 (Residential Buildings) including Table 4-4, and Figure 4-1, 4-3, and 4-5.

- 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 J120431-1 and J120488-2.

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:



Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

2-1-2017

Date:



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

Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-228-14; WorkOrder #20

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

= pH is less than 6.25 or greater than 9.0 standard units.

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

r = Concentration exceeds a TACO Tier 1 RO for residential soil exposure.

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 applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #1806V-60 (Residential Buildings)						Comparison Criteria				
BORING	1806V-60-B01	1806V-60-B02	1806V-60-B04	1806V-60-B05	1806V-60-B06	1806V-60-B10	MACs			TACO	
SAMPLE	1806V-60-B01 (1-2)	1806V-60-B02 (1-2)	1806V-60-B04 (0-1)	1806V-60-B05 (1-2)	1806V-60-B06 (1-2)	1806V-60-B10 (0-1)	Most Stringent	Within an MSA	Within Chicago	Residential	SCGIER
MATRIX	Soil	Soil	Soil	Soil	Soil	Soil					
DEPTH (feet)	1-2	1-2	0-1	1-2	1-2	0-1					
pH	8.7	8.9	9	8.6	8.4	8.3					
VOCs (None Detected)											
SVOCs (mg/kg)											
Acenaphthene	ND U	ND U	ND U	ND U	ND U	0.01 J	570	--	--	4,700	--
Acenaphthylene	ND U	ND U	ND U	ND U	ND U	0.0059 J	--	--	--	--	--
Anthracene	0.012 J	ND U	ND U	ND U	ND U	0.039 J	12,000	--	--	23,000	--
Benzo(a)anthracene	0.048	ND U	ND U	0.021 J	ND U	0.12	0.9	1.8	1.1	1.8	--
Benzo(a)pyrene	0.061	ND U	0.024 J	0.025 J	ND U	0.15 †	0.09	2.1	1.3	2.1	--
Benzo(b)fluoranthene	0.095	ND U	0.043	0.04	0.0098 J	0.28	0.9	2.1	1.5	2.1	--
Benzo(g,h,i)perylene	0.035 J	ND U	ND U	0.024 J	ND U	0.082	--	--	--	--	--
Benzo(k)fluoranthene	0.036 J	ND U	0.013 J	0.038	ND U	0.089	9	--	--	1.7	--
Bis(2-ethylhexyl) phthalate	ND U	ND U	0.076 J	ND U	ND U	0.59	46	--	--	46	--
Chrysene	0.06	ND U	ND U	0.03 J	ND U	0.18	88	--	--	88	--
Dibenz(a,h)anthracene	ND U	ND U	ND U	ND U	ND U	0.023 J	0.09	0.42	0.2	0.42	--
Fluoranthene	0.11	ND U	0.028 J	0.041	0.0082 J	0.27	3100	--	--	3,100	--
Fluorene	ND U	ND U	ND U	ND U	ND U	0.018 J	560	--	--	3,100	--
Indeno(1,2,3-cd)pyrene	0.035 J	ND U	0.014 J	0.02 J	ND U	0.081	0.9	1.6	0.9	1.6	--
Phenanthrene	0.058	ND U	0.0071 J	0.016 J	ND U	0.18	--	--	--	--	--
Pyrene	0.095	ND U	0.029 J	0.037 J	ND U	0.24	2,300	--	--	2,300	--
Inorganics (mg/kg)											
Antimony	0.54 J	0.72 J	0.84 J	0.3 J	0.36 J	0.39 J	5	--	--	31	0.006
Arsenic	5.4	6.6	6.9	6	8.2	5.4	11.3	13	--	13	0.05
Barium	71	47	50	55	58	65	1,500	--	--	5,500	2
Beryllium	0.7	0.69	0.61	0.62	0.9	0.72	22	--	--	160	0.004
Boron	4.8	9.1	8	3.5	4.1	4.7	40	--	--	16,000	2
Cadmium	0.31	0.13	0.24	0.29	0.16	0.3	5.2	--	--	78	0.005
Calcium	8,500	71,000	68,000	19,000	2,200	10,000	--	--	--	--	--
Chromium	19	18	17	17	26 †	21	21	--	--	230	0.1
Cobalt	13	9.8	11	11	17	11	20	--	--	4,700	1
Copper	21	23	21	18	26	23	2,900	--	--	2,900	0.65
Iron	18,000 †m	20,000 †m	18,000 †m	17,000 †m	27,000 †m	18,000 †m	15,000	15,900	--	--	5
Lead	35	14	26	45	21	30	107	--	--	400	0.0075
Magnesium	6,900	27,000	21,000	13,000	5,400	8,000	325,000	--	--	--	--
Manganese	630	330	480	510	590	390	630	636	--	1,600	0.15
Mercury	0.061	0.02	0.032 J	0.033	0.045	0.05	0.89	--	--	10	0.002
Nickel	26	28	27	21	36	27	100	--	--	1,600	0.1
Potassium	1,500	2,100	2,000	1,200	1,800	1,700	--	--	--	--	--
Selenium	0.71	ND U	0.37 J	0.82	0.82	0.53 J	1.3	--	--	390	0.05
Sodium	1,600	1,000	1,300	990	1,400	760	--	--	--	--	--
Vanadium	24	23	22	21	27	23	550	--	--	550	0.049
Zinc	82	54	67	68	71	88	5,100	--	--	23,000	5
TCLP Metals (mg/L)											
Barium	0.25 J	0.35 J	0.37 J	0.28 J	0.13 J	0.32 J	--	--	--	--	2
Boron	0.067 J	0.06 J	0.065 J	0.37 J	0.37 J	0.51	--	--	--	--	2
Cadmium	0.0022 J	0.0044 J	0.002 J	0.0022 J	ND U	0.002 J	--	--	--	--	0.005
Chromium	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	0.1
Iron	ND U	ND U	ND U	ND U	0.39 J	ND U	--	--	--	--	5
Lead	0.02 L	0.011 L	0.16 L	ND U	ND U	ND U	--	--	--	--	0.0075
Manganese	0.51 L	0.77 L	0.088	1.2 L	0.56 L	0.52 L	--	--	--	--	0.15
SPLP Metals (mg/L)											
Lead	0.16 L	0.087 L	0.16 L	NA	NA	NA	--	--	--	--	0.0075
Manganese	1.3 L	0.84 L	NA	0.81 L	0.41 L	0.81 L	--	--	--	--	0.15

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-120431-1

Client Project/Site: IDOT - IL 131 - WO 020

For:

Ecology and Environment, Inc.

33 West Monroe St.

Suite 1410

Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:

11/30/2016 3:59:54 PM

Jodie Bracken, Project Management Assistant II

jodie.bracken@testamericainc.com

Designee for

Richard Wright, Senior Project Manager

(708)534-5200

richard.wright@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

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

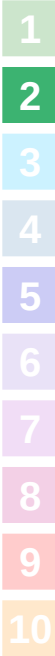


Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	8
Client Sample Results	9
Definitions	25
Certification Summary	26
Chain of Custody	27
Receipt Checklists	28

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

Job ID: 500-120431-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-120431-1

Comments

No additional comments.

Receipt

The samples were received on 11/18/2016 3:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.3° C.

Receipt Exceptions

The ID on the label for laboratory sample -4 is 1806V-61-B01 (1-2). The chain of custody has 1806V-60-B01 (1-2). Logged in per chain of custody and confirmed with EDI.

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 following samples contained one base surrogate outside acceptance limits: 1806V-60-B03 (0-1) (500-120431-2). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with batch 500-362275 had 1 analyte outside control limits: 2,4-Dinitrophenol. These results have been reported and qualified. (LCS 500-362275/2-A)

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 500-362251 and 500-362333 contained Zinc above the reporting limit (RL). The samples associated with this method blank had results for the target compound below the RL; therefore, re-extraction and/or re-analysis of samples were not performed.

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

General Chemistry

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

Organic Prep

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

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

Client Sample ID: 1806V-60-B04 (0-1)

Lab Sample ID: 500-120431-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Phenanthrene	0.0071	J	0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA	
Fluoranthene	0.028	J	0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA	
Pyrene	0.029	J	0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA	
Bis(2-ethylhexyl) phthalate	0.076	J	0.20	0.071	mg/Kg	1	☼	8270D	Total/NA	
Benzo[b]fluoranthene	0.043		0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA	
Benzo[k]fluoranthene	0.013	J	0.039	0.012	mg/Kg	1	☼	8270D	Total/NA	
Benzo[a]pyrene	0.024	J	0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA	
Indeno[1,2,3-cd]pyrene	0.014	J	0.039	0.010	mg/Kg	1	☼	8270D	Total/NA	
Antimony	0.84	J	1.2	0.24	mg/Kg	1	☼	6010B	Total/NA	
Arsenic	6.9		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA	
Barium	50		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA	
Beryllium	0.61		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA	
Boron	8.0		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA	
Cadmium	0.24		0.12	0.034	mg/Kg	1	☼	6010B	Total/NA	
Calcium	68000		120	38	mg/Kg	10	☼	6010B	Total/NA	
Chromium	17	B	0.58	0.10	mg/Kg	1	☼	6010B	Total/NA	
Cobalt	11		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA	
Copper	21		0.58	0.13	mg/Kg	1	☼	6010B	Total/NA	
Iron	18000	B	12	4.5	mg/Kg	1	☼	6010B	Total/NA	
Lead	26		0.29	0.15	mg/Kg	1	☼	6010B	Total/NA	
Magnesium	21000		5.8	2.4	mg/Kg	1	☼	6010B	Total/NA	
Manganese	480		0.58	0.12	mg/Kg	1	☼	6010B	Total/NA	
Nickel	27		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA	
Potassium	2000	B	29	4.8	mg/Kg	1	☼	6010B	Total/NA	
Selenium	0.37	J	0.58	0.29	mg/Kg	1	☼	6010B	Total/NA	
Sodium	1300		58	7.7	mg/Kg	1	☼	6010B	Total/NA	
Vanadium	22		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA	
Zinc	67	B	1.2	0.37	mg/Kg	1	☼	6010B	Total/NA	
Barium	0.37	J	0.50	0.050	mg/L	1		6010B	TCLP	
Boron	0.065	J	0.50	0.050	mg/L	1		6010B	TCLP	
Cadmium	0.0020	J	0.0050	0.0020	mg/L	1		6010B	TCLP	
Lead	0.16		0.0075	0.0075	mg/L	1		6010B	TCLP	
Manganese	0.088		0.025	0.010	mg/L	1		6010B	TCLP	
Zinc	0.029	J B	0.50	0.020	mg/L	1		6010B	TCLP	
Lead	0.16		0.0075	0.0075	mg/L	1		6010B	SPLP East	
Mercury	0.032		0.018	0.0096	mg/Kg	1	☼	7471B	Total/NA	
pH	9.0		0.2	0.2	SU	1		9045D	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

1

2

3

4

5

6

7

8

9

10

Client Sample ID: 1806V-60-B02 (1-2)

Lab Sample ID: 500-120431-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Antimony	0.72	J	1.2	0.24	mg/Kg	1	✳	6010B	Total/NA	
Arsenic	6.6		0.58	0.27	mg/Kg	1	✳	6010B	Total/NA	
Barium	47		0.58	0.11	mg/Kg	1	✳	6010B	Total/NA	
Beryllium	0.69		0.23	0.050	mg/Kg	1	✳	6010B	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

Client Sample ID: 1806V-60-B02 (1-2) (Continued)

Lab Sample ID: 500-120431-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Boron	9.1		2.9	0.40	mg/Kg	1		✱	6010B	Total/NA
Cadmium	0.13		0.12	0.033	mg/Kg	1		✱	6010B	Total/NA
Calcium	71000		120	37	mg/Kg	10		✱	6010B	Total/NA
Chromium	18	B	0.58	0.099	mg/Kg	1		✱	6010B	Total/NA
Cobalt	9.8		0.29	0.065	mg/Kg	1		✱	6010B	Total/NA
Copper	23		0.58	0.13	mg/Kg	1		✱	6010B	Total/NA
Iron	20000	B	12	4.5	mg/Kg	1		✱	6010B	Total/NA
Lead	14		0.29	0.14	mg/Kg	1		✱	6010B	Total/NA
Magnesium	27000		5.8	2.3	mg/Kg	1		✱	6010B	Total/NA
Manganese	330		0.58	0.11	mg/Kg	1		✱	6010B	Total/NA
Nickel	28		0.58	0.16	mg/Kg	1		✱	6010B	Total/NA
Potassium	2100	B	29	4.7	mg/Kg	1		✱	6010B	Total/NA
Sodium	1000		58	7.6	mg/Kg	1		✱	6010B	Total/NA
Vanadium	23		0.29	0.084	mg/Kg	1		✱	6010B	Total/NA
Zinc	54	B	1.2	0.37	mg/Kg	1		✱	6010B	Total/NA
Barium	0.35	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.060	J	0.50	0.050	mg/L	1			6010B	TCLP
Cadmium	0.0044	J	0.0050	0.0020	mg/L	1			6010B	TCLP
Lead	0.011		0.0075	0.0075	mg/L	1			6010B	TCLP
Manganese	0.77		0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.022	J B	0.50	0.020	mg/L	1			6010B	TCLP
Lead	0.087		0.0075	0.0075	mg/L	1			6010B	SPLP East
Manganese	0.84		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.020		0.019	0.010	mg/Kg	1		✱	7471B	Total/NA
pH	8.9		0.2	0.2	SU	1			9045D	Total/NA

Client Sample ID: 1806V-60-B01 (1-2)

Lab Sample ID: 500-120431-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Phenanthrene	0.058		0.042	0.0059	mg/Kg	1		✱	8270D	Total/NA
Anthracene	0.012	J	0.042	0.0071	mg/Kg	1		✱	8270D	Total/NA
Fluoranthene	0.11		0.042	0.0078	mg/Kg	1		✱	8270D	Total/NA
Pyrene	0.095		0.042	0.0084	mg/Kg	1		✱	8270D	Total/NA
Benzo[a]anthracene	0.048		0.042	0.0057	mg/Kg	1		✱	8270D	Total/NA
Chrysene	0.060		0.042	0.012	mg/Kg	1		✱	8270D	Total/NA
Benzo[b]fluoranthene	0.095		0.042	0.0091	mg/Kg	1		✱	8270D	Total/NA
Benzo[k]fluoranthene	0.036	J	0.042	0.012	mg/Kg	1		✱	8270D	Total/NA
Benzo[a]pyrene	0.061		0.042	0.0082	mg/Kg	1		✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.035	J	0.042	0.011	mg/Kg	1		✱	8270D	Total/NA
Benzo[g,h,i]perylene	0.035	J	0.042	0.014	mg/Kg	1		✱	8270D	Total/NA
Antimony	0.54	J	1.1	0.23	mg/Kg	1		✱	6010B	Total/NA
Arsenic	5.4		0.55	0.25	mg/Kg	1		✱	6010B	Total/NA
Barium	71		0.55	0.10	mg/Kg	1		✱	6010B	Total/NA
Beryllium	0.70		0.22	0.047	mg/Kg	1		✱	6010B	Total/NA
Boron	4.8		2.7	0.38	mg/Kg	1		✱	6010B	Total/NA
Cadmium	0.31		0.11	0.032	mg/Kg	1		✱	6010B	Total/NA
Calcium	8500		11	3.5	mg/Kg	1		✱	6010B	Total/NA
Chromium	19	B	0.55	0.094	mg/Kg	1		✱	6010B	Total/NA
Cobalt	13		0.27	0.062	mg/Kg	1		✱	6010B	Total/NA
Copper	21		0.55	0.12	mg/Kg	1		✱	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

Client Sample ID: 1806V-60-B01 (1-2) (Continued)

Lab Sample ID: 500-120431-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	18000	B	11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	35		0.27	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	6900		5.5	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	630		0.55	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	26		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500	B	27	4.5	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.71		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	1600		55	7.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	24		0.27	0.080	mg/Kg	1	☼	6010B	Total/NA
Zinc	82	B	1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.25	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.067	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0022	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Lead	0.020		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	0.51		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.050	J B	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.16		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	1.3		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.061		0.021	0.011	mg/Kg	1	☼	7471B	Total/NA
pH	8.7		0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-120431-1	1806V-60-B04 (0-1)	Solid	11/18/16 11:00	11/18/16 15:45
500-120431-3	1806V-60-B02 (1-2)	Solid	11/18/16 11:30	11/18/16 15:45
500-120431-4	1806V-60-B01 (1-2)	Solid	11/18/16 12:00	11/18/16 15:45

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

Client Sample ID: 1806V-60-B04 (0-1)

Lab Sample ID: 500-120431-1

Date Collected: 11/18/16 11:00

Matrix: Solid

Date Received: 11/18/16 15:45

Percent Solids: 81.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0086	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Benzene	<0.0020		0.0020	0.00050	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Bromomethane	<0.0049		0.0049	0.0019	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
2-Butanone (MEK)	<0.0049		0.0049	0.0022	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Carbon tetrachloride	<0.0020		0.0020	0.00057	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Chlorobenzene	<0.0020		0.0020	0.00073	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Chloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
1,1-Dichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
1,1-Dichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00069	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Ethylbenzene	<0.0020		0.0020	0.00095	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0015	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00058	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Tetrachloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Toluene	<0.0020		0.0020	0.00050	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00088	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00069	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00066	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00085	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Trichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Vinyl acetate	<0.0049		0.0049	0.0017	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Vinyl chloride	<0.0020		0.0020	0.00087	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1
Xylenes, Total	<0.0040		0.0040	0.00063	mg/Kg	☼	11/19/16 12:50	11/22/16 17:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 120	11/19/16 12:50	11/22/16 17:48	1
Dibromofluoromethane	113		75 - 120	11/19/16 12:50	11/22/16 17:48	1
1,2-Dichloroethane-d4 (Surr)	117		69 - 134	11/19/16 12:50	11/22/16 17:48	1
Toluene-d8 (Surr)	106		75 - 123	11/19/16 12:50	11/22/16 17:48	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	☼	11/23/16 19:30	11/26/16 19:30	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

Client Sample ID: 1806V-60-B04 (0-1)

Lab Sample ID: 500-120431-1

Date Collected: 11/18/16 11:00

Matrix: Solid

Date Received: 11/18/16 15:45

Percent Solids: 81.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
2,4-Dinitrophenol	<0.79	*	0.79	0.69	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Phenanthrene	0.0071	J	0.039	0.0054	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Fluoranthene	0.028	J	0.039	0.0073	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Pyrene	0.029	J	0.039	0.0078	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

Client Sample ID: 1806V-60-B04 (0-1)

Lab Sample ID: 500-120431-1

Date Collected: 11/18/16 11:00

Matrix: Solid

Date Received: 11/18/16 15:45

Percent Solids: 81.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Bis(2-ethylhexyl) phthalate	0.076	J	0.20	0.071	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Benzo[b]fluoranthene	0.043		0.039	0.0084	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Benzo[k]fluoranthene	0.013	J	0.039	0.012	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Benzo[a]pyrene	0.024	J	0.039	0.0076	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Indeno[1,2,3-cd]pyrene	0.014	J	0.039	0.010	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/23/16 19:30	11/26/16 19:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	85		40 - 130	11/23/16 19:30	11/26/16 19:30	1
Phenol-d5	86		36 - 123	11/23/16 19:30	11/26/16 19:30	1
Nitrobenzene-d5	91		33 - 124	11/23/16 19:30	11/26/16 19:30	1
2-Fluorobiphenyl	86		42 - 115	11/23/16 19:30	11/26/16 19:30	1
2,4,6-Tribromophenol	73		25 - 130	11/23/16 19:30	11/26/16 19:30	1
Terphenyl-d14	108		25 - 150	11/23/16 19:30	11/26/16 19:30	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.84	J	1.2	0.24	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Arsenic	6.9		0.58	0.27	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Barium	50		0.58	0.11	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Beryllium	0.61		0.23	0.050	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Boron	8.0		2.9	0.41	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Cadmium	0.24		0.12	0.034	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Calcium	68000		120	38	mg/Kg	☼	11/23/16 07:54	11/24/16 16:22	10
Chromium	17	B	0.58	0.10	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Cobalt	11		0.29	0.066	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Copper	21		0.58	0.13	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Iron	18000	B	12	4.5	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Lead	26		0.29	0.15	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Magnesium	21000		5.8	2.4	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Manganese	480		0.58	0.12	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Nickel	27		0.58	0.16	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Potassium	2000	B	29	4.8	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Selenium	0.37	J	0.58	0.29	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Sodium	1300		58	7.7	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Vanadium	22		0.29	0.085	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	1
Zinc	67	B	1.2	0.37	mg/Kg	☼	11/23/16 07:54	11/23/16 19:18	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	—	11/25/16 08:28	11/25/16 19:39	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	—	11/25/16 08:28	11/25/16 19:39	1
Boron	0.065	J	0.50	0.050	mg/L	—	11/25/16 08:28	11/25/16 19:39	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

Client Sample ID: 1806V-60-B04 (0-1)

Lab Sample ID: 500-120431-1

Date Collected: 11/18/16 11:00

Matrix: Solid

Date Received: 11/18/16 15:45

Percent Solids: 81.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0020	J	0.0050	0.0020	mg/L	—	11/25/16 08:28	11/25/16 19:39	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 19:39	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 19:39	1
Iron	<0.40		0.40	0.20	mg/L	—	11/25/16 08:28	11/25/16 19:39	1
Lead	0.16		0.0075	0.0075	mg/L	—	11/25/16 08:28	11/25/16 19:39	1
Manganese	0.088		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 19:39	1
Nickel	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 19:39	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/25/16 08:28	11/25/16 19:39	1
Silver	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 19:39	1
Zinc	0.029	J B	0.50	0.020	mg/L	—	11/25/16 08:28	11/25/16 19:39	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.16		0.0075	0.0075	mg/L	—	11/25/16 14:04	11/28/16 06:22	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	—	11/25/16 08:28	11/28/16 13:54	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/25/16 08:28	11/28/16 13:54	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	—	11/25/16 11:45	11/28/16 09:41	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032		0.018	0.0096	mg/Kg	☼	11/21/16 16:10	11/22/16 09:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.0		0.2	0.2	SU	—		11/22/16 14:48	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

Client Sample ID: 1806V-60-B02 (1-2)

Lab Sample ID: 500-120431-3

Date Collected: 11/18/16 11:30

Matrix: Solid

Date Received: 11/18/16 15:45

Percent Solids: 85.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0070	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Carbon disulfide	<0.0040		0.0040	0.00084	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
1,2-Dichloroethane	<0.0040		0.0040	0.0013	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Ethylbenzene	<0.0016		0.0016	0.00077	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
2-Hexanone	<0.0040		0.0040	0.0013	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
1,1,1,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Vinyl acetate	<0.0040		0.0040	0.0014	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Vinyl chloride	<0.0016		0.0016	0.00072	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1
Xylenes, Total	<0.0032		0.0032	0.00052	mg/Kg	☼	11/19/16 12:50	11/22/16 18:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 120	11/19/16 12:50	11/22/16 18:38	1
Dibromofluoromethane	116		75 - 120	11/19/16 12:50	11/22/16 18:38	1
1,2-Dichloroethane-d4 (Surr)	114		69 - 134	11/19/16 12:50	11/22/16 18:38	1
Toluene-d8 (Surr)	103		75 - 123	11/19/16 12:50	11/22/16 18:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.086	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

Client Sample ID: 1806V-60-B02 (1-2)

Lab Sample ID: 500-120431-3

Date Collected: 11/18/16 11:30

Matrix: Solid

Date Received: 11/18/16 15:45

Percent Solids: 85.1

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	0.046	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
2,4-Dinitrophenol	<0.78 *		0.78	0.68	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Phenanthrene	<0.038		0.038	0.0054	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Fluoranthene	<0.038		0.038	0.0072	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Pyrene	<0.038		0.038	0.0077	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Benzo[a]anthracene	<0.038		0.038	0.0052	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

Client Sample ID: 1806V-60-B02 (1-2)

Lab Sample ID: 500-120431-3

Date Collected: 11/18/16 11:30

Matrix: Solid

Date Received: 11/18/16 15:45

Percent Solids: 85.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.011	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Benzo[b]fluoranthene	<0.038		0.038	0.0083	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Benzo[a]pyrene	<0.038		0.038	0.0075	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0075	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	11/23/16 19:30	11/26/16 13:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	91		40 - 130	11/23/16 19:30	11/26/16 13:50	1
Phenol-d5	90		36 - 123	11/23/16 19:30	11/26/16 13:50	1
Nitrobenzene-d5	93		33 - 124	11/23/16 19:30	11/26/16 13:50	1
2-Fluorobiphenyl	81		42 - 115	11/23/16 19:30	11/26/16 13:50	1
2,4,6-Tribromophenol	68		25 - 130	11/23/16 19:30	11/26/16 13:50	1
Terphenyl-d14	97		25 - 150	11/23/16 19:30	11/26/16 13:50	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.72	J	1.2	0.24	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Arsenic	6.6		0.58	0.27	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Barium	47		0.58	0.11	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Beryllium	0.69		0.23	0.050	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Boron	9.1		2.9	0.40	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Cadmium	0.13		0.12	0.033	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Calcium	71000		120	37	mg/Kg	☼	11/23/16 07:54	11/24/16 16:36	10
Chromium	18	B	0.58	0.099	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Cobalt	9.8		0.29	0.065	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Copper	23		0.58	0.13	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Iron	20000	B	12	4.5	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Lead	14		0.29	0.14	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Magnesium	27000		5.8	2.3	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Manganese	330		0.58	0.11	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Nickel	28		0.58	0.16	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Potassium	2100	B	29	4.7	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Selenium	<0.58		0.58	0.29	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Sodium	1000		58	7.6	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Thallium	<0.58		0.58	0.28	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Vanadium	23		0.29	0.084	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1
Zinc	54	B	1.2	0.37	mg/Kg	☼	11/23/16 07:54	11/23/16 19:28	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.35	J	0.50	0.050	mg/L	☼	11/25/16 08:28	11/25/16 20:03	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	☼	11/25/16 08:28	11/25/16 20:03	1
Boron	0.060	J	0.50	0.050	mg/L	☼	11/25/16 08:28	11/25/16 20:03	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

Client Sample ID: 1806V-60-B02 (1-2)

Lab Sample ID: 500-120431-3

Date Collected: 11/18/16 11:30

Matrix: Solid

Date Received: 11/18/16 15:45

Percent Solids: 85.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0044	J	0.0050	0.0020	mg/L	—	11/25/16 08:28	11/25/16 20:03	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:03	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:03	1
Iron	<0.40		0.40	0.20	mg/L	—	11/25/16 08:28	11/25/16 20:03	1
Lead	0.011		0.0075	0.0075	mg/L	—	11/25/16 08:28	11/25/16 20:03	1
Manganese	0.77		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:03	1
Nickel	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:03	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/25/16 08:28	11/25/16 20:03	1
Silver	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:03	1
Zinc	0.022	J B	0.50	0.020	mg/L	—	11/25/16 08:28	11/25/16 20:03	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.087		0.0075	0.0075	mg/L	—	11/25/16 14:04	11/28/16 06:51	1
Manganese	0.84		0.025	0.010	mg/L	—	11/25/16 14:04	11/28/16 06:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	—	11/25/16 08:28	11/28/16 14:11	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/25/16 08:28	11/28/16 14:11	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	—	11/25/16 11:45	11/28/16 09:47	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020		0.019	0.010	mg/Kg	☼	11/21/16 16:10	11/22/16 10:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.9		0.2	0.2	SU	—		11/22/16 14:59	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

Client Sample ID: 1806V-60-B01 (1-2)

Lab Sample ID: 500-120431-4

Date Collected: 11/18/16 12:00

Matrix: Solid

Date Received: 11/18/16 15:45

Percent Solids: 78.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.022		0.022	0.0095	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Benzene	<0.0022		0.0022	0.00055	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Bromodichloromethane	<0.0022		0.0022	0.00044	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Bromoform	<0.0022		0.0022	0.00063	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Bromomethane	<0.0054		0.0054	0.0021	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
2-Butanone (MEK)	<0.0054		0.0054	0.0024	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Carbon disulfide	<0.0054		0.0054	0.0011	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Carbon tetrachloride	<0.0022		0.0022	0.00063	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Chlorobenzene	<0.0022		0.0022	0.00080	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Chloroethane	<0.0054		0.0054	0.0016	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Chloroform	<0.0022		0.0022	0.00075	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Chloromethane	<0.0054		0.0054	0.0022	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
cis-1,2-Dichloroethene	<0.0022		0.0022	0.00061	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
cis-1,3-Dichloropropene	<0.0022		0.0022	0.00065	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Dibromochloromethane	<0.0022		0.0022	0.00071	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
1,1-Dichloroethane	<0.0022		0.0022	0.00074	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
1,2-Dichloroethane	<0.0054		0.0054	0.0017	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
1,1-Dichloroethene	<0.0022		0.0022	0.00075	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
1,2-Dichloropropane	<0.0022		0.0022	0.00056	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
1,3-Dichloropropene, Total	<0.0022		0.0022	0.00076	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Ethylbenzene	<0.0022		0.0022	0.0010	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
2-Hexanone	<0.0054		0.0054	0.0017	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Methylene Chloride	<0.0054		0.0054	0.0021	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
4-Methyl-2-pentanone (MIBK)	<0.0054		0.0054	0.0016	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Methyl tert-butyl ether	<0.0022		0.0022	0.00064	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Styrene	<0.0022		0.0022	0.00066	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
1,1,1,2-Tetrachloroethane	<0.0022		0.0022	0.00069	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Tetrachloroethene	<0.0022		0.0022	0.00074	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Toluene	<0.0022		0.0022	0.00055	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
trans-1,2-Dichloroethene	<0.0022		0.0022	0.00096	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
trans-1,3-Dichloropropene	<0.0022		0.0022	0.00076	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
1,1,1-Trichloroethane	<0.0022		0.0022	0.00073	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
1,1,2-Trichloroethane	<0.0022		0.0022	0.00093	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Trichloroethene	<0.0022		0.0022	0.00073	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Vinyl acetate	<0.0054		0.0054	0.0019	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Vinyl chloride	<0.0022		0.0022	0.00096	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1
Xylenes, Total	<0.0043		0.0043	0.00069	mg/Kg	☼	11/19/16 12:50	11/22/16 19:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 120	11/19/16 12:50	11/22/16 19:03	1
Dibromofluoromethane	111		75 - 120	11/19/16 12:50	11/22/16 19:03	1
1,2-Dichloroethane-d4 (Surr)	110		69 - 134	11/19/16 12:50	11/22/16 19:03	1
Toluene-d8 (Surr)	108		75 - 123	11/19/16 12:50	11/22/16 19:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.094	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.063	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
1,3-Dichlorobenzene	<0.21		0.21	0.048	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
1,4-Dichlorobenzene	<0.21		0.21	0.054	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

Client Sample ID: 1806V-60-B01 (1-2)

Lab Sample ID: 500-120431-4

Date Collected: 11/18/16 12:00

Matrix: Solid

Date Received: 11/18/16 15:45

Percent Solids: 78.3

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	☼	11/23/16 19:30	11/26/16 18:33	1
2-Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.049	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
N-Nitrosodi-n-propylamine	<0.085		0.085	0.052	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Hexachloroethane	<0.21		0.21	0.064	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
2-Chlorophenol	<0.21		0.21	0.072	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Nitrobenzene	<0.042		0.042	0.011	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.043	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Isophorone	<0.21		0.21	0.047	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
2,4-Dimethylphenol	<0.42		0.42	0.16	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Hexachlorobutadiene	<0.21		0.21	0.066	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Naphthalene	<0.042		0.042	0.0065	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
2,4-Dichlorophenol	<0.42		0.42	0.10	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
4-Chloroaniline	<0.85		0.85	0.20	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
2,4,6-Trichlorophenol	<0.42		0.42	0.15	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
2,4,5-Trichlorophenol	<0.42		0.42	0.096	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Hexachlorocyclopentadiene	<0.85		0.85	0.24	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
2-Methylnaphthalene	<0.085		0.085	0.0078	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
2-Nitroaniline	<0.21		0.21	0.057	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
2-Chloronaphthalene	<0.21		0.21	0.047	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
4-Chloro-3-methylphenol	<0.42		0.42	0.14	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
2,6-Dinitrotoluene	<0.21		0.21	0.083	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
2-Nitrophenol	<0.42		0.42	0.10	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
3-Nitroaniline	<0.42		0.42	0.13	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Dimethyl phthalate	<0.21		0.21	0.055	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
2,4-Dinitrophenol	<0.85	*	0.85	0.74	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Acenaphthylene	<0.042		0.042	0.0056	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
2,4-Dinitrotoluene	<0.21		0.21	0.067	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Acenaphthene	<0.042		0.042	0.0076	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Dibenzofuran	<0.21		0.21	0.050	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
4-Nitrophenol	<0.85		0.85	0.40	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Fluorene	<0.042		0.042	0.0059	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
4-Nitroaniline	<0.42		0.42	0.18	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.056	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Hexachlorobenzene	<0.085		0.085	0.0098	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Diethyl phthalate	<0.21		0.21	0.072	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.049	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Pentachlorophenol	<0.85		0.85	0.68	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
N-Nitrosodiphenylamine	<0.21		0.21	0.050	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
4,6-Dinitro-2-methylphenol	<0.85		0.85	0.34	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Phenanthrene	0.058		0.042	0.0059	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Anthracene	0.012	J	0.042	0.0071	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Carbazole	<0.21		0.21	0.11	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Di-n-butyl phthalate	<0.21		0.21	0.064	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Fluoranthene	0.11		0.042	0.0078	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Pyrene	0.095		0.042	0.0084	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Butyl benzyl phthalate	<0.21		0.21	0.080	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Benzo[a]anthracene	0.048		0.042	0.0057	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

Client Sample ID: 1806V-60-B01 (1-2)

Lab Sample ID: 500-120431-4

Date Collected: 11/18/16 12:00

Matrix: Solid

Date Received: 11/18/16 15:45

Percent Solids: 78.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.060		0.042	0.012	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.059	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.077	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Di-n-octyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Benzo[b]fluoranthene	0.095		0.042	0.0091	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Benzo[k]fluoranthene	0.036 J		0.042	0.012	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Benzo[a]pyrene	0.061		0.042	0.0082	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Indeno[1,2,3-cd]pyrene	0.035 J		0.042	0.011	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Dibenz(a,h)anthracene	<0.042		0.042	0.0082	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
Benzo[g,h,i]perylene	0.035 J		0.042	0.014	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1
3 & 4 Methylphenol	<0.21		0.21	0.071	mg/Kg	☼	11/23/16 19:30	11/26/16 18:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	93		40 - 130	11/23/16 19:30	11/26/16 18:33	1
Phenol-d5	90		36 - 123	11/23/16 19:30	11/26/16 18:33	1
Nitrobenzene-d5	95		33 - 124	11/23/16 19:30	11/26/16 18:33	1
2-Fluorobiphenyl	86		42 - 115	11/23/16 19:30	11/26/16 18:33	1
2,4,6-Tribromophenol	57		25 - 130	11/23/16 19:30	11/26/16 18:33	1
Terphenyl-d14	101		25 - 150	11/23/16 19:30	11/26/16 18:33	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.54 J		1.1	0.23	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Arsenic	5.4		0.55	0.25	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Barium	71		0.55	0.10	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Beryllium	0.70		0.22	0.047	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Boron	4.8		2.7	0.38	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Cadmium	0.31		0.11	0.032	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Calcium	8500		11	3.5	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Chromium	19 B		0.55	0.094	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Cobalt	13		0.27	0.062	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Copper	21		0.55	0.12	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Iron	18000 B		11	4.2	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Lead	35		0.27	0.14	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Magnesium	6900		5.5	2.2	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Manganese	630		0.55	0.11	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Nickel	26		0.55	0.15	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Potassium	1500 B		27	4.5	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Selenium	0.71		0.55	0.27	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Silver	<0.27		0.27	0.064	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Sodium	1600		55	7.2	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Vanadium	24		0.27	0.080	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1
Zinc	82 B		1.1	0.35	mg/Kg	☼	11/23/16 07:54	11/23/16 19:32	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.25 J		0.50	0.050	mg/L	☼	11/25/16 08:28	11/25/16 20:08	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	☼	11/25/16 08:28	11/25/16 20:08	1
Boron	0.067 J		0.50	0.050	mg/L	☼	11/25/16 08:28	11/25/16 20:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

Client Sample ID: 1806V-60-B01 (1-2)

Lab Sample ID: 500-120431-4

Date Collected: 11/18/16 12:00

Matrix: Solid

Date Received: 11/18/16 15:45

Percent Solids: 78.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0022	J	0.0050	0.0020	mg/L	—	11/25/16 08:28	11/25/16 20:08	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:08	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:08	1
Iron	<0.40		0.40	0.20	mg/L	—	11/25/16 08:28	11/25/16 20:08	1
Lead	0.020		0.0075	0.0075	mg/L	—	11/25/16 08:28	11/25/16 20:08	1
Manganese	0.51		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:08	1
Nickel	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:08	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/25/16 08:28	11/25/16 20:08	1
Silver	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:08	1
Zinc	0.050	J B	0.50	0.020	mg/L	—	11/25/16 08:28	11/25/16 20:08	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.16		0.0075	0.0075	mg/L	—	11/25/16 14:04	11/28/16 06:58	1
Manganese	1.3		0.025	0.010	mg/L	—	11/25/16 14:04	11/28/16 06:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	—	11/25/16 08:28	11/28/16 14:14	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/25/16 08:28	11/28/16 14:14	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	—	11/25/16 11:45	11/28/16 09:49	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.061		0.021	0.011	mg/Kg	☼	11/21/16 16:10	11/22/16 10:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.7		0.2	0.2	SU	—		11/22/16 15:04	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

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.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-1

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 ENVIRONM

2417 Bond Street, University P
Phone: 708.534.5200 Fax:



500-120431 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 #: 500-120431
Chain of Custody Number: _____
Page _____ of _____
Temperature °C of Cooler: 4.3

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
Project Name		Lab Project #		Sampling		# of Containers		Matrix		Comments	
Project Location/State		Lab PM		Date		Time		Matrix		Comments	
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix					
1		1806V60-B0C(1-1)	11/18	11:00	5	S	VOC	5000	PH	Metals	TCID
2		1806V60-B0C(1-2)	11/18	11:15	5	S	VOC	5000	PH	Metals	TCID
3		1806V60-B0C(1-3)	11/18	11:30	5	S	VOC	5000	PH	Metals	TCID
4		1806V60-B0C(1-4)	11/18	12:00	5	S	VOC	5000	PH	Metals	TCID

Turnaround Time Required (Business Days)

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

Sample Disposal

☐ Return to Client

☐ Disposal by Lab

☐ Archive for ___ Months

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

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
<i>[Signature]</i>	EDI	11/18/16	14:00	<i>[Signature]</i>	TA	11/18/16	15:45
<i>[Signature]</i>	TA	11/18/16	15:45	<i>[Signature]</i>	TA	11/18/16	15:45

Lab Courier: _____
Shipped: _____
Hand Delivered: _____

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

Client Comments: _____
Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-120431-1

Login Number: 120431

List Number: 1

Creator: James, Jeff A

List Source: TestAmerica Chicago

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	4.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-120488-2

Client Project/Site: IDOT - IL 131 - WO 020

For:

Ecology and Environment, Inc.

33 West Monroe St.

Suite 1410

Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:

11/30/2016 4:26:52 PM

Jodie Bracken, Project Management Assistant II

jodie.bracken@testamericainc.com

Designee for

Richard Wright, Senior Project Manager

(708)534-5200

richard.wright@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

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

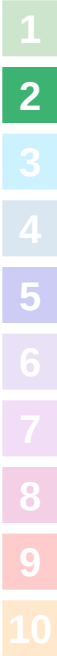


Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	10
Client Sample Results	11
Definitions	39
Certification Summary	40
Chain of Custody	41
Receipt Checklists	42

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

Job ID: 500-120488-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-120488-2

Comments

No additional comments.

Receipt

The samples were received on 11/21/2016 3:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 5.2° C and 5.7° 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 batch 500-362489 had 2 analytes outside control limits: 2,4-Dinitrophenol and Carbazole. These results have been reported and qualified. (LCS 500-362489/2-A)

Method(s) 8270D: The following samples contained one acid surrogate outside acceptance limits: 1806V-60-B09 (1-2) (500-120488-6), 1806V-60-B08 (4-6) (500-120488-8) and (500-120488-E-14-E). 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 - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

Client Sample ID: 1806V-60-B05 (1-2)

Lab Sample ID: 500-120488-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.016	J	0.038	0.0054	mg/Kg	1	✱	8270D	Total/NA
Fluoranthene	0.041		0.038	0.0072	mg/Kg	1	✱	8270D	Total/NA
Pyrene	0.037	J	0.038	0.0077	mg/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	0.021	J	0.038	0.0052	mg/Kg	1	✱	8270D	Total/NA
Chrysene	0.030	J	0.038	0.011	mg/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	0.040		0.038	0.0084	mg/Kg	1	✱	8270D	Total/NA
Benzo[k]fluoranthene	0.038		0.038	0.011	mg/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	0.025	J	0.038	0.0075	mg/Kg	1	✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.020	J	0.038	0.010	mg/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	0.024	J	0.038	0.012	mg/Kg	1	✱	8270D	Total/NA
Antimony	0.30	J	1.1	0.24	mg/Kg	1	✱	6010B	Total/NA
Arsenic	6.0		0.57	0.27	mg/Kg	1	✱	6010B	Total/NA
Barium	55		0.57	0.11	mg/Kg	1	✱	6010B	Total/NA
Beryllium	0.62		0.23	0.050	mg/Kg	1	✱	6010B	Total/NA
Boron	3.5		2.9	0.40	mg/Kg	1	✱	6010B	Total/NA
Cadmium	0.29		0.11	0.033	mg/Kg	1	✱	6010B	Total/NA
Calcium	19000		11	3.7	mg/Kg	1	✱	6010B	Total/NA
Chromium	17	B	0.57	0.099	mg/Kg	1	✱	6010B	Total/NA
Cobalt	11		0.29	0.065	mg/Kg	1	✱	6010B	Total/NA
Copper	18		0.57	0.12	mg/Kg	1	✱	6010B	Total/NA
Iron	17000		11	4.4	mg/Kg	1	✱	6010B	Total/NA
Lead	45		0.29	0.14	mg/Kg	1	✱	6010B	Total/NA
Magnesium	13000		5.7	2.3	mg/Kg	1	✱	6010B	Total/NA
Manganese	510		0.57	0.11	mg/Kg	1	✱	6010B	Total/NA
Nickel	21		0.57	0.16	mg/Kg	1	✱	6010B	Total/NA
Potassium	1200		29	4.7	mg/Kg	1	✱	6010B	Total/NA
Selenium	0.82		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	68	B	1.1	0.36	mg/Kg	1	✱	6010B	Total/NA
Barium	0.28	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.37	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0022	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.073	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.81		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.033		0.019	0.010	mg/Kg	1	✱	7471B	Total/NA
pH	8.6		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 1806V-60-B06 (1-2)

Lab Sample ID: 500-120488-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.0082	J	0.039	0.0072	mg/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	0.0098	J	0.039	0.0084	mg/Kg	1	✱	8270D	Total/NA
Antimony	0.36	J	1.2	0.25	mg/Kg	1	✱	6010B	Total/NA
Arsenic	8.2		0.60	0.28	mg/Kg	1	✱	6010B	Total/NA
Barium	58		0.60	0.11	mg/Kg	1	✱	6010B	Total/NA
Beryllium	0.90		0.24	0.052	mg/Kg	1	✱	6010B	Total/NA
Boron	4.1		3.0	0.42	mg/Kg	1	✱	6010B	Total/NA
Cadmium	0.16		0.12	0.035	mg/Kg	1	✱	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

Client Sample ID: 1806V-60-B06 (1-2) (Continued)

Lab Sample ID: 500-120488-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	2200		12	3.8	mg/Kg	1	✱	6010B	Total/NA
Chromium	26	B	0.60	0.10	mg/Kg	1	✱	6010B	Total/NA
Cobalt	17		0.30	0.067	mg/Kg	1	✱	6010B	Total/NA
Copper	26		0.60	0.13	mg/Kg	1	✱	6010B	Total/NA
Iron	27000		12	4.6	mg/Kg	1	✱	6010B	Total/NA
Lead	21		0.30	0.15	mg/Kg	1	✱	6010B	Total/NA
Magnesium	5400		6.0	2.4	mg/Kg	1	✱	6010B	Total/NA
Manganese	590		0.60	0.12	mg/Kg	1	✱	6010B	Total/NA
Nickel	36		0.60	0.16	mg/Kg	1	✱	6010B	Total/NA
Potassium	1800		30	4.9	mg/Kg	1	✱	6010B	Total/NA
Selenium	0.82		0.60	0.30	mg/Kg	1	✱	6010B	Total/NA
Sodium	1400		60	7.9	mg/Kg	1	✱	6010B	Total/NA
Vanadium	27		0.30	0.087	mg/Kg	1	✱	6010B	Total/NA
Zinc	71	B	1.2	0.38	mg/Kg	1	✱	6010B	Total/NA
Barium	0.13	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.37	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.39	J	0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.56		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.022	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.41		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.045		0.018	0.0096	mg/Kg	1	✱	7471B	Total/NA
pH	8.4		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 1806V-60-B07 (1-2)

Lab Sample ID: 500-120488-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.047		0.042	0.0058	mg/Kg	1	✱	8270D	Total/NA
Anthracene	0.012	J	0.042	0.0070	mg/Kg	1	✱	8270D	Total/NA
Fluoranthene	0.10		0.042	0.0078	mg/Kg	1	✱	8270D	Total/NA
Pyrene	0.087		0.042	0.0083	mg/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	0.054		0.042	0.0056	mg/Kg	1	✱	8270D	Total/NA
Chrysene	0.069		0.042	0.011	mg/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	0.091		0.042	0.0090	mg/Kg	1	✱	8270D	Total/NA
Benzo[k]fluoranthene	0.037	J	0.042	0.012	mg/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	0.058		0.042	0.0081	mg/Kg	1	✱	8270D	Total/NA
Dibenz(a,h)anthracene	0.011	J	0.042	0.0081	mg/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	0.038	J	0.042	0.013	mg/Kg	1	✱	8270D	Total/NA
Antimony	0.31	J	1.2	0.25	mg/Kg	1	✱	6010B	Total/NA
Arsenic	6.6		0.60	0.28	mg/Kg	1	✱	6010B	Total/NA
Barium	75		0.60	0.11	mg/Kg	1	✱	6010B	Total/NA
Beryllium	0.82		0.24	0.052	mg/Kg	1	✱	6010B	Total/NA
Boron	4.5		3.0	0.42	mg/Kg	1	✱	6010B	Total/NA
Cadmium	0.23		0.12	0.035	mg/Kg	1	✱	6010B	Total/NA
Calcium	4900		12	3.9	mg/Kg	1	✱	6010B	Total/NA
Chromium	22	B	0.60	0.10	mg/Kg	1	✱	6010B	Total/NA
Cobalt	19		0.30	0.068	mg/Kg	1	✱	6010B	Total/NA
Copper	21		0.60	0.13	mg/Kg	1	✱	6010B	Total/NA
Iron	21000		12	4.6	mg/Kg	1	✱	6010B	Total/NA
Lead	28		0.30	0.15	mg/Kg	1	✱	6010B	Total/NA
Magnesium	5600		6.0	2.4	mg/Kg	1	✱	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

Client Sample ID: 1806V-60-B07 (1-2) (Continued)

Lab Sample ID: 500-120488-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	730		0.60	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	31		0.60	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1700		30	4.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.59	J	0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Sodium	1100		60	7.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	26		0.30	0.087	mg/Kg	1	☼	6010B	Total/NA
Zinc	78	B	1.2	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	0.22	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.46	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.20	J	0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.32		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.084	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.79		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.036		0.021	0.011	mg/Kg	1	☼	7471B	Total/NA
pH	8.3		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 1806V-60-B09 (1-2)

Lab Sample ID: 500-120488-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0094	J	0.041	0.0054	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.12		0.041	0.0057	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.028	J	0.041	0.0068	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.22		0.041	0.0076	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.19		0.041	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.11		0.041	0.0055	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.12		0.041	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.17		0.041	0.0088	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.054		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	0.062		0.041	0.011	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.018	J	0.041	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.057		0.041	0.013	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.56	J	1.2	0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.1		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	72		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.63		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	3.8		2.9	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.38		0.12	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	18000		12	3.7	mg/Kg	1	☼	6010B	Total/NA
Chromium	16	B	0.58	0.099	mg/Kg	1	☼	6010B	Total/NA
Cobalt	16		0.29	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	21		0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	18000		12	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	67		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	12000		5.8	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	930		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	23		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.79		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	820		58	7.6	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

Client Sample ID: 1806V-60-B09 (1-2) (Continued)

Lab Sample ID: 500-120488-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	22		0.29	0.084	mg/Kg	1	☼	6010B	Total/NA
Zinc	87	B	1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.29	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.44	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0020	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.89		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.093	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.74		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.030		0.020	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.4		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 1806V-60-B10 (0-1)

Lab Sample ID: 500-120488-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0059	J	0.040	0.0053	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.010	J	0.040	0.0072	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.018	J	0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.18		0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.039	J	0.040	0.0067	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.27		0.040	0.0075	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.24		0.040	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.12		0.040	0.0054	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.18		0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.59		0.20	0.073	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.28		0.040	0.0087	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.089		0.040	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.15		0.040	0.0078	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.081		0.040	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.023	J	0.040	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.082		0.040	0.013	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.39	J	1.2	0.25	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.4		0.59	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	65		0.59	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.72		0.24	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	4.7		3.0	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.30		0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	10000		12	3.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	21	B	0.59	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.30	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	23		0.59	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	18000		12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	30		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	8000		5.9	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	390		0.59	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	27		0.59	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1700		30	4.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.53	J	0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	760		59	7.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		0.30	0.086	mg/Kg	1	☼	6010B	Total/NA
Zinc	88	B	1.2	0.37	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

Client Sample ID: 1806V-60-B10 (0-1) (Continued)

Lab Sample ID: 500-120488-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.32	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.51		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0020	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.52		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.077	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.81		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.050		0.019	0.0099	mg/Kg	1	☆	7471B	Total/NA
pH	8.3		0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-120488-3	1806V-60-B05 (1-2)	Solid	11/21/16 10:30	11/21/16 15:45
500-120488-4	1806V-60-B06 (1-2)	Solid	11/21/16 10:40	11/21/16 15:45
500-120488-7	1806V-60-B10 (0-1)	Solid	11/21/16 11:00	11/21/16 15:45

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

Client Sample ID: 1806V-60-B05 (1-2)

Lab Sample ID: 500-120488-3

Date Collected: 11/21/16 10:30

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 82.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0081	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Benzene	<0.0019		0.0019	0.00047	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Bromodichloromethane	<0.0019		0.0019	0.00038	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Bromoform	<0.0019		0.0019	0.00054	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Bromomethane	<0.0046		0.0046	0.0018	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
2-Butanone (MEK)	<0.0046		0.0046	0.0021	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Carbon disulfide	<0.0046		0.0046	0.00097	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Carbon tetrachloride	<0.0019		0.0019	0.00054	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Chlorobenzene	<0.0019		0.0019	0.00069	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Chloroform	<0.0019		0.0019	0.00065	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Chloromethane	<0.0046		0.0046	0.0019	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00052	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00056	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Dibromochloromethane	<0.0019		0.0019	0.00061	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
1,1-Dichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
1,2-Dichloroethane	<0.0046		0.0046	0.0015	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
1,1-Dichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
1,2-Dichloropropane	<0.0019		0.0019	0.00048	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00065	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Ethylbenzene	<0.0019		0.0019	0.00089	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
2-Hexanone	<0.0046		0.0046	0.0015	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00055	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Styrene	<0.0019		0.0019	0.00056	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00059	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Tetrachloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Toluene	<0.0019		0.0019	0.00047	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00082	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00065	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00080	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Trichloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Vinyl acetate	<0.0046		0.0046	0.0016	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Vinyl chloride	<0.0019		0.0019	0.00082	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1
Xylenes, Total	<0.0037		0.0037	0.00060	mg/Kg	☼	11/21/16 17:05	11/25/16 20:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 120	11/21/16 17:05	11/25/16 20:35	1
Dibromofluoromethane	101		75 - 120	11/21/16 17:05	11/25/16 20:35	1
1,2-Dichloroethane-d4 (Surr)	91		69 - 134	11/21/16 17:05	11/25/16 20:35	1
Toluene-d8 (Surr)	109		75 - 123	11/21/16 17:05	11/25/16 20:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.086	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
1,3-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

Client Sample ID: 1806V-60-B05 (1-2)

Lab Sample ID: 500-120488-3

Date Collected: 11/21/16 10:30

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 82.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Nitrobenzene	<0.038		0.038	0.0097	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.040	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Isophorone	<0.19		0.19	0.044	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Naphthalene	<0.038		0.038	0.0060	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
2-Nitrophenol	<0.38		0.38	0.092	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Dimethyl phthalate	<0.19		0.19	0.051	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
2,4-Dinitrophenol	<0.78	*	0.78	0.68	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
2,4-Dinitrotoluene	<0.19		0.19	0.062	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Acenaphthene	<0.038		0.038	0.0070	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Diethyl phthalate	<0.19		0.19	0.066	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Phenanthrene	0.016	J	0.038	0.0054	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Anthracene	<0.038		0.038	0.0065	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Carbazole	<0.19	*	0.19	0.097	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Fluoranthene	0.041		0.038	0.0072	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Pyrene	0.037	J	0.038	0.0077	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Butyl benzyl phthalate	<0.19		0.19	0.074	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Benzo[a]anthracene	0.021	J	0.038	0.0052	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

Client Sample ID: 1806V-60-B05 (1-2)

Lab Sample ID: 500-120488-3

Date Collected: 11/21/16 10:30

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 82.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.030	J	0.038	0.011	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Benzo[b]fluoranthene	0.040		0.038	0.0084	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Benzo[k]fluoranthene	0.038		0.038	0.011	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Benzo[a]pyrene	0.025	J	0.038	0.0075	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Indeno[1,2,3-cd]pyrene	0.020	J	0.038	0.010	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0075	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
Benzo[g,h,i]perylene	0.024	J	0.038	0.012	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1
3 & 4 Methylphenol	<0.19		0.19	0.065	mg/Kg	☼	11/27/16 10:14	11/28/16 11:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	98		40 - 130	11/27/16 10:14	11/28/16 11:56	1
Phenol-d5	87		36 - 123	11/27/16 10:14	11/28/16 11:56	1
Nitrobenzene-d5	91		33 - 124	11/27/16 10:14	11/28/16 11:56	1
2-Fluorobiphenyl	88		42 - 115	11/27/16 10:14	11/28/16 11:56	1
2,4,6-Tribromophenol	117		25 - 130	11/27/16 10:14	11/28/16 11:56	1
Terphenyl-d14	118		25 - 150	11/27/16 10:14	11/28/16 11:56	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.30	J	1.1	0.24	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Arsenic	6.0		0.57	0.27	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Barium	55		0.57	0.11	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Beryllium	0.62		0.23	0.050	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Boron	3.5		2.9	0.40	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Cadmium	0.29		0.11	0.033	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Calcium	19000		11	3.7	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Chromium	17	B	0.57	0.099	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Cobalt	11		0.29	0.065	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Copper	18		0.57	0.12	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Iron	17000		11	4.4	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Lead	45		0.29	0.14	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Magnesium	13000		5.7	2.3	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Manganese	510		0.57	0.11	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Nickel	21		0.57	0.16	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Potassium	1200		29	4.7	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Selenium	0.82		0.57	0.28	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Silver	<0.29		0.29	0.067	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Sodium	990		57	7.6	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Vanadium	21		0.29	0.084	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1
Zinc	68	B	1.1	0.36	mg/Kg	☼	11/25/16 15:29	11/28/16 14:54	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.28	J	0.50	0.050	mg/L	☼	11/27/16 11:56	11/27/16 22:49	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	☼	11/27/16 11:56	11/27/16 22:49	1
Boron	0.37	J	0.50	0.050	mg/L	☼	11/27/16 11:56	11/27/16 22:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

Client Sample ID: 1806V-60-B05 (1-2)

Lab Sample ID: 500-120488-3

Date Collected: 11/21/16 10:30

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 82.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0022	J	0.0050	0.0020	mg/L	—	11/27/16 11:56	11/27/16 22:49	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 22:49	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 22:49	1
Iron	<0.40		0.40	0.20	mg/L	—	11/27/16 11:56	11/27/16 22:49	1
Lead	<0.0075		0.0075	0.0075	mg/L	—	11/29/16 10:19	11/29/16 22:02	1
Manganese	1.2		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 22:49	1
Nickel	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 22:49	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/27/16 11:56	11/27/16 22:49	1
Silver	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 22:49	1
Zinc	0.073	J B	0.50	0.020	mg/L	—	11/27/16 11:56	11/27/16 22:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.81		0.025	0.010	mg/L	—	11/28/16 08:17	11/29/16 00:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	—	11/27/16 11:56	11/28/16 22:16	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/27/16 11:56	11/28/16 22:16	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	—	11/28/16 13:00	11/29/16 11:29	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.033		0.019	0.010	mg/Kg	☼	11/23/16 07:45	11/23/16 10:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.6		0.2	0.2	SU	—		11/23/16 16:34	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

Client Sample ID: 1806V-60-B06 (1-2)

Lab Sample ID: 500-120488-4

Date Collected: 11/21/16 10:40

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 81.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0078	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Carbon disulfide	<0.0045		0.0045	0.00093	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Ethylbenzene	<0.0018		0.0018	0.00086	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Vinyl acetate	<0.0045		0.0045	0.0016	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	11/21/16 17:05	11/28/16 15:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 120	11/21/16 17:05	11/28/16 15:54	1
Dibromofluoromethane	110		75 - 120	11/21/16 17:05	11/28/16 15:54	1
1,2-Dichloroethane-d4 (Surr)	108		69 - 134	11/21/16 17:05	11/28/16 15:54	1
Toluene-d8 (Surr)	110		75 - 123	11/21/16 17:05	11/28/16 15:54	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	☼	11/27/16 10:14	11/28/16 12:20	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

Client Sample ID: 1806V-60-B06 (1-2)

Lab Sample ID: 500-120488-4

Date Collected: 11/21/16 10:40

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 81.3

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	0.046	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
2-Methylphenol	<0.20		0.20	0.062	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.048	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
2-Chlorophenol	<0.20		0.20	0.066	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
2,4-Dichlorophenol	<0.39		0.39	0.092	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
2,6-Dinitrotoluene	<0.20		0.20	0.076	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
2,4-Dinitrophenol	<0.78	*	0.78	0.68	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.045	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Phenanthrene	<0.039		0.039	0.0054	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Carbazole	<0.20	*	0.20	0.097	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Fluoranthene	0.0082	J	0.039	0.0072	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Pyrene	<0.039		0.039	0.0077	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Benzo[a]anthracene	<0.039		0.039	0.0052	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

Client Sample ID: 1806V-60-B06 (1-2)

Lab Sample ID: 500-120488-4

Date Collected: 11/21/16 10:40

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 81.3

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	☼	11/27/16 10:14	11/28/16 12:20	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.054	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Di-n-octyl phthalate	<0.20		0.20	0.063	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Benzo[b]fluoranthene	0.0098	J	0.039	0.0084	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Benzo[a]pyrene	<0.039		0.039	0.0075	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/27/16 10:14	11/28/16 12:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	114		40 - 130	11/27/16 10:14	11/28/16 12:20	1
Phenol-d5	86		36 - 123	11/27/16 10:14	11/28/16 12:20	1
Nitrobenzene-d5	90		33 - 124	11/27/16 10:14	11/28/16 12:20	1
2-Fluorobiphenyl	89		42 - 115	11/27/16 10:14	11/28/16 12:20	1
2,4,6-Tribromophenol	81		25 - 130	11/27/16 10:14	11/28/16 12:20	1
Terphenyl-d14	111		25 - 150	11/27/16 10:14	11/28/16 12:20	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.36	J	1.2	0.25	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Arsenic	8.2		0.60	0.28	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Barium	58		0.60	0.11	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Beryllium	0.90		0.24	0.052	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Boron	4.1		3.0	0.42	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Cadmium	0.16		0.12	0.035	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Calcium	2200		12	3.8	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Chromium	26	B	0.60	0.10	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Cobalt	17		0.30	0.067	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Copper	26		0.60	0.13	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Iron	27000		12	4.6	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Lead	21		0.30	0.15	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Magnesium	5400		6.0	2.4	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Manganese	590		0.60	0.12	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Nickel	36		0.60	0.16	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Potassium	1800		30	4.9	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Selenium	0.82		0.60	0.30	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Sodium	1400		60	7.9	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Thallium	<0.60		0.60	0.29	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Vanadium	27		0.30	0.087	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1
Zinc	71	B	1.2	0.38	mg/Kg	☼	11/25/16 15:29	11/28/16 14:59	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.13	J	0.50	0.050	mg/L	☼	11/27/16 11:56	11/27/16 22:53	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	☼	11/27/16 11:56	11/27/16 22:53	1
Boron	0.37	J	0.50	0.050	mg/L	☼	11/27/16 11:56	11/27/16 22:53	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

Client Sample ID: 1806V-60-B06 (1-2)

Lab Sample ID: 500-120488-4

Date Collected: 11/21/16 10:40

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 81.3

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	—	11/27/16 11:56	11/27/16 22:53	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 22:53	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 22:53	1
Iron	0.39	J	0.40	0.20	mg/L	—	11/27/16 11:56	11/27/16 22:53	1
Lead	<0.0075		0.0075	0.0075	mg/L	—	11/27/16 11:56	11/27/16 22:53	1
Manganese	0.56		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 22:53	1
Nickel	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 22:53	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/27/16 11:56	11/27/16 22:53	1
Silver	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 22:53	1
Zinc	0.022	J B	0.50	0.020	mg/L	—	11/27/16 11:56	11/27/16 22:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.41		0.025	0.010	mg/L	—	11/28/16 08:17	11/29/16 00:42	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	—	11/27/16 11:56	11/28/16 22:26	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/27/16 11:56	11/28/16 22:26	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	—	11/28/16 13:00	11/29/16 11:30	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.045		0.018	0.0096	mg/Kg	☼	11/23/16 07:45	11/23/16 10:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.4		0.2	0.2	SU	—		11/23/16 16:39	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

Client Sample ID: 1806V-60-B10 (0-1)

Lab Sample ID: 500-120488-7

Date Collected: 11/21/16 11:00

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 79.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.026		0.026	0.011	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Benzene	<0.0026		0.0026	0.00065	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Bromodichloromethane	<0.0026		0.0026	0.00052	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Bromoform	<0.0026		0.0026	0.00075	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Bromomethane	<0.0064		0.0064	0.0024	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
2-Butanone (MEK)	<0.0064		0.0064	0.0028	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Carbon disulfide	<0.0064		0.0064	0.0013	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Carbon tetrachloride	<0.0026		0.0026	0.00074	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Chlorobenzene	<0.0026		0.0026	0.00094	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Chloroethane	<0.0064		0.0064	0.0019	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Chloroform	<0.0026		0.0026	0.00089	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Chloromethane	<0.0064		0.0064	0.0026	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
cis-1,2-Dichloroethene	<0.0026		0.0026	0.00071	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
cis-1,3-Dichloropropene	<0.0026		0.0026	0.00077	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Dibromochloromethane	<0.0026		0.0026	0.00083	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
1,1-Dichloroethane	<0.0026		0.0026	0.00087	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
1,2-Dichloroethane	<0.0064		0.0064	0.0020	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
1,1,1-Dichloroethene	<0.0026		0.0026	0.00088	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
1,2-Dichloropropane	<0.0026		0.0026	0.00066	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
1,3-Dichloropropene, Total	<0.0026		0.0026	0.00090	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Ethylbenzene	<0.0026		0.0026	0.0012	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
2-Hexanone	<0.0064		0.0064	0.0020	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Methylene Chloride	<0.0064		0.0064	0.0025	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
4-Methyl-2-pentanone (MIBK)	<0.0064		0.0064	0.0019	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Methyl tert-butyl ether	<0.0026		0.0026	0.00075	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Styrene	<0.0026		0.0026	0.00077	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
1,1,1,2-Tetrachloroethane	<0.0026		0.0026	0.00082	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Tetrachloroethene	<0.0026		0.0026	0.00087	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Toluene	<0.0026		0.0026	0.00064	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
trans-1,2-Dichloroethene	<0.0026		0.0026	0.0011	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
trans-1,3-Dichloropropene	<0.0026		0.0026	0.00090	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
1,1,1-Trichloroethane	<0.0026		0.0026	0.00086	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
1,1,2-Trichloroethane	<0.0026		0.0026	0.0011	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Trichloroethene	<0.0026		0.0026	0.00086	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Vinyl acetate	<0.0064		0.0064	0.0022	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Vinyl chloride	<0.0026		0.0026	0.0011	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1
Xylenes, Total	<0.0051		0.0051	0.00082	mg/Kg	☼	11/21/16 17:05	11/28/16 17:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 120	11/21/16 17:05	11/28/16 17:10	1
Dibromofluoromethane	112		75 - 120	11/21/16 17:05	11/28/16 17:10	1
1,2-Dichloroethane-d4 (Surr)	109		69 - 134	11/21/16 17:05	11/28/16 17:10	1
Toluene-d8 (Surr)	109		75 - 123	11/21/16 17:05	11/28/16 17:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.089	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

Client Sample ID: 1806V-60-B10 (0-1)

Lab Sample ID: 500-120488-7

Date Collected: 11/21/16 11:00

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 79.0

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	☼	11/27/16 10:14	11/28/16 14:44	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
2-Methylnaphthalene	<0.081		0.081	0.0074	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
2,4-Dinitrophenol	<0.81	*	0.81	0.71	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Acenaphthylene	0.0059	J	0.040	0.0053	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Acenaphthene	0.010	J	0.040	0.0072	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Fluorene	0.018	J	0.040	0.0056	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Phenanthrene	0.18		0.040	0.0056	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Anthracene	0.039	J	0.040	0.0067	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Carbazole	<0.20	*	0.20	0.10	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Fluoranthene	0.27		0.040	0.0075	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Pyrene	0.24		0.040	0.0080	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Benzo[a]anthracene	0.12		0.040	0.0054	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

Client Sample ID: 1806V-60-B10 (0-1)

Lab Sample ID: 500-120488-7

Date Collected: 11/21/16 11:00

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 79.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.18		0.040	0.011	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Bis(2-ethylhexyl) phthalate	0.59		0.20	0.073	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Benzo[b]fluoranthene	0.28		0.040	0.0087	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Benzo[k]fluoranthene	0.089		0.040	0.012	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Benzo[a]pyrene	0.15		0.040	0.0078	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Indeno[1,2,3-cd]pyrene	0.081		0.040	0.010	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Dibenz(a,h)anthracene	0.023 J		0.040	0.0078	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
Benzo[g,h,i]perylene	0.082		0.040	0.013	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	11/27/16 10:14	11/28/16 14:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	85		40 - 130	11/27/16 10:14	11/28/16 14:44	1
Phenol-d5	81		36 - 123	11/27/16 10:14	11/28/16 14:44	1
Nitrobenzene-d5	80		33 - 124	11/27/16 10:14	11/28/16 14:44	1
2-Fluorobiphenyl	83		42 - 115	11/27/16 10:14	11/28/16 14:44	1
2,4,6-Tribromophenol	121		25 - 130	11/27/16 10:14	11/28/16 14:44	1
Terphenyl-d14	120		25 - 150	11/27/16 10:14	11/28/16 14:44	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.39 J		1.2	0.25	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Arsenic	5.4		0.59	0.27	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Barium	65		0.59	0.11	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Beryllium	0.72		0.24	0.051	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Boron	4.7		3.0	0.41	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Cadmium	0.30		0.12	0.034	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Calcium	10000		12	3.8	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Chromium	21 B		0.59	0.10	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Cobalt	11		0.30	0.067	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Copper	23		0.59	0.13	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Iron	18000		12	4.6	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Lead	30		0.30	0.15	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Magnesium	8000		5.9	2.4	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Manganese	390		0.59	0.12	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Nickel	27		0.59	0.16	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Potassium	1700		30	4.8	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Selenium	0.53 J		0.59	0.29	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Silver	<0.30		0.30	0.069	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Sodium	760		59	7.8	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Vanadium	23		0.30	0.086	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1
Zinc	88 B		1.2	0.37	mg/Kg	☼	11/25/16 15:29	11/28/16 15:12	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.32 J		0.50	0.050	mg/L	☼	11/27/16 11:56	11/27/16 23:07	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	☼	11/27/16 11:56	11/27/16 23:07	1
Boron	0.51		0.50	0.050	mg/L	☼	11/27/16 11:56	11/27/16 23:07	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

Client Sample ID: 1806V-60-B10 (0-1)

Lab Sample ID: 500-120488-7

Date Collected: 11/21/16 11:00

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 79.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0020	J	0.0050	0.0020	mg/L	—	11/27/16 11:56	11/27/16 23:07	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:07	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:07	1
Iron	<0.40		0.40	0.20	mg/L	—	11/27/16 11:56	11/27/16 23:07	1
Lead	<0.0075		0.0075	0.0075	mg/L	—	11/27/16 11:56	11/27/16 23:07	1
Manganese	0.52		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:07	1
Nickel	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:07	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/27/16 11:56	11/27/16 23:07	1
Silver	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:07	1
Zinc	0.077	J B	0.50	0.020	mg/L	—	11/27/16 11:56	11/27/16 23:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.81		0.025	0.010	mg/L	—	11/28/16 08:17	11/29/16 01:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	—	11/27/16 11:56	11/28/16 22:36	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/27/16 11:56	11/28/16 22:36	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	—	11/28/16 13:00	11/29/16 11:37	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.050		0.019	0.0099	mg/Kg	☼	11/23/16 07:45	11/23/16 10:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.3		0.2	0.2	SU	—		11/23/16 16:51	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

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.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-2

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

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-120488-2

Login Number: 120488

List Source: TestAmerica Chicago

List Number: 1

Creator: James, Jeff A

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	5.7, 5.2
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 $<6\text{mm}$ (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: FAU 2711 (IL Route 131) Office Phone Number, if available: _____

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

40180 N. Kenosha Road (ISGS #1806V-61)

City: Beach Park State: IL Zip Code: 60099

County: Lake Township: Benton

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

Latitude: 42.44537 Longitude: -87.87583

(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: FAU 2711 (IL Route 131)Latitude: 42.44537 Longitude: -87.87583

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 1086V-61-B01, -B02, -B05, -B06, -B07, -B08 and -B09 were sampled within the construction zone adjacent to ISGS #1806V-61 (Cellular Tower). Refer to PSI Report for ISGS #1806V-61 (Cellular Tower) including Table 4-4, and Figure 4-3, 4-5, and 4-7.

- 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 J120540-4.

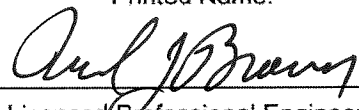
IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

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

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

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

Printed Name:



Licensed Professional Engineer or
Licensed Professional Geologist Signature:

2-1-2017

Date:



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

Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-228-14; WorkOrder #20

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

= pH is less than 6.25 or greater than 9.0 standard units.

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

r = Concentration exceeds a TACO Tier 1 RO for residential soil exposure.

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 applicable comparison criteria.

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-228-14; WorkOrder #20
CONTAMINANTS OF CONCERN

SITE	ISGS #1806V-61 (Cellular Tower)		Comparison Criteria					
BORING	1806V-61-B01	1806V-61-B02	MACs			TACO		
SAMPLE	1806V-61-B01 (0-3)	1806V-61-B02 (0-2)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil	Soil						
DEPTH (feet)	0-3	0-2						
pH	8.8	8.8						
VOCs (mg/kg)								
Acetone	0.029	0.02	25	--	--	70,000	100,000	--
SVOCs (mg/kg)								
Acenaphthylene	0.012 J	0.0059 J	--	--	--	--	--	--
Anthracene	0.0093 J	0.0073 J	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.046	0.039	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.055	0.048	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.091	0.083	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.033 J	0.032 J	--	--	--	--	--	--
Benzo(k)fluoranthene	0.045	0.029 J	9	--	--	1.7	1,700	--
Bis(2-ethylhexyl) phthalate	ND U	0.076 J	46	--	--	46	4,100	--
Chrysene	0.057	0.055	88	--	--	88	17,000	--
Fluoranthene	0.078	0.086	3100	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.031 J	0.032 J	0.9	1.6	0.9	1.6	170	--
Phenanthrene	0.027 J	0.041	--	--	--	--	--	--
Pyrene	0.072	0.081	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)								
Antimony	0.32 J	0.31 J	5	--	--	31	82	0.006
Arsenic	6.6	5.6	11.3	13	--	13	61	0.05
Barium	56	37	1,500	--	--	5,500	14,000	2
Beryllium	0.58	0.41	22	--	--	160	410	0.004
Boron	7.4	5.6	40	--	--	16,000	41,000	2
Cadmium	0.24	0.39	5.2	--	--	78	200	0.005
Calcium	52,000	100,000	--	--	--	--	--	--
Chromium	16	15	21	--	--	230	690	0.1
Cobalt	8.4	7.5	20	--	--	4,700	12,000	1
Copper	24	24	2,900	--	--	2,900	8,200	0.65
Iron	17,000 †m	14,000	15,000	15,900	--	--	--	5
Lead	49	93	107	--	--	400	700	0.0075
Magnesium	30,000	37,000	325,000	--	--	--	730,000	--
Manganese	460	560	630	636	--	1,600	4,100	0.15
Mercury	0.022	0.035	0.89	--	--	10	0.1	0.002
Nickel	19	14	100	--	--	1,600	4,100	0.1
Potassium	1,500	1,100	--	--	--	--	--	--
Sodium	2,700	1,900	--	--	--	--	--	--
Thallium	1.4	1.4	2.6	--	--	6.3	160	0.002
Vanadium	20	16	550	--	--	550	1,400	0.049
Zinc	61	88	5,100	--	--	23,000	61,000	5
TCLP Metals (mg/L)								
Barium	0.46 J	0.36 J	--	--	--	--	--	2
Boron	0.088 J	0.084 J	--	--	--	--	--	2
Cadmium	0.0021 J	ND U	--	--	--	--	--	0.005
Cobalt	0.044	ND U	--	--	--	--	--	1
Iron	0.26 J	ND U	--	--	--	--	--	5
Lead	0.037 L	ND U	--	--	--	--	--	0.0075
Manganese	9.8 L	0.31 L	--	--	--	--	--	0.15
Nickel	0.027	0.01 J	--	--	--	--	--	0.1
SPLP Metals (mg/L)								
Lead	0.51 L	NA	--	--	--	--	--	0.0075
Manganese	3.8 L	2.3 L	--	--	--	--	--	0.15

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-228-14; WorkOrder #20

CONTAMINANTS OF CONCERN

SITE			Comparison Criteria					
BORING	1806V-61-B05	1806V-61-B06	MACs			TACO		
SAMPLE	1806V-61-B05 (0-2)	1806V-61-B06 (0-4)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil	Soil						
DEPTH (feet)	0-2	0-4						
pH	8.2	8.5						
SVOCs (mg/kg)								
Fluoranthene	ND U	0.0075 J	3100	--	--	3,100	82,000	--
Inorganics (mg/kg)								
Antimony	0.31 J	0.41 J	5	--	--	31	82	0.006
Arsenic	7.2	9.3	11.3	13	--	13	61	0.05
Barium	69	46	1,500	--	--	5,500	14,000	2
Beryllium	0.63	0.64	22	--	--	160	410	0.004
Boron	2.4 J	5.6	40	--	--	16,000	41,000	2
Cadmium	0.11 J	0.13	5.2	--	--	78	200	0.005
Calcium	2,100	19,000	--	--	--	--	--	--
Chromium	17	18	21	--	--	230	690	0.1
Cobalt	12	14	20	--	--	4,700	12,000	1
Copper	14	23	2,900	--	--	2,900	8,200	0.65
Iron	20,000 †m	22,000 †m	15,000	15,900	--	--	--	5
Lead	14	20	107	--	--	400	700	0.0075
Magnesium	3,500	12,000	325,000	--	--	--	730,000	--
Manganese	730 †m	600	630	636	--	1,600	4,100	0.15
Mercury	0.032	0.029	0.89	--	--	10	0.1	0.002
Nickel	18	22	100	--	--	1,600	4,100	0.1
Potassium	950	1,700	--	--	--	--	--	--
Selenium	0.61	0.33 J	1.3	--	--	390	1,000	0.05
Sodium	95	96	--	--	--	--	--	--
Thallium	1.9	1.8	2.6	--	--	6.3	160	0.002
Vanadium	24	23	550	--	--	550	1,400	0.049
Zinc	38	51	5,100	--	--	23,000	61,000	5
TCLP Metals (mg/L)								
Barium	0.12 J	0.31 J	--	--	--	--	--	2
Boron	ND U	0.052 J	--	--	--	--	--	2
Manganese	0.02 J	0.12	--	--	--	--	--	0.15
SPLP Metals (mg/L)								

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-228-14; WorkOrder #20
CONTAMINANTS OF CONCERN

SITE	ISGS #1806V-61 (Cellular Tower)			Comparison Criteria					
BORING	1806V-61-B07	1806V-61-B08	1806V-61-B09	MACs			TACO		
SAMPLE	1806V-61-B07 (1-2)	1806V-61-B08 (2-4)	1806V-61-B09 (1-2)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil	Soil	Soil						
DEPTH (feet)	1-2	2-4	1-2						
pH	8	8.8	7.9						
VOCs (mg/kg)									
2-Butanone (MEK)	ND U	ND U	0.0077	--	--	--	--	--	--
Acetone	ND U	ND U	0.037	25	--	--	70,000	100,000	--
SVOCs (mg/kg)									
Benzo(a)anthracene	ND U	ND U	0.0054 J	0.9	1.8	1.1	1.8	170	--
Benzo(b)fluoranthene	ND U	ND U	0.012 J	0.9	2.1	1.5	2.1	170	--
Fluoranthene	ND U	ND U	0.01 J	3100	--	--	3,100	82,000	--
Pyrene	ND U	ND U	0.0087 J	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)									
Antimony	0.54 J	0.36 J	0.34 J	5	--	--	31	82	0.006
Arsenic	8.9	8.4	6.7	11.3	13	--	13	61	0.05
Barium	72	61	56	1,500	--	--	5,500	14,000	2
Beryllium	0.87	0.66	0.59	22	--	--	160	410	0.004
Boron	7	6.9	4.1	40	--	--	16,000	41,000	2
Cadmium	0.056 J	0.1 J	0.11 J	5.2	--	--	78	200	0.005
Calcium	11,000	38,000	16,000	--	--	--	--	--	--
Chromium	24 †	18	16	21	--	--	230	690	0.1
Cobalt	12	10	8.2	20	--	--	4,700	12,000	1
Copper	29	26	18	2,900	--	--	2,900	8,200	0.65
Iron	26,000 †m	20,000 †m	18,000 †m	15,000	15,900	--	--	--	5
Lead	13	12	13	107	--	--	400	700	0.0075
Magnesium	12,000	21,000	12,000	325,000	--	--	--	730,000	--
Manganese	540	530	360	630	636	--	1,600	4,100	0.15
Mercury	0.043	0.024	0.034	0.89	--	--	10	0.1	0.002
Nickel	32	26	18	100	--	--	1,600	4,100	0.1
Potassium	2,200	1,900	1,400	--	--	--	--	--	--
Selenium	0.42 J	ND U	0.32 J	1.3	--	--	390	1,000	0.05
Sodium	82	120	1,700	--	--	--	--	--	--
Thallium	2	1.5	1.2	2.6	--	--	6.3	160	0.002
Vanadium	27	21	20	550	--	--	550	1,400	0.049
Zinc	51	42	41	5,100	--	--	23,000	61,000	5
TCLP Metals (mg/L)									
Barium	0.31 J	0.49 J	0.42 J	--	--	--	--	--	2
Boron	0.068 J	ND U	0.082 J	--	--	--	--	--	2
Chromium	ND U	ND U	0.021 J	--	--	--	--	--	0.1
Cobalt	ND U	ND U	0.023 J	--	--	--	--	--	1
Iron	ND U	ND U	1.4	--	--	--	--	--	5
Manganese	0.26 L	0.11	8.4 L	--	--	--	--	--	0.15
Nickel	ND U	ND U	0.013 J	--	--	--	--	--	0.1
SPLP Metals (mg/L)									
Manganese	0.69 L	NA	3 L	--	--	--	--	--	0.15

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-120540-4

Client Project/Site: IDOT - IL 131 - WO 020

For:

Ecology and Environment, Inc.

33 West Monroe St.

Suite 1410

Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:

12/2/2016 4:59:53 PM

Jodie Bracken, Project Management Assistant II

jodie.bracken@testamericainc.com

Designee for

Richard Wright, Senior Project Manager

(708)534-5200

richard.wright@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

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

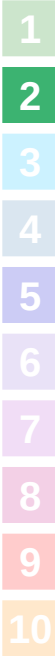


Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	13
Client Sample Results	14
Definitions	58
Certification Summary	59
Chain of Custody	60
Receipt Checklists	61

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Job ID: 500-120540-4

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-120540-4

Comments

No additional comments.

Receipt

The samples were received on 11/22/2016 4:32 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.0° C and 5.5° C.

GC/MS VOA

Method(s) 8260B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 500-362636 recovered outside control limits for the following analytes: 2-Hexanone and 4-Methyl-2-Pentanone.

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

GC/MS Semi VOA

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

Metals

Method(s) 6010B: The instrument blank (CCB) at line 119 in AD batch 363103 contained Fe greater than the reporting limit (RL). The associated sample, 500-120140-11, had results greater than 10X the CCB level and has been qualified and reported.

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

General Chemistry

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

Organic Prep

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

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B09 (1-2)

Lab Sample ID: 500-120540-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.037		0.019	0.0082	mg/Kg	1	✱	8260B	Total/NA
2-Butanone (MEK)	0.0077		0.0047	0.0021	mg/Kg	1	✱	8260B	Total/NA
Fluoranthene	0.010	J	0.040	0.0074	mg/Kg	1	✱	8270D	Total/NA
Pyrene	0.0087	J	0.040	0.0079	mg/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	0.0054	J	0.040	0.0054	mg/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	0.012	J	0.040	0.0086	mg/Kg	1	✱	8270D	Total/NA
Antimony	0.34	J	1.2	0.24	mg/Kg	1	✱	6010B	Total/NA
Arsenic	6.7		0.58	0.27	mg/Kg	1	✱	6010B	Total/NA
Barium	56		0.58	0.11	mg/Kg	1	✱	6010B	Total/NA
Beryllium	0.59		0.23	0.050	mg/Kg	1	✱	6010B	Total/NA
Boron	4.1		2.9	0.41	mg/Kg	1	✱	6010B	Total/NA
Cadmium	0.11	J	0.12	0.034	mg/Kg	1	✱	6010B	Total/NA
Calcium	16000	B	12	3.7	mg/Kg	1	✱	6010B	Total/NA
Chromium	16	B	0.58	0.10	mg/Kg	1	✱	6010B	Total/NA
Cobalt	8.2		0.29	0.066	mg/Kg	1	✱	6010B	Total/NA
Copper	18		0.58	0.13	mg/Kg	1	✱	6010B	Total/NA
Iron	18000	B	12	4.5	mg/Kg	1	✱	6010B	Total/NA
Lead	13		0.29	0.14	mg/Kg	1	✱	6010B	Total/NA
Magnesium	12000	B	5.8	2.4	mg/Kg	1	✱	6010B	Total/NA
Manganese	360	B	0.58	0.11	mg/Kg	1	✱	6010B	Total/NA
Nickel	18	B	0.58	0.16	mg/Kg	1	✱	6010B	Total/NA
Potassium	1400		29	4.7	mg/Kg	1	✱	6010B	Total/NA
Selenium	0.32	J	0.58	0.29	mg/Kg	1	✱	6010B	Total/NA
Sodium	1700		58	7.7	mg/Kg	1	✱	6010B	Total/NA
Thallium	1.2		0.58	0.29	mg/Kg	1	✱	6010B	Total/NA
Vanadium	20		0.29	0.085	mg/Kg	1	✱	6010B	Total/NA
Zinc	41		1.2	0.37	mg/Kg	1	✱	6010B	Total/NA
Barium	0.42	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.082	J	0.50	0.050	mg/L	1		6010B	TCLP
Chromium	0.021	J	0.025	0.010	mg/L	1		6010B	TCLP
Cobalt	0.023	J	0.025	0.010	mg/L	1		6010B	TCLP
Iron	1.4		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	8.4		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.027	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	3.0		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.034		0.018	0.0095	mg/Kg	1	✱	7471B	Total/NA
pH	7.9		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 1806V-61-B07 (1-2)

Lab Sample ID: 500-120540-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.54	J	1.2	0.25	mg/Kg	1	✱	6010B	Total/NA
Arsenic	8.9		0.61	0.28	mg/Kg	1	✱	6010B	Total/NA
Barium	72		0.61	0.11	mg/Kg	1	✱	6010B	Total/NA
Beryllium	0.87		0.25	0.053	mg/Kg	1	✱	6010B	Total/NA
Boron	7.0		3.1	0.43	mg/Kg	1	✱	6010B	Total/NA
Cadmium	0.056	J	0.12	0.036	mg/Kg	1	✱	6010B	Total/NA
Calcium	11000	B	12	4.0	mg/Kg	1	✱	6010B	Total/NA
Chromium	24	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 - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B07 (1-2) (Continued)

Lab Sample ID: 500-120540-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	12		0.31	0.069	mg/Kg	1	☼	6010B	Total/NA
Copper	29		0.61	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	26000	B	12	4.7	mg/Kg	1	☼	6010B	Total/NA
Lead	13		0.31	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	12000	B	6.1	2.5	mg/Kg	1	☼	6010B	Total/NA
Manganese	540	B	0.61	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	32	B	0.61	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	2200		31	5.0	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.42	J	0.61	0.30	mg/Kg	1	☼	6010B	Total/NA
Sodium	82		61	8.1	mg/Kg	1	☼	6010B	Total/NA
Thallium	2.0		0.61	0.30	mg/Kg	1	☼	6010B	Total/NA
Vanadium	27		0.31	0.090	mg/Kg	1	☼	6010B	Total/NA
Zinc	51		1.2	0.39	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.068	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.26		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.69		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.043		0.019	0.0099	mg/Kg	1	☼	7471B	Total/NA
pH	8.0		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 1806V-61-B08 (2-4)

Lab Sample ID: 500-120540-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.36	J	1.1	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	8.4		0.56	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	61		0.56	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.66		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	6.9		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.10	J	0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	38000	B	11	3.6	mg/Kg	1	☼	6010B	Total/NA
Chromium	18	B	0.56	0.096	mg/Kg	1	☼	6010B	Total/NA
Cobalt	10		0.28	0.063	mg/Kg	1	☼	6010B	Total/NA
Copper	26		0.56	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	20000	B	11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	12		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	21000	B	5.6	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	530	B	0.56	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	26	B	0.56	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1900		28	4.6	mg/Kg	1	☼	6010B	Total/NA
Sodium	120		56	7.4	mg/Kg	1	☼	6010B	Total/NA
Thallium	1.5		0.56	0.27	mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.28	0.082	mg/Kg	1	☼	6010B	Total/NA
Zinc	42		1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.49	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.11		0.025	0.010	mg/L	1		6010B	TCLP
Mercury	0.024		0.020	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.8		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 1806V-61-B04 (0-5.5)

Lab Sample ID: 500-120540-10

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B04 (0-5.5) (Continued)

Lab Sample ID: 500-120540-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Antimony	0.29	J	1.1	0.22	mg/Kg	1	☆	6010B	Total/NA	
Arsenic	4.7		0.54	0.25	mg/Kg	1	☆	6010B	Total/NA	
Barium	40		0.54	0.098	mg/Kg	1	☆	6010B	Total/NA	
Beryllium	0.56		0.21	0.047	mg/Kg	1	☆	6010B	Total/NA	
Boron	10		2.7	0.38	mg/Kg	1	☆	6010B	Total/NA	
Cadmium	0.11		0.11	0.031	mg/Kg	1	☆	6010B	Total/NA	
Calcium	130000	B	110	35	mg/Kg	10	☆	6010B	Total/NA	
Chromium	17	B	0.54	0.092	mg/Kg	1	☆	6010B	Total/NA	
Cobalt	5.9		0.27	0.061	mg/Kg	1	☆	6010B	Total/NA	
Copper	16		0.54	0.12	mg/Kg	1	☆	6010B	Total/NA	
Iron	16000	B	11	4.1	mg/Kg	1	☆	6010B	Total/NA	
Lead	7.4		0.27	0.13	mg/Kg	1	☆	6010B	Total/NA	
Magnesium	29000	B	5.4	2.2	mg/Kg	1	☆	6010B	Total/NA	
Manganese	340	B	0.54	0.11	mg/Kg	1	☆	6010B	Total/NA	
Nickel	18	B	0.54	0.15	mg/Kg	1	☆	6010B	Total/NA	
Potassium	2600		27	4.4	mg/Kg	1	☆	6010B	Total/NA	
Sodium	1100		54	7.1	mg/Kg	1	☆	6010B	Total/NA	
Thallium	1.3		0.54	0.26	mg/Kg	1	☆	6010B	Total/NA	
Vanadium	17		0.27	0.078	mg/Kg	1	☆	6010B	Total/NA	
Zinc	35		1.1	0.34	mg/Kg	1	☆	6010B	Total/NA	
Barium	0.53		0.50	0.050	mg/L	1		6010B	TCLP	
Boron	0.12	J	0.50	0.050	mg/L	1		6010B	TCLP	
Cadmium	0.0051		0.0050	0.0020	mg/L	1		6010B	TCLP	
Chromium	0.031		0.025	0.010	mg/L	1		6010B	TCLP	
Cobalt	0.15		0.025	0.010	mg/L	1		6010B	TCLP	
Iron	2.5		0.40	0.20	mg/L	1		6010B	TCLP	
Lead	0.023		0.0075	0.0075	mg/L	1		6010B	TCLP	
Manganese	9.1		0.025	0.010	mg/L	1		6010B	TCLP	
Nickel	0.15		0.025	0.010	mg/L	1		6010B	TCLP	
Selenium	0.030	J	0.050	0.020	mg/L	1		6010B	TCLP	
Zinc	0.085	J	0.50	0.020	mg/L	1		6010B	TCLP	
Lead	0.067		0.0075	0.0075	mg/L	1		6010B	SPLP East	
Manganese	0.92		0.025	0.010	mg/L	1		6010B	SPLP East	
Nickel	0.20		0.025	0.010	mg/L	1		6010B	SPLP East	
Mercury	0.010	J	0.019	0.0097	mg/Kg	1	☆	7471B	Total/NA	
pH	9.6		0.2	0.2	SU	1		9045D	Total/NA	

Client Sample ID: 1806V-61-B04 (5.5-11)

Lab Sample ID: 500-120540-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Antimony	0.26	J	1.1	0.22	mg/Kg	1	☆	6010B	Total/NA	
Arsenic	5.6		0.54	0.25	mg/Kg	1	☆	6010B	Total/NA	
Barium	35		0.54	0.098	mg/Kg	1	☆	6010B	Total/NA	
Beryllium	0.58		0.22	0.047	mg/Kg	1	☆	6010B	Total/NA	
Boron	10		2.7	0.38	mg/Kg	1	☆	6010B	Total/NA	
Cadmium	0.092	J	0.11	0.031	mg/Kg	1	☆	6010B	Total/NA	
Calcium	120000	B	110	35	mg/Kg	10	☆	6010B	Total/NA	
Chromium	17	B	0.54	0.093	mg/Kg	1	☆	6010B	Total/NA	
Cobalt	7.7		0.27	0.061	mg/Kg	1	☆	6010B	Total/NA	
Copper	19		0.54	0.12	mg/Kg	1	☆	6010B	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B04 (5.5-11) (Continued)

Lab Sample ID: 500-120540-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Iron	17000	B	11	4.1	mg/Kg	1		✱	6010B	Total/NA
Lead	8.3		0.27	0.13	mg/Kg	1		✱	6010B	Total/NA
Magnesium	32000	B	5.4	2.2	mg/Kg	1		✱	6010B	Total/NA
Manganese	380	B	0.54	0.11	mg/Kg	1		✱	6010B	Total/NA
Nickel	22	B	0.54	0.15	mg/Kg	1		✱	6010B	Total/NA
Potassium	2700		27	4.4	mg/Kg	1		✱	6010B	Total/NA
Sodium	1100		54	7.1	mg/Kg	1		✱	6010B	Total/NA
Thallium	1.2		0.54	0.26	mg/Kg	1		✱	6010B	Total/NA
Vanadium	18		0.27	0.079	mg/Kg	1		✱	6010B	Total/NA
Zinc	38		1.1	0.34	mg/Kg	1		✱	6010B	Total/NA
Barium	0.47	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.11	J	0.50	0.050	mg/L	1			6010B	TCLP
Cadmium	0.0029	J	0.0050	0.0020	mg/L	1			6010B	TCLP
Chromium	0.046		0.025	0.010	mg/L	1			6010B	TCLP
Cobalt	0.13		0.025	0.010	mg/L	1			6010B	TCLP
Iron	5.1		0.40	0.20	mg/L	1			6010B	TCLP
Lead	0.027		0.0075	0.0075	mg/L	1			6010B	TCLP
Manganese	9.4		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.094		0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.35	J	0.50	0.020	mg/L	1			6010B	TCLP
Iron	220	^	0.40	0.20	mg/L	1			6010B	SPLP East
Lead	0.088		0.0075	0.0075	mg/L	1			6010B	SPLP East
Manganese	1.2		0.025	0.010	mg/L	1			6010B	SPLP East
pH	9.4		0.2	0.2	SU	1			9045D	Total/NA

Client Sample ID: 1806V-61-B06 (0-4)

Lab Sample ID: 500-120540-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Fluoranthene	0.0075	J	0.037	0.0070	mg/Kg	1		✱	8270D	Total/NA
Antimony	0.41	J	1.1	0.22	mg/Kg	1		✱	6010B	Total/NA
Arsenic	9.3		0.54	0.25	mg/Kg	1		✱	6010B	Total/NA
Barium	46		0.54	0.099	mg/Kg	1		✱	6010B	Total/NA
Beryllium	0.64		0.22	0.047	mg/Kg	1		✱	6010B	Total/NA
Boron	5.6		2.7	0.38	mg/Kg	1		✱	6010B	Total/NA
Cadmium	0.13		0.11	0.031	mg/Kg	1		✱	6010B	Total/NA
Calcium	19000	B	11	3.5	mg/Kg	1		✱	6010B	Total/NA
Chromium	18	B	0.54	0.093	mg/Kg	1		✱	6010B	Total/NA
Cobalt	14		0.27	0.061	mg/Kg	1		✱	6010B	Total/NA
Copper	23		0.54	0.12	mg/Kg	1		✱	6010B	Total/NA
Iron	22000	B	11	4.2	mg/Kg	1		✱	6010B	Total/NA
Lead	20		0.27	0.13	mg/Kg	1		✱	6010B	Total/NA
Magnesium	12000	B	5.4	2.2	mg/Kg	1		✱	6010B	Total/NA
Manganese	600	B	0.54	0.11	mg/Kg	1		✱	6010B	Total/NA
Nickel	22	B	0.54	0.15	mg/Kg	1		✱	6010B	Total/NA
Potassium	1700		27	4.4	mg/Kg	1		✱	6010B	Total/NA
Selenium	0.33	J	0.54	0.27	mg/Kg	1		✱	6010B	Total/NA
Sodium	96		54	7.1	mg/Kg	1		✱	6010B	Total/NA
Thallium	1.8		0.54	0.27	mg/Kg	1		✱	6010B	Total/NA
Vanadium	23		0.27	0.079	mg/Kg	1		✱	6010B	Total/NA
Zinc	51		1.1	0.34	mg/Kg	1		✱	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B06 (0-4) (Continued)

Lab Sample ID: 500-120540-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.052	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.12		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.021	J B	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.029		0.018	0.0092	mg/Kg	1	✱	7471B	Total/NA
pH	8.5		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 1806V-61-B03 (0-5.5)

Lab Sample ID: 500-120540-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0068	J	0.038	0.0060	mg/Kg	1	✱	8270D	Total/NA
2-Methylnaphthalene	0.011	J	0.078	0.0071	mg/Kg	1	✱	8270D	Total/NA
Acenaphthylene	0.013	J	0.038	0.0051	mg/Kg	1	✱	8270D	Total/NA
Acenaphthene	0.016	J	0.038	0.0070	mg/Kg	1	✱	8270D	Total/NA
Fluorene	0.016	J	0.038	0.0054	mg/Kg	1	✱	8270D	Total/NA
Phenanthrene	0.23		0.038	0.0054	mg/Kg	1	✱	8270D	Total/NA
Anthracene	0.050		0.038	0.0065	mg/Kg	1	✱	8270D	Total/NA
Fluoranthene	0.54		0.038	0.0072	mg/Kg	1	✱	8270D	Total/NA
Pyrene	0.67		0.038	0.0077	mg/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	0.26		0.038	0.0052	mg/Kg	1	✱	8270D	Total/NA
Chrysene	0.30		0.038	0.011	mg/Kg	1	✱	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.12	J	0.19	0.071	mg/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	0.50		0.038	0.0084	mg/Kg	1	✱	8270D	Total/NA
Benzo[k]fluoranthene	0.20		0.038	0.011	mg/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	0.27		0.038	0.0075	mg/Kg	1	✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.13		0.038	0.010	mg/Kg	1	✱	8270D	Total/NA
Dibenz(a,h)anthracene	0.031	J	0.038	0.0075	mg/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	0.14		0.038	0.012	mg/Kg	1	✱	8270D	Total/NA
Antimony	0.47	J	1.1	0.23	mg/Kg	1	✱	6010B	Total/NA
Arsenic	6.9		0.56	0.26	mg/Kg	1	✱	6010B	Total/NA
Barium	68		0.56	0.10	mg/Kg	1	✱	6010B	Total/NA
Beryllium	0.53		0.22	0.048	mg/Kg	1	✱	6010B	Total/NA
Boron	10		2.8	0.39	mg/Kg	1	✱	6010B	Total/NA
Cadmium	1.0		0.11	0.032	mg/Kg	1	✱	6010B	Total/NA
Calcium	110000	B	110	36	mg/Kg	10	✱	6010B	Total/NA
Chromium	23	B	0.56	0.096	mg/Kg	1	✱	6010B	Total/NA
Cobalt	7.1		0.28	0.063	mg/Kg	1	✱	6010B	Total/NA
Copper	58		0.56	0.12	mg/Kg	1	✱	6010B	Total/NA
Iron	19000	B	11	4.3	mg/Kg	1	✱	6010B	Total/NA
Lead	230		0.28	0.14	mg/Kg	1	✱	6010B	Total/NA
Magnesium	37000	B	5.6	2.3	mg/Kg	1	✱	6010B	Total/NA
Manganese	510	B	0.56	0.11	mg/Kg	1	✱	6010B	Total/NA
Nickel	20	B	0.56	0.15	mg/Kg	1	✱	6010B	Total/NA
Potassium	1400		28	4.6	mg/Kg	1	✱	6010B	Total/NA
Silver	0.12	J	0.28	0.065	mg/Kg	1	✱	6010B	Total/NA
Sodium	2400		56	7.4	mg/Kg	1	✱	6010B	Total/NA
Thallium	1.5		0.56	0.28	mg/Kg	1	✱	6010B	Total/NA
Vanadium	18		0.28	0.082	mg/Kg	1	✱	6010B	Total/NA
Zinc	180		1.1	0.35	mg/Kg	1	✱	6010B	Total/NA
Barium	0.39	J	0.50	0.050	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B03 (0-5.5) (Continued)

Lab Sample ID: 500-120540-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.065	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0032	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Lead	0.012		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	0.053		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.010	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.069	J B	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.37		0.0075	0.0075	mg/L	1		6010B	SPLP East
Mercury	0.052		0.019	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	9.2		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 1806V-61-B05 (0-2)

Lab Sample ID: 500-120540-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.31	J	1.2	0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.2		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	69		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.63		0.23	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	2.4	J	2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11	J	0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	2100	B	12	3.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	17	B	0.58	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	14		0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	20000	B	12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.29	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	3500	B	5.8	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	730	B	0.58	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	18	B	0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	950		29	4.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.61		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	95		58	7.7	mg/Kg	1	☼	6010B	Total/NA
Thallium	1.9		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Vanadium	24		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	38		1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.12	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.020	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.026	J B	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.032		0.020	0.010	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 1806V-61-B03 (5.5-11)

Lab Sample ID: 500-120540-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.011	J	0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.017	J	0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.29	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	28		0.55	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.48		0.22	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	8.0		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B03 (5.5-11) (Continued)

Lab Sample ID: 500-120540-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.073	J	0.11	0.032	mg/Kg	1	✱	6010B	Total/NA
Calcium	86000	B	110	35	mg/Kg	10	✱	6010B	Total/NA
Chromium	14	B	0.55	0.094	mg/Kg	1	✱	6010B	Total/NA
Cobalt	8.4		0.27	0.062	mg/Kg	1	✱	6010B	Total/NA
Copper	20		0.55	0.12	mg/Kg	1	✱	6010B	Total/NA
Iron	16000	B	11	4.2	mg/Kg	1	✱	6010B	Total/NA
Lead	8.6		0.27	0.14	mg/Kg	1	✱	6010B	Total/NA
Magnesium	31000	B	5.5	2.2	mg/Kg	1	✱	6010B	Total/NA
Manganese	440	B	0.55	0.11	mg/Kg	1	✱	6010B	Total/NA
Nickel	19	B	0.55	0.15	mg/Kg	1	✱	6010B	Total/NA
Potassium	2100		27	4.5	mg/Kg	1	✱	6010B	Total/NA
Sodium	790		55	7.2	mg/Kg	1	✱	6010B	Total/NA
Thallium	1.4		0.55	0.27	mg/Kg	1	✱	6010B	Total/NA
Vanadium	15		0.27	0.080	mg/Kg	1	✱	6010B	Total/NA
Zinc	38		1.1	0.35	mg/Kg	1	✱	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.051	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.4		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.16	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.46		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.5		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 1806V-61-B02 (0-2)

Lab Sample ID: 500-120540-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.020		0.020	0.0086	mg/Kg	1	✱	8260B	Total/NA
Acenaphthylene	0.0059	J	0.037	0.0049	mg/Kg	1	✱	8270D	Total/NA
Phenanthrene	0.041		0.037	0.0051	mg/Kg	1	✱	8270D	Total/NA
Anthracene	0.0073	J	0.037	0.0062	mg/Kg	1	✱	8270D	Total/NA
Fluoranthene	0.086		0.037	0.0068	mg/Kg	1	✱	8270D	Total/NA
Pyrene	0.081		0.037	0.0073	mg/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	0.039		0.037	0.0050	mg/Kg	1	✱	8270D	Total/NA
Chrysene	0.055		0.037	0.010	mg/Kg	1	✱	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.076	J	0.19	0.067	mg/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	0.083		0.037	0.0080	mg/Kg	1	✱	8270D	Total/NA
Benzo[k]fluoranthene	0.029	J	0.037	0.011	mg/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	0.048		0.037	0.0071	mg/Kg	1	✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.032	J	0.037	0.0096	mg/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	0.032	J	0.037	0.012	mg/Kg	1	✱	8270D	Total/NA
Antimony	0.31	J	1.1	0.23	mg/Kg	1	✱	6010B	Total/NA
Arsenic	5.6		0.54	0.25	mg/Kg	1	✱	6010B	Total/NA
Barium	37		0.54	0.099	mg/Kg	1	✱	6010B	Total/NA
Beryllium	0.41		0.22	0.047	mg/Kg	1	✱	6010B	Total/NA
Boron	5.6		2.7	0.38	mg/Kg	1	✱	6010B	Total/NA
Cadmium	0.39		0.11	0.031	mg/Kg	1	✱	6010B	Total/NA
Calcium	100000	B	110	35	mg/Kg	10	✱	6010B	Total/NA
Chromium	15	B	0.54	0.093	mg/Kg	1	✱	6010B	Total/NA
Cobalt	7.5		0.27	0.061	mg/Kg	1	✱	6010B	Total/NA
Copper	24		0.54	0.12	mg/Kg	1	✱	6010B	Total/NA
Iron	14000	B	11	4.2	mg/Kg	1	✱	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B02 (0-2) (Continued)

Lab Sample ID: 500-120540-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	93		0.27	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	37000	B	5.4	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	560	B	0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	14	B	0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1100		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Sodium	1900		54	7.2	mg/Kg	1	☼	6010B	Total/NA
Thallium	1.4		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.27	0.079	mg/Kg	1	☼	6010B	Total/NA
Zinc	88		1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.36	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.084	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.31		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.010	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.052	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	2.3		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.035		0.018	0.0097	mg/Kg	1	☼	7471B	Total/NA
pH	8.8		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 1806V-61-B01 (0-3)

Lab Sample ID: 500-120540-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.029		0.016	0.0072	mg/Kg	1	☼	8260B	Total/NA
Acenaphthylene	0.012	J	0.037	0.0049	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.027	J	0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0093	J	0.037	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.078		0.037	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.072		0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.046		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.057		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.091		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.045		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.055		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.031	J	0.037	0.0097	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.033	J	0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.32	J	1.2	0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	6.6		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	56		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.58		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	7.4		2.9	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.24		0.12	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	52000	B	12	3.7	mg/Kg	1	☼	6010B	Total/NA
Chromium	16	B	0.58	0.099	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.4		0.29	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	24		0.58	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	17000	B	12	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	49		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	30000	B	5.8	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	460	B	0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	19	B	0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		29	4.7	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B01 (0-3) (Continued)

Lab Sample ID: 500-120540-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Sodium	2700		58	7.6	mg/Kg	1		☼	6010B	Total/NA
Thallium	1.4		0.58	0.28	mg/Kg	1		☼	6010B	Total/NA
Vanadium	20		0.29	0.084	mg/Kg	1		☼	6010B	Total/NA
Zinc	61		1.2	0.36	mg/Kg	1		☼	6010B	Total/NA
Barium	0.46	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.088	J	0.50	0.050	mg/L	1			6010B	TCLP
Cadmium	0.0021	J	0.0050	0.0020	mg/L	1			6010B	TCLP
Cobalt	0.044		0.025	0.010	mg/L	1			6010B	TCLP
Iron	0.26	J	0.40	0.20	mg/L	1			6010B	TCLP
Lead	0.037		0.0075	0.0075	mg/L	1			6010B	TCLP
Manganese	9.8		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.027		0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.095	J B	0.50	0.020	mg/L	1			6010B	TCLP
Lead	0.51		0.0075	0.0075	mg/L	1			6010B	SPLP East
Manganese	3.8		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.022		0.017	0.0091	mg/Kg	1		☼	7471B	Total/NA
pH	8.8		0.2	0.2	SU	1			9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-120540-7	1806V-61-B09 (1-2)	Solid	11/22/16 08:40	11/22/16 16:32
500-120540-8	1806V-61-B07 (1-2)	Solid	11/22/16 09:00	11/22/16 16:32
500-120540-9	1806V-61-B08 (2-4)	Solid	11/22/16 09:10	11/22/16 16:32
500-120540-12	1806V-61-B06 (0-4)	Solid	11/22/16 10:30	11/22/16 16:32
500-120540-14	1806V-61-B05 (0-2)	Solid	11/22/16 10:50	11/22/16 16:32
500-120540-16	1806V-61-B02 (0-2)	Solid	11/22/16 12:00	11/22/16 16:32
500-120540-17	1806V-61-B01 (0-3)	Solid	11/22/16 12:15	11/22/16 16:32

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B09 (1-2)

Lab Sample ID: 500-120540-7

Date Collected: 11/22/16 08:40

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 82.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.037		0.019	0.0082	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Benzene	<0.0019		0.0019	0.00048	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Bromodichloromethane	<0.0019		0.0019	0.00038	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Bromoform	<0.0019		0.0019	0.00055	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Bromomethane	<0.0047		0.0047	0.0018	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
2-Butanone (MEK)	0.0077		0.0047	0.0021	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Carbon disulfide	<0.0047		0.0047	0.00098	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Carbon tetrachloride	<0.0019		0.0019	0.00054	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Chlorobenzene	<0.0019		0.0019	0.00069	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Chloroethane	<0.0047		0.0047	0.0014	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Chloroform	<0.0019		0.0019	0.00065	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Chloromethane	<0.0047		0.0047	0.0019	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00052	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00057	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Dibromochloromethane	<0.0019		0.0019	0.00061	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
1,1-Dichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
1,2-Dichloroethane	<0.0047		0.0047	0.0015	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
1,1-Dichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
1,2-Dichloropropane	<0.0019		0.0019	0.00048	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00066	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Ethylbenzene	<0.0019		0.0019	0.00090	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
2-Hexanone	<0.0047 *		0.0047	0.0015	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Methylene Chloride	<0.0047		0.0047	0.0018	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
4-Methyl-2-pentanone (MIBK)	<0.0047 *		0.0047	0.0014	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00055	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Styrene	<0.0019		0.0019	0.00057	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00060	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Tetrachloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Toluene	<0.0019		0.0019	0.00047	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00083	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00066	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00063	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00080	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Trichloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Vinyl acetate	<0.0047		0.0047	0.0016	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Vinyl chloride	<0.0019		0.0019	0.00083	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1
Xylenes, Total	<0.0038		0.0038	0.00060	mg/Kg	☼	11/22/16 17:05	11/29/16 07:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 120	11/22/16 17:05	11/29/16 07:46	1
Dibromofluoromethane	112		75 - 120	11/22/16 17:05	11/29/16 07:46	1
1,2-Dichloroethane-d4 (Surr)	112		69 - 134	11/22/16 17:05	11/29/16 07:46	1
Toluene-d8 (Surr)	110		75 - 123	11/22/16 17:05	11/29/16 07:46	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	☼	11/27/16 17:50	11/29/16 00:25	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B09 (1-2)

Lab Sample ID: 500-120540-7

Date Collected: 11/22/16 08:40

Matrix: Solid

Date Received: 11/22/16 16:32

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	0.048	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.049	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Naphthalene	<0.040		0.040	0.0061	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
2-Methylnaphthalene	<0.080		0.080	0.0073	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Phenanthrene	<0.040		0.040	0.0056	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Fluoranthene	0.010	J	0.040	0.0074	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Pyrene	0.0087	J	0.040	0.0079	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Benzo[a]anthracene	0.0054	J	0.040	0.0054	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B09 (1-2)

Lab Sample ID: 500-120540-7

Date Collected: 11/22/16 08:40

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 82.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Benzo[b]fluoranthene	0.012	J	0.040	0.0086	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Benzo[a]pyrene	<0.040		0.040	0.0077	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	11/27/16 17:50	11/29/16 00:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	89		40 - 130	11/27/16 17:50	11/29/16 00:25	1
Phenol-d5	84		36 - 123	11/27/16 17:50	11/29/16 00:25	1
Nitrobenzene-d5	84		33 - 124	11/27/16 17:50	11/29/16 00:25	1
2-Fluorobiphenyl	83		42 - 115	11/27/16 17:50	11/29/16 00:25	1
2,4,6-Tribromophenol	113		25 - 130	11/27/16 17:50	11/29/16 00:25	1
Terphenyl-d14	107		25 - 150	11/27/16 17:50	11/29/16 00:25	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.34	J	1.2	0.24	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Arsenic	6.7		0.58	0.27	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Barium	56		0.58	0.11	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Beryllium	0.59		0.23	0.050	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Boron	4.1		2.9	0.41	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Cadmium	0.11	J	0.12	0.034	mg/Kg	☼	11/26/16 10:35	11/30/16 18:41	1
Calcium	16000	B	12	3.7	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Chromium	16	B	0.58	0.10	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Cobalt	8.2		0.29	0.066	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Copper	18		0.58	0.13	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Iron	18000	B	12	4.5	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Lead	13		0.29	0.14	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Magnesium	12000	B	5.8	2.4	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Manganese	360	B	0.58	0.11	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Nickel	18	B	0.58	0.16	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Potassium	1400		29	4.7	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Selenium	0.32	J	0.58	0.29	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Sodium	1700		58	7.7	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Thallium	1.2		0.58	0.29	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Vanadium	20		0.29	0.085	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	1
Zinc	41		1.2	0.37	mg/Kg	☼	11/26/16 10:35	11/29/16 14:51	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	—	11/29/16 14:33	11/30/16 17:32	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	—	11/29/16 14:33	11/30/16 17:32	1
Boron	0.082	J	0.50	0.050	mg/L	—	11/29/16 14:33	11/30/16 17:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B09 (1-2)

Lab Sample ID: 500-120540-7

Date Collected: 11/22/16 08:40

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 82.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	—	11/29/16 14:33	11/30/16 17:32	1
Chromium	0.021	J	0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:32	1
Cobalt	0.023	J	0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:32	1
Iron	1.4		0.40	0.20	mg/L	—	11/29/16 14:33	11/30/16 17:32	1
Lead	<0.0075		0.0075	0.0075	mg/L	—	11/29/16 14:33	11/30/16 17:32	1
Manganese	8.4		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:32	1
Nickel	0.013	J	0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:32	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/29/16 14:33	11/30/16 17:32	1
Silver	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:32	1
Zinc	0.027	J B	0.50	0.020	mg/L	—	11/29/16 14:33	11/30/16 17:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	3.0		0.025	0.010	mg/L	—	11/29/16 14:28	11/30/16 22:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	—	11/29/16 14:33	11/30/16 13:20	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/29/16 14:33	11/30/16 13:20	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	—	11/29/16 12:45	11/30/16 09:16	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.034		0.018	0.0095	mg/Kg	☼	11/25/16 15:00	11/28/16 13:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.2	0.2	SU	—		11/25/16 16:24	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B07 (1-2)

Lab Sample ID: 500-120540-8

Date Collected: 11/22/16 09:00

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 79.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0076	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Bromoform	<0.0018		0.0018	0.00051	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
2-Butanone (MEK)	<0.0044		0.0044	0.0019	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Carbon disulfide	<0.0044		0.0044	0.00091	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Dibromochloromethane	<0.0018		0.0018	0.00057	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
1,1-Dichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
1,1-Dichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
1,2-Dichloropropane	<0.0018		0.0018	0.00045	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Ethylbenzene	<0.0018		0.0018	0.00084	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
2-Hexanone	<0.0044 *		0.0044	0.0014	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
4-Methyl-2-pentanone (MIBK)	<0.0044 *		0.0044	0.0013	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
1,1,1,2-Tetrachloroethane	<0.0018		0.0018	0.00056	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Toluene	<0.0018		0.0018	0.00044	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00075	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Trichloroethene	<0.0018		0.0018	0.00059	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	11/22/16 17:05	11/29/16 08:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 120	11/22/16 17:05	11/29/16 08:11	1
Dibromofluoromethane	107		75 - 120	11/22/16 17:05	11/29/16 08:11	1
1,2-Dichloroethane-d4 (Surr)	109		69 - 134	11/22/16 17:05	11/29/16 08:11	1
Toluene-d8 (Surr)	108		75 - 123	11/22/16 17:05	11/29/16 08:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.090	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B07 (1-2)

Lab Sample ID: 500-120540-8

Date Collected: 11/22/16 09:00

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 79.6

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	0.049	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Naphthalene	<0.040		0.040	0.0063	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
2,4-Dichlorophenol	<0.40		0.40	0.097	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
2,4,5-Trichlorophenol	<0.40		0.40	0.093	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
2-Methylnaphthalene	<0.082		0.082	0.0075	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
2,4-Dinitrophenol	<0.82		0.82	0.72	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Acenaphthylene	<0.040		0.040	0.0054	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
2,4-Dinitrotoluene	<0.20		0.20	0.065	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Dibenzofuran	<0.20		0.20	0.048	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.054	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Phenanthrene	<0.040		0.040	0.0057	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Pyrene	<0.040		0.040	0.0081	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Benzo[a]anthracene	<0.040		0.040	0.0055	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B07 (1-2)

Lab Sample ID: 500-120540-8

Date Collected: 11/22/16 09:00

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 79.6

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	☼	11/27/16 17:50	11/29/16 00:50	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Benzo[b]fluoranthene	<0.040		0.040	0.0088	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Benzo[a]pyrene	<0.040		0.040	0.0079	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.011	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0079	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	11/27/16 17:50	11/29/16 00:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	83		40 - 130	11/27/16 17:50	11/29/16 00:50	1
Phenol-d5	76		36 - 123	11/27/16 17:50	11/29/16 00:50	1
Nitrobenzene-d5	79		33 - 124	11/27/16 17:50	11/29/16 00:50	1
2-Fluorobiphenyl	78		42 - 115	11/27/16 17:50	11/29/16 00:50	1
2,4,6-Tribromophenol	110		25 - 130	11/27/16 17:50	11/29/16 00:50	1
Terphenyl-d14	105		25 - 150	11/27/16 17:50	11/29/16 00:50	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.54	J	1.2	0.25	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Arsenic	8.9		0.61	0.28	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Barium	72		0.61	0.11	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Beryllium	0.87		0.25	0.053	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Boron	7.0		3.1	0.43	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Cadmium	0.056	J	0.12	0.036	mg/Kg	☼	11/26/16 10:35	11/30/16 18:45	1
Calcium	11000	B	12	4.0	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Chromium	24	B	0.61	0.11	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Cobalt	12		0.31	0.069	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Copper	29		0.61	0.13	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Iron	26000	B	12	4.7	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Lead	13		0.31	0.15	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Magnesium	12000	B	6.1	2.5	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Manganese	540	B	0.61	0.12	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Nickel	32	B	0.61	0.17	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Potassium	2200		31	5.0	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Selenium	0.42	J	0.61	0.30	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Silver	<0.31		0.31	0.072	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Sodium	82		61	8.1	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Thallium	2.0		0.61	0.30	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Vanadium	27		0.31	0.090	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1
Zinc	51		1.2	0.39	mg/Kg	☼	11/26/16 10:35	11/29/16 15:14	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.31	J	0.50	0.050	mg/L	☼	11/29/16 14:33	11/30/16 17:39	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	☼	11/29/16 14:33	11/30/16 17:39	1
Boron	0.068	J	0.50	0.050	mg/L	☼	11/29/16 14:33	11/30/16 17:39	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B07 (1-2)

Lab Sample ID: 500-120540-8

Date Collected: 11/22/16 09:00

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 79.6

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	—	11/29/16 14:33	11/30/16 17:39	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:39	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:39	1
Iron	<0.40		0.40	0.20	mg/L	—	11/29/16 14:33	11/30/16 17:39	1
Lead	<0.0075		0.0075	0.0075	mg/L	—	11/29/16 14:33	11/30/16 17:39	1
Manganese	0.26		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:39	1
Nickel	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:39	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/29/16 14:33	11/30/16 17:39	1
Silver	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:39	1
Zinc	<0.50		0.50	0.020	mg/L	—	11/29/16 14:33	11/30/16 17:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.69		0.025	0.010	mg/L	—	11/29/16 14:28	11/30/16 22:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	—	11/29/16 14:33	11/30/16 13:23	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/29/16 14:33	11/30/16 13:23	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	—	11/29/16 12:45	11/30/16 09:18	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.043		0.019	0.0099	mg/Kg	☼	11/25/16 15:00	11/28/16 13:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.0		0.2	0.2	SU	—		11/25/16 16:27	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B08 (2-4)

Lab Sample ID: 500-120540-9

Date Collected: 11/22/16 09:10

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 82.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0071	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Benzene	<0.0016		0.0016	0.00042	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Carbon disulfide	<0.0041		0.0041	0.00085	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Chloroform	<0.0016		0.0016	0.00057	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Chloromethane	<0.0041		0.0041	0.0016	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00046	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
2-Hexanone	<0.0041	*	0.0041	0.0013	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
4-Methyl-2-pentanone (MIBK)	<0.0041	*	0.0041	0.0012	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Tetrachloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Vinyl chloride	<0.0016		0.0016	0.00072	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1
Xylenes, Total	<0.0033		0.0033	0.00052	mg/Kg	☼	11/22/16 17:05	11/29/16 08:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 120	11/22/16 17:05	11/29/16 08:36	1
Dibromofluoromethane	108		75 - 120	11/22/16 17:05	11/29/16 08:36	1
1,2-Dichloroethane-d4 (Surr)	105		69 - 134	11/22/16 17:05	11/29/16 08:36	1
Toluene-d8 (Surr)	108		75 - 123	11/22/16 17:05	11/29/16 08:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B08 (2-4)

Lab Sample ID: 500-120540-9

Date Collected: 11/22/16 09:10

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 82.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.049	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
2,4,5-Trichlorophenol	<0.39		0.39	0.091	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
2-Methylnaphthalene	<0.080		0.080	0.0073	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
4-Chloro-3-methylphenol	<0.39		0.39	0.14	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
2-Nitrophenol	<0.39		0.39	0.094	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Phenanthrene	<0.039		0.039	0.0055	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Fluoranthene	<0.039		0.039	0.0074	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Pyrene	<0.039		0.039	0.0079	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B08 (2-4)

Lab Sample ID: 500-120540-9

Date Collected: 11/22/16 09:10

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 82.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Benzo[b]fluoranthene	<0.039		0.039	0.0086	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Benzo[a]pyrene	<0.039		0.039	0.0077	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0077	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	11/27/16 17:50	11/29/16 01:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	79		40 - 130	11/27/16 17:50	11/29/16 01:16	1
Phenol-d5	82		36 - 123	11/27/16 17:50	11/29/16 01:16	1
Nitrobenzene-d5	82		33 - 124	11/27/16 17:50	11/29/16 01:16	1
2-Fluorobiphenyl	82		42 - 115	11/27/16 17:50	11/29/16 01:16	1
2,4,6-Tribromophenol	98		25 - 130	11/27/16 17:50	11/29/16 01:16	1
Terphenyl-d14	99		25 - 150	11/27/16 17:50	11/29/16 01:16	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.36	J	1.1	0.23	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Arsenic	8.4		0.56	0.26	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Barium	61		0.56	0.10	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Beryllium	0.66		0.22	0.048	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Boron	6.9		2.8	0.39	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Cadmium	0.10	J	0.11	0.032	mg/Kg	☼	11/26/16 10:35	11/30/16 18:50	1
Calcium	38000	B	11	3.6	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Chromium	18	B	0.56	0.096	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Cobalt	10		0.28	0.063	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Copper	26		0.56	0.12	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Iron	20000	B	11	4.3	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Lead	12		0.28	0.14	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Magnesium	21000	B	5.6	2.3	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Manganese	530	B	0.56	0.11	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Nickel	26	B	0.56	0.15	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Potassium	1900		28	4.6	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Selenium	<0.56		0.56	0.28	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Silver	<0.28		0.28	0.065	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Sodium	120		56	7.4	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Thallium	1.5		0.56	0.27	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Vanadium	21		0.28	0.082	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	1
Zinc	42		1.1	0.35	mg/Kg	☼	11/26/16 10:35	11/29/16 15:20	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	☼	11/29/16 14:33	11/30/16 17:46	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	☼	11/29/16 14:33	11/30/16 17:46	1
Boron	<0.50		0.50	0.050	mg/L	☼	11/29/16 14:33	11/30/16 17:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B08 (2-4)

Lab Sample ID: 500-120540-9

Date Collected: 11/22/16 09:10

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 82.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	—	11/29/16 14:33	11/30/16 17:46	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:46	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:46	1
Iron	<0.40		0.40	0.20	mg/L	—	11/29/16 14:33	11/30/16 17:46	1
Lead	<0.0075		0.0075	0.0075	mg/L	—	11/29/16 14:33	11/30/16 17:46	1
Manganese	0.11		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:46	1
Nickel	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:46	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/29/16 14:33	11/30/16 17:46	1
Silver	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:46	1
Zinc	<0.50		0.50	0.020	mg/L	—	11/29/16 14:33	11/30/16 17:46	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	—	11/29/16 14:33	11/30/16 13:27	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/29/16 14:33	11/30/16 13:27	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	—	11/29/16 12:45	11/30/16 09:19	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.020	0.010	mg/Kg	☼	11/25/16 15:00	11/28/16 13:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.8		0.2	0.2	SU	—		11/25/16 16:31	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B06 (0-4)

Lab Sample ID: 500-120540-12

Date Collected: 11/22/16 10:30

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0076	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Bromoform	<0.0018		0.0018	0.00051	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
2-Butanone (MEK)	<0.0044		0.0044	0.0019	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Carbon disulfide	<0.0044		0.0044	0.00091	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Dibromochloromethane	<0.0018		0.0018	0.00057	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
1,1-Dichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
1,1-Dichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
1,2-Dichloropropane	<0.0018		0.0018	0.00045	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Ethylbenzene	<0.0018		0.0018	0.00084	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00056	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Toluene	<0.0018		0.0018	0.00044	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00075	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Trichloroethene	<0.0018		0.0018	0.00059	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	11/22/16 17:05	11/29/16 14:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 120	11/22/16 17:05	11/29/16 14:18	1
Dibromofluoromethane	109		75 - 120	11/22/16 17:05	11/29/16 14:18	1
1,2-Dichloroethane-d4 (Surr)	108		69 - 134	11/22/16 17:05	11/29/16 14:18	1
Toluene-d8 (Surr)	108		75 - 123	11/22/16 17:05	11/29/16 14:18	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	☼	11/27/16 17:50	11/29/16 02:31	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B06 (0-4)

Lab Sample ID: 500-120540-12

Date Collected: 11/22/16 10:30

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
2,4-Dichlorophenol	<0.37		0.37	0.090	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
2-Methylnaphthalene	<0.076		0.076	0.0069	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Phenanthrene	<0.037		0.037	0.0053	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Fluoranthene	0.0075	J	0.037	0.0070	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Pyrene	<0.037		0.037	0.0075	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Benzo[a]anthracene	<0.037		0.037	0.0051	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B06 (0-4)

Lab Sample ID: 500-120540-12

Date Collected: 11/22/16 10:30

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Benzo[b]fluoranthene	<0.037		0.037	0.0081	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Benzo[a]pyrene	<0.037		0.037	0.0073	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0098	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	11/27/16 17:50	11/29/16 02:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	82		40 - 130	11/27/16 17:50	11/29/16 02:31	1
Phenol-d5	77		36 - 123	11/27/16 17:50	11/29/16 02:31	1
Nitrobenzene-d5	73		33 - 124	11/27/16 17:50	11/29/16 02:31	1
2-Fluorobiphenyl	98		42 - 115	11/27/16 17:50	11/29/16 02:31	1
2,4,6-Tribromophenol	91		25 - 130	11/27/16 17:50	11/29/16 02:31	1
Terphenyl-d14	105		25 - 150	11/27/16 17:50	11/29/16 02:31	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.41	J	1.1	0.22	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Arsenic	9.3		0.54	0.25	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Barium	46		0.54	0.099	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Beryllium	0.64		0.22	0.047	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Boron	5.6		2.7	0.38	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Cadmium	0.13		0.11	0.031	mg/Kg	☼	11/26/16 10:35	11/30/16 19:11	1
Calcium	19000	B	11	3.5	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Chromium	18	B	0.54	0.093	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Cobalt	14		0.27	0.061	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Copper	23		0.54	0.12	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Iron	22000	B	11	4.2	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Lead	20		0.27	0.13	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Magnesium	12000	B	5.4	2.2	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Manganese	600	B	0.54	0.11	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Nickel	22	B	0.54	0.15	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Potassium	1700		27	4.4	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Selenium	0.33	J	0.54	0.27	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Sodium	96		54	7.1	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Thallium	1.8		0.54	0.27	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Vanadium	23		0.27	0.079	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1
Zinc	51		1.1	0.34	mg/Kg	☼	11/26/16 10:35	11/29/16 15:41	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.31	J	0.50	0.050	mg/L	☼	11/29/16 14:33	11/30/16 18:15	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	☼	11/29/16 14:33	11/30/16 18:15	1
Boron	0.052	J	0.50	0.050	mg/L	☼	11/29/16 14:33	11/30/16 18:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B06 (0-4)

Lab Sample ID: 500-120540-12

Date Collected: 11/22/16 10:30

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	—	11/29/16 14:33	11/30/16 18:15	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 18:15	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 18:15	1
Iron	<0.40		0.40	0.20	mg/L	—	11/29/16 14:33	11/30/16 18:15	1
Lead	<0.0075		0.0075	0.0075	mg/L	—	11/29/16 14:33	11/30/16 18:15	1
Manganese	0.12		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 18:15	1
Nickel	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 18:15	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/29/16 14:33	11/30/16 18:15	1
Silver	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 18:15	1
Zinc	0.021	J B	0.50	0.020	mg/L	—	11/29/16 14:33	11/30/16 18:15	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	—	11/29/16 14:33	11/30/16 13:41	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/29/16 14:33	11/30/16 13:41	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	—	11/29/16 12:45	11/30/16 09:27	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.029		0.018	0.0092	mg/Kg	☼	11/25/16 15:00	11/28/16 13:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.5		0.2	0.2	SU	—		11/25/16 16:43	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B05 (0-2)

Lab Sample ID: 500-120540-14

Date Collected: 11/22/16 10:50

Matrix: Solid

Date Received: 11/22/16 16:32

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	0.0070	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Carbon disulfide	<0.0040		0.0040	0.00084	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
1,2-Dichloroethane	<0.0040		0.0040	0.0013	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Ethylbenzene	<0.0016		0.0016	0.00077	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
2-Hexanone	<0.0040		0.0040	0.0013	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
1,1,1,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00071	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Vinyl acetate	<0.0040		0.0040	0.0014	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Vinyl chloride	<0.0016		0.0016	0.00071	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1
Xylenes, Total	<0.0032		0.0032	0.00052	mg/Kg	☼	11/22/16 17:05	11/29/16 15:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 120	11/22/16 17:05	11/29/16 15:08	1
Dibromofluoromethane	113		75 - 120	11/22/16 17:05	11/29/16 15:08	1
1,2-Dichloroethane-d4 (Surr)	109		69 - 134	11/22/16 17:05	11/29/16 15:08	1
Toluene-d8 (Surr)	107		75 - 123	11/22/16 17:05	11/29/16 15:08	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	☼	11/27/16 17:50	11/29/16 03:21	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B05 (0-2)

Lab Sample ID: 500-120540-14

Date Collected: 11/22/16 10:50

Matrix: Solid

Date Received: 11/22/16 16:32

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	☼	11/27/16 17:50	11/29/16 03:21	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Hexachlorobenzene	<0.079		0.079	0.0090	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Phenanthrene	<0.039		0.039	0.0054	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Fluoranthene	<0.039		0.039	0.0072	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B05 (0-2)

Lab Sample ID: 500-120540-14

Date Collected: 11/22/16 10:50

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 83.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/27/16 17:50	11/29/16 03:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	87		40 - 130	11/27/16 17:50	11/29/16 03:21	1
Phenol-d5	80		36 - 123	11/27/16 17:50	11/29/16 03:21	1
Nitrobenzene-d5	79		33 - 124	11/27/16 17:50	11/29/16 03:21	1
2-Fluorobiphenyl	78		42 - 115	11/27/16 17:50	11/29/16 03:21	1
2,4,6-Tribromophenol	117		25 - 130	11/27/16 17:50	11/29/16 03:21	1
Terphenyl-d14	110		25 - 150	11/27/16 17:50	11/29/16 03:21	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.31	J	1.2	0.24	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Arsenic	7.2		0.58	0.27	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Barium	69		0.58	0.11	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Beryllium	0.63		0.23	0.051	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Boron	2.4	J	2.9	0.41	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Cadmium	0.11	J	0.12	0.034	mg/Kg	☼	11/26/16 10:35	11/30/16 19:31	1
Calcium	2100	B	12	3.8	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Chromium	17	B	0.58	0.10	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Cobalt	12		0.29	0.066	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Copper	14		0.58	0.13	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Iron	20000	B	12	4.5	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Lead	14		0.29	0.15	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Magnesium	3500	B	5.8	2.4	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Manganese	730	B	0.58	0.12	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Nickel	18	B	0.58	0.16	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Potassium	950		29	4.8	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Selenium	0.61		0.58	0.29	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Sodium	95		58	7.7	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Thallium	1.9		0.58	0.29	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Vanadium	24		0.29	0.085	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1
Zinc	38		1.2	0.37	mg/Kg	☼	11/26/16 10:35	11/29/16 16:24	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.12	J	0.50	0.050	mg/L	☼	11/29/16 14:33	11/30/16 18:28	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	☼	11/29/16 14:33	11/30/16 18:28	1
Boron	<0.50		0.50	0.050	mg/L	☼	11/29/16 14:33	11/30/16 18:28	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B05 (0-2)

Lab Sample ID: 500-120540-14

Date Collected: 11/22/16 10:50

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 83.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	—	11/29/16 14:33	11/30/16 18:28	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 18:28	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 18:28	1
Iron	<0.40		0.40	0.20	mg/L	—	11/29/16 14:33	11/30/16 18:28	1
Lead	<0.0075		0.0075	0.0075	mg/L	—	11/29/16 14:33	11/30/16 18:28	1
Manganese	0.020	J	0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 18:28	1
Nickel	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 18:28	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/29/16 14:33	11/30/16 18:28	1
Silver	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 18:28	1
Zinc	0.026	J B	0.50	0.020	mg/L	—	11/29/16 14:33	11/30/16 18:28	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	—	11/29/16 14:33	11/30/16 14:42	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/29/16 14:33	11/30/16 14:42	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	—	11/29/16 12:45	11/30/16 09:30	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032		0.020	0.010	mg/Kg	☼	11/25/16 15:00	11/28/16 13:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.2		0.2	0.2	SU	—		11/25/16 16:51	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B02 (0-2)

Lab Sample ID: 500-120540-16

Date Collected: 11/22/16 12:00

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.020		0.020	0.0086	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Benzene	<0.0020		0.0020	0.00050	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Bromomethane	<0.0049		0.0049	0.0019	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
2-Butanone (MEK)	<0.0049		0.0049	0.0022	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Carbon tetrachloride	<0.0020		0.0020	0.00057	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Chlorobenzene	<0.0020		0.0020	0.00073	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Chloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Chloroform	<0.0020		0.0020	0.00068	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00059	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Dibromochloromethane	<0.0020		0.0020	0.00064	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
1,1-Dichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
1,1-Dichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00069	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Ethylbenzene	<0.0020		0.0020	0.00094	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0015	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00058	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Styrene	<0.0020		0.0020	0.00059	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Tetrachloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Toluene	<0.0020		0.0020	0.00050	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00087	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00069	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00066	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00084	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Trichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Vinyl acetate	<0.0049		0.0049	0.0017	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Vinyl chloride	<0.0020		0.0020	0.00087	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1
Xylenes, Total	<0.0039		0.0039	0.00063	mg/Kg	☼	11/22/16 17:05	11/29/16 15:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 120	11/22/16 17:05	11/29/16 15:58	1
Dibromofluoromethane	116		75 - 120	11/22/16 17:05	11/29/16 15:58	1
1,2-Dichloroethane-d4 (Surr)	126		69 - 134	11/22/16 17:05	11/29/16 15:58	1
Toluene-d8 (Surr)	115		75 - 123	11/22/16 17:05	11/29/16 15:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.055	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B02 (0-2)

Lab Sample ID: 500-120540-16

Date Collected: 11/22/16 12:00

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Isophorone	<0.19		0.19	0.041	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
2-Methylnaphthalene	<0.074		0.074	0.0068	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Acenaphthylene	0.0059	J	0.037	0.0049	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Acenaphthene	<0.037		0.037	0.0066	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Hexachlorobenzene	<0.074		0.074	0.0086	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.30	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Phenanthrene	0.041		0.037	0.0051	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Anthracene	0.0073	J	0.037	0.0062	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Carbazole	<0.19		0.19	0.092	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Fluoranthene	0.086		0.037	0.0068	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Pyrene	0.081		0.037	0.0073	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Benzo[a]anthracene	0.039		0.037	0.0050	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B02 (0-2)

Lab Sample ID: 500-120540-16

Date Collected: 11/22/16 12:00

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.055		0.037	0.010	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Bis(2-ethylhexyl) phthalate	0.076	J	0.19	0.067	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Benzo[b]fluoranthene	0.083		0.037	0.0080	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Benzo[k]fluoranthene	0.029	J	0.037	0.011	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Benzo[a]pyrene	0.048		0.037	0.0071	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Indeno[1,2,3-cd]pyrene	0.032	J	0.037	0.0096	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0071	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
Benzo[g,h,i]perylene	0.032	J	0.037	0.012	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	11/27/16 17:50	11/29/16 04:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	74		40 - 130	11/27/16 17:50	11/29/16 04:11	1
Phenol-d5	70		36 - 123	11/27/16 17:50	11/29/16 04:11	1
Nitrobenzene-d5	68		33 - 124	11/27/16 17:50	11/29/16 04:11	1
2-Fluorobiphenyl	70		42 - 115	11/27/16 17:50	11/29/16 04:11	1
2,4,6-Tribromophenol	91		25 - 130	11/27/16 17:50	11/29/16 04:11	1
Terphenyl-d14	110		25 - 150	11/27/16 17:50	11/29/16 04:11	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.31	J	1.1	0.23	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	1
Arsenic	5.6		0.54	0.25	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	1
Barium	37		0.54	0.099	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	1
Beryllium	0.41		0.22	0.047	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	1
Boron	5.6		2.7	0.38	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	1
Cadmium	0.39		0.11	0.031	mg/Kg	☼	11/26/16 10:35	11/30/16 19:45	1
Calcium	100000	B	110	35	mg/Kg	☼	11/26/16 10:35	11/30/16 19:49	10
Chromium	15	B	0.54	0.093	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	1
Cobalt	7.5		0.27	0.061	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	1
Copper	24		0.54	0.12	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	1
Iron	14000	B	11	4.2	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	1
Lead	93		0.27	0.14	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	1
Magnesium	37000	B	5.4	2.2	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	1
Manganese	560	B	0.54	0.11	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	1
Nickel	14	B	0.54	0.15	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	1
Potassium	1100		27	4.4	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	1
Selenium	<0.54		0.54	0.27	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	1
Sodium	1900		54	7.2	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	1
Thallium	1.4		0.54	0.27	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	1
Vanadium	16		0.27	0.079	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	1
Zinc	88		1.1	0.34	mg/Kg	☼	11/26/16 10:35	11/29/16 16:38	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	☼	11/29/16 14:33	11/30/16 18:58	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	☼	11/29/16 14:33	11/30/16 18:58	1
Boron	0.084	J	0.50	0.050	mg/L	☼	11/29/16 14:33	11/30/16 18:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B02 (0-2)

Lab Sample ID: 500-120540-16

Date Collected: 11/22/16 12:00

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	—	11/29/16 14:33	11/30/16 18:58	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 18:58	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 18:58	1
Iron	<0.40		0.40	0.20	mg/L	—	11/29/16 14:33	11/30/16 18:58	1
Lead	<0.0075		0.0075	0.0075	mg/L	—	11/29/16 14:33	11/30/16 18:58	1
Manganese	0.31		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 18:58	1
Nickel	0.010	J	0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 18:58	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/29/16 14:33	11/30/16 18:58	1
Silver	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 18:58	1
Zinc	0.052	J B	0.50	0.020	mg/L	—	11/29/16 14:33	11/30/16 18:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	2.3		0.025	0.010	mg/L	—	11/29/16 14:28	11/30/16 23:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	—	11/29/16 14:33	11/30/16 14:49	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/29/16 14:33	11/30/16 14:49	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	—	11/29/16 12:45	11/30/16 09:32	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.035		0.018	0.0097	mg/Kg	☼	11/25/16 15:00	11/28/16 14:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.8		0.2	0.2	SU	—		11/25/16 16:59	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B01 (0-3)

Lab Sample ID: 500-120540-17

Date Collected: 11/22/16 12:15

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.029		0.016	0.0072	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Benzene	<0.0016		0.0016	0.00042	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Bromodichloromethane	<0.0016		0.0016	0.00034	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Bromomethane	<0.0041		0.0041	0.0016	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Carbon disulfide	<0.0041		0.0041	0.00086	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Carbon tetrachloride	<0.0016		0.0016	0.00048	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Chlorobenzene	<0.0016		0.0016	0.00061	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Chloroform	<0.0016		0.0016	0.00057	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Chloromethane	<0.0041		0.0041	0.0017	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00046	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00050	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Dibromochloromethane	<0.0016		0.0016	0.00054	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
1,1-Dichloroethene	<0.0016		0.0016	0.00057	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
1,2-Dichloropropane	<0.0016		0.0016	0.00043	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00058	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Ethylbenzene	<0.0016		0.0016	0.00079	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Styrene	<0.0016		0.0016	0.00050	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
1,1,1,2-Tetrachloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Tetrachloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Toluene	<0.0016		0.0016	0.00042	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00073	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00058	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00071	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Trichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Vinyl chloride	<0.0016		0.0016	0.00073	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	11/22/16 17:05	11/29/16 16:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 120	11/22/16 17:05	11/29/16 16:24	1
Dibromofluoromethane	111		75 - 120	11/22/16 17:05	11/29/16 16:24	1
1,2-Dichloroethane-d4 (Surr)	109		69 - 134	11/22/16 17:05	11/29/16 16:24	1
Toluene-d8 (Surr)	106		75 - 123	11/22/16 17:05	11/29/16 16:24	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	☼	11/27/16 17:50	11/29/16 04:36	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B01 (0-3)

Lab Sample ID: 500-120540-17

Date Collected: 11/22/16 12:15

Matrix: Solid

Date Received: 11/22/16 16:32

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	☼	11/27/16 17:50	11/29/16 04:36	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
2-Methylnaphthalene	<0.076		0.076	0.0069	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Acenaphthylene	0.012	J	0.037	0.0049	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Phenanthrene	0.027	J	0.037	0.0052	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Anthracene	0.0093	J	0.037	0.0063	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Fluoranthene	0.078		0.037	0.0070	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Pyrene	0.072		0.037	0.0075	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Benzo[a]anthracene	0.046		0.037	0.0050	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B01 (0-3)

Lab Sample ID: 500-120540-17

Date Collected: 11/22/16 12:15

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.057		0.037	0.010	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Benzo[b]fluoranthene	0.091		0.037	0.0081	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Benzo[k]fluoranthene	0.045		0.037	0.011	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Benzo[a]pyrene	0.055		0.037	0.0073	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Indeno[1,2,3-cd]pyrene	0.031	J	0.037	0.0097	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
Benzo[g,h,i]perylene	0.033	J	0.037	0.012	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	11/27/16 17:50	11/29/16 04:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	73		40 - 130	11/27/16 17:50	11/29/16 04:36	1
Phenol-d5	69		36 - 123	11/27/16 17:50	11/29/16 04:36	1
Nitrobenzene-d5	65		33 - 124	11/27/16 17:50	11/29/16 04:36	1
2-Fluorobiphenyl	67		42 - 115	11/27/16 17:50	11/29/16 04:36	1
2,4,6-Tribromophenol	100		25 - 130	11/27/16 17:50	11/29/16 04:36	1
Terphenyl-d14	100		25 - 150	11/27/16 17:50	11/29/16 04:36	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.32	J	1.2	0.24	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Arsenic	6.6		0.58	0.27	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Barium	56		0.58	0.11	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Beryllium	0.58		0.23	0.050	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Boron	7.4		2.9	0.40	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Cadmium	0.24		0.12	0.033	mg/Kg	☼	11/26/16 10:35	11/30/16 19:53	1
Calcium	52000	B	12	3.7	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Chromium	16	B	0.58	0.099	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Cobalt	8.4		0.29	0.065	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Copper	24		0.58	0.12	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Iron	17000	B	12	4.4	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Lead	49		0.29	0.14	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Magnesium	30000	B	5.8	2.3	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Manganese	460	B	0.58	0.11	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Nickel	19	B	0.58	0.16	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Potassium	1500		29	4.7	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Selenium	<0.58		0.58	0.28	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Silver	<0.29		0.29	0.067	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Sodium	2700		58	7.6	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Thallium	1.4		0.58	0.28	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Vanadium	20		0.29	0.084	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	1
Zinc	61		1.2	0.36	mg/Kg	☼	11/26/16 10:35	11/29/16 16:44	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	☼	11/29/16 14:33	11/30/16 19:05	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	☼	11/29/16 14:33	11/30/16 19:05	1
Boron	0.088	J	0.50	0.050	mg/L	☼	11/29/16 14:33	11/30/16 19:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Client Sample ID: 1806V-61-B01 (0-3)

Lab Sample ID: 500-120540-17

Date Collected: 11/22/16 12:15

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 83.8

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	—	11/29/16 14:33	11/30/16 19:05	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 19:05	1
Cobalt	0.044		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 19:05	1
Iron	0.26	J	0.40	0.20	mg/L	—	11/29/16 14:33	11/30/16 19:05	1
Lead	0.037		0.0075	0.0075	mg/L	—	11/29/16 14:33	11/30/16 19:05	1
Manganese	9.8		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 19:05	1
Nickel	0.027		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 19:05	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/29/16 14:33	11/30/16 19:05	1
Silver	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 19:05	1
Zinc	0.095	J B	0.50	0.020	mg/L	—	11/29/16 14:33	11/30/16 19:05	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.51		0.0075	0.0075	mg/L	—	11/29/16 14:28	12/01/16 00:04	1
Manganese	3.8		0.025	0.010	mg/L	—	11/29/16 14:28	12/01/16 00:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	—	11/29/16 14:33	11/30/16 14:53	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/29/16 14:33	11/30/16 14:53	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	—	11/29/16 12:45	11/30/16 09:34	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.022		0.017	0.0091	mg/Kg	☼	11/25/16 15:00	11/28/16 14:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.8		0.2	0.2	SU	—		11/25/16 17:03	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits

GC/MS Semi VOA

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

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.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC 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.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-4

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-17

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 #: 500-120540

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: 4.05.5

Client		Client Project #		Preservative		Parameter		Comments		
Project Name		Project Location/State		Lab Project #		Lab PM		Preservative Key		
Sampler		Sample ID		Sampling		# of Containers		Matrix		
Lab ID	MS/MSD	Date	Time							
7	A	1806V-61-B09(0-1)	11-22-16 08:05	S	S	Ph	SUOC	VOC	TCIP	METALS
8	5	1806V-61-B07(0-1)	11-22-16 09:00	S	S					
9	6	1806V-61-B08(0-1)	11-22-16 09:10	S	S					
10	7	1806V-61-B04(0-5)	11-22-16 10:10	S	S					
4	8	1806V-61-B04(0-5-11)	11-22-16 10:20	S	S					
12	9	1806V-61-B06(0-4)	11-22-16 10:30	S	S					
13	10	1806V-61-B03(0-5)	11-22-16 11:30	S	S					
14	11	1806V-61-B03(0-2)	11-22-16 10:30	S	S					
15	12	1806V-61-B03(0-5-11)	11-22-16 11:40	S	S					
16	13	1806V-61-B02(0-2)	11-22-16 12:00	S	S					
17	14	1806V-61-B01(0-3)	11-22-16 12:15	S	S					

Turnaround Time Required (Business Days)

Requested Due Date _____
1 Day 2 Days 5 Days 7 Days 10 Days 15 Days Other

Sample Disposal

☐ Return to Client

☐ Disposal by Lab

☐ Archive for _____ Months

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

Relinquished By Edna Dora EDI Company EDI Date 11-22-16 Time 14:01
Relinquished By P. Neal TA Company TA Date 11/22/16 Time 16:32

Received By P. Neal Company TA Date 11/22/16 Time 14:55
Received By Christina Company TA Date 11/22/16 Time 16:32

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: 500-120540-4

Login Number: 120540

List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel M

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	4.0,5.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
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 $<6\text{mm}$ (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: FAU 2711 (IL Route 131) Office Phone Number, if available: _____

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

40065 N. Kenosha Road (ISGS #1806V-62)

City: Beach Park State: IL Zip Code: 60099

County: Lake Township: Benton

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

Latitude: 42.444600° Longitude: -87.874852°

(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: FAU 2711 (IL Route 131)Latitude: 42.444600° Longitude: -87.874852°

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 1086V-62-B02 was sampled within the construction zone adjacent to ISGS #1806V-62 (Farmstead). Refer to PSI Report for ISGS #1806V-62 (Farmstead) including Table 4-4, and Figure 4-7.

- 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 J120540-3.

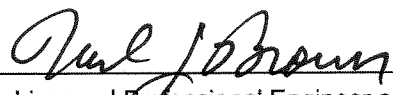
IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

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

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

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

Printed Name:



Licensed Professional Engineer or
Licensed Professional Geologist Signature:

2-1-2017

Date:



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

Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-228-14; WorkOrder #20

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

= pH is less than 6.25 or greater than 9.0 standard units.

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

r = Concentration exceeds a TACO Tier 1 RO for residential soil exposure.

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 applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #1806V-62 (Farmstead)	Comparison Criteria					
BORING	1806V-62-B02	MACs			TACO		
SAMPLE	1806V-62-B02 (0-3)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil						
DEPTH (feet)	0-3						
pH	8.8						
VOCs (None Detected)							
SVOCs (mg/kg)							
Benzo(a)anthracene	0.025 J	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.035 J	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.053	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.029 J	--	--	--	--	--	--
Benzo(k)fluoranthene	0.02 J	9	--	--	1.7	1,700	--
Chrysene	0.035 J	88	--	--	88	17,000	--
Fluoranthene	0.048	3100	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.026 J	0.9	1.6	0.9	1.6	170	--
Phenanthrene	0.016 J	--	--	--	--	--	--
Pyrene	0.058	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)							
Antimony	0.32 J	5	--	--	31	82	0.006
Arsenic	6.7	11.3	13	--	13	61	0.05
Barium	63	1,500	--	--	5,500	14,000	2
Beryllium	0.57	22	--	--	160	410	0.004
Boron	7.7	40	--	--	16,000	41,000	2
Cadmium	0.26	5.2	--	--	78	200	0.005
Calcium	46,000	--	--	--	--	--	--
Chromium	18	21	--	--	230	690	0.1
Cobalt	7.7	20	--	--	4,700	12,000	1
Copper	25	2,900	--	--	2,900	8,200	0.65
Iron	18,000 †m	15,000	15,900	--	--	--	5
Lead	90	107	--	--	400	700	0.0075
Magnesium	28,000	325,000	--	--	--	730,000	--
Manganese	510	630	636	--	1,600	4,100	0.15
Mercury	0.015 J	0.89	--	--	10	0.1	0.002
Nickel	21	100	--	--	1,600	4,100	0.1
Potassium	1,800	--	--	--	--	--	--
Sodium	2,600	--	--	--	--	--	--
Thallium	1.4	2.6	--	--	6.3	160	0.002
Vanadium	20	550	--	--	550	1,400	0.049
Zinc	75	5,100	--	--	23,000	61,000	5
TCLP Metals (mg/L)							
Barium	0.4 J	--	--	--	--	--	2
Boron	0.091 J	--	--	--	--	--	2
Iron	ND U	--	--	--	--	--	5
Lead	0.0076 L	--	--	--	--	--	0.0075
Manganese	1.1 L	--	--	--	--	--	0.15
Nickel	0.013 J	--	--	--	--	--	0.1
SPLP Metals (mg/L)							
Iron	NA	--	--	--	--	--	5
Lead	0.43 L	--	--	--	--	--	0.0075
Manganese	1.9 L	--	--	--	--	--	0.15

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-120540-3

Client Project/Site: IDOT - IL 131 - WO 020

For:

Ecology and Environment, Inc.

33 West Monroe St.

Suite 1410

Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:

12/2/2016 4:58:52 PM

Jodie Bracken, Project Management Assistant II

jodie.bracken@testamericainc.com

Designee for

Richard Wright, Senior Project Manager

(708)534-5200

richard.wright@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

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

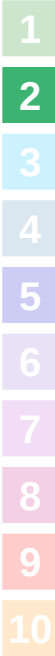


Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	6
Client Sample Results	7
Definitions	15
Certification Summary	16
Chain of Custody	17
Receipt Checklists	18

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-3

Job ID: 500-120540-3

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-120540-3

Comments

No additional comments.

Receipt

The samples were received on 11/22/2016 4:32 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.0° C and 5.5° C.

GC/MS VOA

Method(s) 8260B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 500-362636 recovered outside control limits for the following analytes: 2-Hexanone and 4-Methyl-2-Pentanone.

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 base/neutral surrogate outside acceptance limits: 1806V-62-B01 (1-2) (500-120540-5). 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 - IL 131 - WO 020

TestAmerica Job ID: 500-120540-3

Client Sample ID: 1806V-62-B01 (1-2)

Lab Sample ID: 500-120540-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acenaphthylene	0.0080	J	0.036	0.0047	mg/Kg	1	1	☼	8270D	Total/NA
Fluorene	0.0081	J	0.036	0.0050	mg/Kg	1	1	☼	8270D	Total/NA
Phenanthrene	0.093		0.036	0.0050	mg/Kg	1	1	☼	8270D	Total/NA
Anthracene	0.018	J	0.036	0.0060	mg/Kg	1	1	☼	8270D	Total/NA
Fluoranthene	0.17		0.036	0.0066	mg/Kg	1	1	☼	8270D	Total/NA
Pyrene	0.24		0.036	0.0071	mg/Kg	1	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.092		0.036	0.0048	mg/Kg	1	1	☼	8270D	Total/NA
Chrysene	0.12		0.036	0.0098	mg/Kg	1	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.15		0.036	0.0077	mg/Kg	1	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.066		0.036	0.011	mg/Kg	1	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.10		0.036	0.0069	mg/Kg	1	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.065		0.036	0.0093	mg/Kg	1	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.10		0.036	0.012	mg/Kg	1	1	☼	8270D	Total/NA
Antimony	0.29	J	1.0	0.21	mg/Kg	1	1	☼	6010B	Total/NA
Arsenic	5.2		0.52	0.24	mg/Kg	1	1	☼	6010B	Total/NA
Barium	27		0.52	0.095	mg/Kg	1	1	☼	6010B	Total/NA
Beryllium	0.31		0.21	0.045	mg/Kg	1	1	☼	6010B	Total/NA
Boron	7.3		2.6	0.36	mg/Kg	1	1	☼	6010B	Total/NA
Cadmium	0.21		0.10	0.030	mg/Kg	1	1	☼	6010B	Total/NA
Calcium	140000	B	100	33	mg/Kg	10	1	☼	6010B	Total/NA
Chromium	9.5	B	0.52	0.089	mg/Kg	1	1	☼	6010B	Total/NA
Cobalt	5.1		0.26	0.058	mg/Kg	1	1	☼	6010B	Total/NA
Copper	15		0.52	0.11	mg/Kg	1	1	☼	6010B	Total/NA
Iron	12000	B	10	4.0	mg/Kg	1	1	☼	6010B	Total/NA
Lead	23		0.26	0.13	mg/Kg	1	1	☼	6010B	Total/NA
Magnesium	49000	B	5.2	2.1	mg/Kg	1	1	☼	6010B	Total/NA
Manganese	640	B	0.52	0.10	mg/Kg	1	1	☼	6010B	Total/NA
Nickel	12	B	0.52	0.14	mg/Kg	1	1	☼	6010B	Total/NA
Potassium	1100		26	4.2	mg/Kg	1	1	☼	6010B	Total/NA
Sodium	730		52	6.8	mg/Kg	1	1	☼	6010B	Total/NA
Thallium	1.3		0.52	0.25	mg/Kg	1	1	☼	6010B	Total/NA
Vanadium	14		0.26	0.075	mg/Kg	1	1	☼	6010B	Total/NA
Zinc	43		1.0	0.33	mg/Kg	1	1	☼	6010B	Total/NA
Barium	0.33	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.061	J	0.50	0.050	mg/L	1			6010B	TCLP
Manganese	0.74		0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.032	J B	0.50	0.020	mg/L	1			6010B	TCLP
Manganese	0.66		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.016	J	0.017	0.0089	mg/Kg	1	1	☼	7471B	Total/NA
pH	9.1		0.2	0.2	SU	1			9045D	Total/NA

Client Sample ID: 1806V-62-B02 (0-3)

Lab Sample ID: 500-120540-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Phenanthrene	0.016	J	0.038	0.0054	mg/Kg	1	☆	8270D	Total/NA	
Fluoranthene	0.048		0.038	0.0072	mg/Kg	1	☆	8270D	Total/NA	
Pyrene	0.058		0.038	0.0077	mg/Kg	1	☆	8270D	Total/NA	
Benzo[a]anthracene	0.025	J	0.038	0.0052	mg/Kg	1	☆	8270D	Total/NA	
Chrysene	0.035	J	0.038	0.011	mg/Kg	1	☆	8270D	Total/NA	
Benzo[b]fluoranthene	0.053		0.038	0.0083	mg/Kg	1	☆	8270D	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-3

Client Sample ID: 1806V-62-B02 (0-3) (Continued)

Lab Sample ID: 500-120540-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzo[k]fluoranthene	0.020	J	0.038	0.011	mg/Kg	1		✱	8270D	Total/NA
Benzo[a]pyrene	0.035	J	0.038	0.0075	mg/Kg	1		✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.026	J	0.038	0.010	mg/Kg	1		✱	8270D	Total/NA
Benzo[g,h,i]perylene	0.029	J	0.038	0.012	mg/Kg	1		✱	8270D	Total/NA
Antimony	0.32	J	1.2	0.24	mg/Kg	1		✱	6010B	Total/NA
Arsenic	6.7		0.58	0.27	mg/Kg	1		✱	6010B	Total/NA
Barium	63		0.58	0.11	mg/Kg	1		✱	6010B	Total/NA
Beryllium	0.57		0.23	0.051	mg/Kg	1		✱	6010B	Total/NA
Boron	7.7		2.9	0.41	mg/Kg	1		✱	6010B	Total/NA
Cadmium	0.26		0.12	0.034	mg/Kg	1		✱	6010B	Total/NA
Calcium	46000	B	12	3.8	mg/Kg	1		✱	6010B	Total/NA
Chromium	18	B	0.58	0.10	mg/Kg	1		✱	6010B	Total/NA
Cobalt	7.7		0.29	0.066	mg/Kg	1		✱	6010B	Total/NA
Copper	25		0.58	0.13	mg/Kg	1		✱	6010B	Total/NA
Iron	18000	B	12	4.5	mg/Kg	1		✱	6010B	Total/NA
Lead	90		0.29	0.15	mg/Kg	1		✱	6010B	Total/NA
Magnesium	28000	B	5.8	2.4	mg/Kg	1		✱	6010B	Total/NA
Manganese	510	B	0.58	0.12	mg/Kg	1		✱	6010B	Total/NA
Nickel	21	B	0.58	0.16	mg/Kg	1		✱	6010B	Total/NA
Potassium	1800		29	4.8	mg/Kg	1		✱	6010B	Total/NA
Sodium	2600		58	7.7	mg/Kg	1		✱	6010B	Total/NA
Thallium	1.4		0.58	0.29	mg/Kg	1		✱	6010B	Total/NA
Vanadium	20		0.29	0.085	mg/Kg	1		✱	6010B	Total/NA
Zinc	75		1.2	0.37	mg/Kg	1		✱	6010B	Total/NA
Barium	0.40	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.091	J	0.50	0.050	mg/L	1			6010B	TCLP
Lead	0.0076		0.0075	0.0075	mg/L	1			6010B	TCLP
Manganese	1.1		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.013	J	0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.040	J B	0.50	0.020	mg/L	1			6010B	TCLP
Lead	0.43		0.0075	0.0075	mg/L	1			6010B	SPLP East
Manganese	1.9		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.015	J	0.019	0.0098	mg/Kg	1		✱	7471B	Total/NA
pH	8.8		0.2	0.2	SU	1			9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-120540-6	1806V-62-B02 (0-3)	Solid	11/22/16 12:30	11/22/16 16:32

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-3

Client Sample ID: 1806V-62-B02 (0-3)

Lab Sample ID: 500-120540-6

Date Collected: 11/22/16 12:30

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 82.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0078	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Carbon disulfide	<0.0045		0.0045	0.00093	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
2-Hexanone	<0.0045 *		0.0045	0.0014	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
4-Methyl-2-pentanone (MIBK)	<0.0045 *		0.0045	0.0013	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Vinyl acetate	<0.0045		0.0045	0.0016	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	11/22/16 17:05	11/29/16 07:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 120	11/22/16 17:05	11/29/16 07:20	1
Dibromofluoromethane	108		75 - 120	11/22/16 17:05	11/29/16 07:20	1
1,2-Dichloroethane-d4 (Surr)	108		69 - 134	11/22/16 17:05	11/29/16 07:20	1
Toluene-d8 (Surr)	105		75 - 123	11/22/16 17:05	11/29/16 07:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.086	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-3

Client Sample ID: 1806V-62-B02 (0-3)

Lab Sample ID: 500-120540-6

Date Collected: 11/22/16 12:30

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 82.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Phenanthrene	0.016	J	0.038	0.0054	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Fluoranthene	0.048		0.038	0.0072	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Pyrene	0.058		0.038	0.0077	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Benzo[a]anthracene	0.025	J	0.038	0.0052	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-3

Client Sample ID: 1806V-62-B02 (0-3)

Lab Sample ID: 500-120540-6

Date Collected: 11/22/16 12:30

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 82.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.035	J	0.038	0.011	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Benzo[b]fluoranthene	0.053		0.038	0.0083	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Benzo[k]fluoranthene	0.020	J	0.038	0.011	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Benzo[a]pyrene	0.035	J	0.038	0.0075	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Indeno[1,2,3-cd]pyrene	0.026	J	0.038	0.010	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0075	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
Benzo[g,h,i]perylene	0.029	J	0.038	0.012	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	11/27/16 17:50	11/29/16 02:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	58		40 - 130	11/27/16 17:50	11/29/16 02:56	1
Phenol-d5	74		36 - 123	11/27/16 17:50	11/29/16 02:56	1
Nitrobenzene-d5	74		33 - 124	11/27/16 17:50	11/29/16 02:56	1
2-Fluorobiphenyl	75		42 - 115	11/27/16 17:50	11/29/16 02:56	1
2,4,6-Tribromophenol	56		25 - 130	11/27/16 17:50	11/29/16 02:56	1
Terphenyl-d14	139		25 - 150	11/27/16 17:50	11/29/16 02:56	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.32	J	1.2	0.24	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	1
Arsenic	6.7		0.58	0.27	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	1
Barium	63		0.58	0.11	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	1
Beryllium	0.57		0.23	0.051	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	1
Boron	7.7		2.9	0.41	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	1
Cadmium	0.26		0.12	0.034	mg/Kg	☼	11/26/16 10:35	11/30/16 18:36	1
Calcium	46000	B	12	3.8	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	1
Chromium	18	B	0.58	0.10	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	1
Cobalt	7.7		0.29	0.066	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	1
Copper	25		0.58	0.13	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	1
Iron	18000	B	12	4.5	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	1
Lead	90		0.29	0.15	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	1
Magnesium	28000	B	5.8	2.4	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	1
Manganese	510	B	0.58	0.12	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	1
Nickel	21	B	0.58	0.16	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	1
Potassium	1800		29	4.8	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	1
Selenium	<0.58		0.58	0.29	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	1
Sodium	2600		58	7.7	mg/Kg	☼	11/26/16 10:35	11/30/16 18:36	1
Thallium	1.4		0.58	0.29	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	1
Vanadium	20		0.29	0.085	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	1
Zinc	75		1.2	0.37	mg/Kg	☼	11/26/16 10:35	11/29/16 14:44	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	☼	11/29/16 14:33	11/30/16 17:10	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	☼	11/29/16 14:33	11/30/16 17:10	1
Boron	0.091	J	0.50	0.050	mg/L	☼	11/29/16 14:33	11/30/16 17:10	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-3

Client Sample ID: 1806V-62-B02 (0-3)

Lab Sample ID: 500-120540-6

Date Collected: 11/22/16 12:30

Matrix: Solid

Date Received: 11/22/16 16:32

Percent Solids: 82.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	—	11/29/16 14:33	11/30/16 17:10	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:10	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:10	1
Iron	<0.40		0.40	0.20	mg/L	—	11/29/16 14:33	11/30/16 17:10	1
Lead	0.0076		0.0075	0.0075	mg/L	—	11/29/16 14:33	11/30/16 17:10	1
Manganese	1.1		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:10	1
Nickel	0.013	J	0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:10	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/29/16 14:33	11/30/16 17:10	1
Silver	<0.025		0.025	0.010	mg/L	—	11/29/16 14:33	11/30/16 17:10	1
Zinc	0.040	J B	0.50	0.020	mg/L	—	11/29/16 14:33	11/30/16 17:10	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.43		0.0075	0.0075	mg/L	—	11/29/16 14:28	11/30/16 22:34	1
Manganese	1.9		0.025	0.010	mg/L	—	11/29/16 14:28	11/30/16 22:34	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	—	11/29/16 14:33	11/30/16 13:17	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/29/16 14:33	11/30/16 13:17	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	—	11/29/16 12:45	11/30/16 09:15	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	J	0.019	0.0098	mg/Kg	☼	11/25/16 15:00	11/28/16 13:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.8		0.2	0.2	SU	—		11/25/16 16:20	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-3

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits

GC/MS Semi VOA

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

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120540-3

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-17

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

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-120540-3

Login Number: 120540

List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel M

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	4.0,5.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
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 $<6\text{mm}$ (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: FAU 2711 (IL Route 131) Office Phone Number, if available: _____

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

40020 N. Green Bay Road (ISGS #1806V-65)

City: Beach Park State: IL Zip Code: 60099

County: Lake Township: Benton

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

Latitude: 42.443343° Longitude: -87.876428°

(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: FAU 2711 (IL Route 131)Latitude: 42.443343° Longitude: -87.876428°

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 1086V-65-B01 and -B02 were sampled within the construction zone adjacent to ISGS #1806V-65 (Benton Township Office). Refer to PSI Report for ISGS #1806V-65 (Benton Township Office) including Table 4-4, 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 J120488-3.

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

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

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

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

Neil J. Brown

Printed Name:

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

2-1-17
 Date:



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

Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-228-14; WorkOrder #20

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

= pH is less than 6.25 or greater than 9.0 standard units.

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

r = Concentration exceeds a TACO Tier 1 RO for residential soil exposure.

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 applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #1806V-65 (Benton Township Office)		Comparison Criteria						
BORING	1806V-65-B01	1806V-65-B02	MACs			TACO			
SAMPLE	1806V-65-B01 (1-2)	1806V-65-B02 (1-2)	Most Stringent	Within an MSA	Within Chicago		Residential	Construction Worker	SCGIER
MATRIX	Soil	Soil							
DEPTH (feet)	1-2	1-2							
pH	8.9	7.9							
VOCs (None Detected)									
SVOCs (mg/kg)									
Benzo(a)anthracene	ND U	0.023 J	0.9	1.8	1.1	1.8	170	--	
Benzo(a)pyrene	ND U	0.035 J	0.09	2.1	1.3	2.1	17	--	
Benzo(b)fluoranthene	0.013 J	0.072	0.9	2.1	1.5	2.1	170	--	
Benzo(g,h,i)perylene	0.014 J	0.031 J	--	--	--	--	--	--	
Benzo(k)fluoranthene	ND U	0.017 J	9	--	--	1.7	1,700	--	
Chrysene	ND U	0.04	88	--	--	88	17,000	--	
Fluoranthene	ND U	0.055	3100	--	--	3,100	82,000	--	
Indeno(1,2,3-cd)pyrene	ND U	0.03 J	0.9	1.6	0.9	1.6	170	--	
Phenanthrene	ND U	0.021 J	--	--	--	--	--	--	
Pyrene	ND U	0.048	2,300	--	--	2,300	61,000	--	
Inorganics (mg/kg)									
Antimony	0.6 J	0.31 J	5	--	--	31	82	0.006	
Arsenic	6.9	5.4	11.3	13	--	13	61	0.05	
Barium	57	67	1,500	--	--	5,500	14,000	2	
Beryllium	0.81	0.72	22	--	--	160	410	0.004	
Boron	7.1	3.6	40	--	--	16,000	41,000	2	
Cadmium	0.22	0.25	5.2	--	--	78	200	0.005	
Calcium	32,000	8,100	--	--	--	--	--	--	
Chromium	23 †	20	21	--	--	230	690	0.1	
Cobalt	11	12	20	--	--	4,700	12,000	1	
Copper	22	18	2,900	--	--	2,900	8,200	0.65	
Iron	21,000 †m	18,000 †m	15,000	15,900	--	--	--	5	
Lead	14	23	107	--	--	400	700	0.0075	
Magnesium	21,000	6,600	325,000	--	--	--	730,000	--	
Manganese	320	470	630	636	--	1,600	4,100	0.15	
Mercury	0.026	0.044	0.89	--	--	10	0.1	0.002	
Nickel	34	26	100	--	--	1,600	4,100	0.1	
Potassium	2,000	1,400	--	--	--	--	--	--	
Selenium	0.38 J	0.54 J	1.3	--	--	390	1,000	0.05	
Sodium	1,800	1,500	--	--	--	--	--	--	
Vanadium	23	23	550	--	--	550	1,400	0.049	
Zinc	69	67	5,100	--	--	23,000	61,000	5	
TCLP Metals (mg/L)									
Barium	0.45 J	0.26 J	--	--	--	--	--	2	
Boron	0.59	0.47 J	--	--	--	--	--	2	
Cadmium	0.002 J	ND U	--	--	--	--	--	0.005	
Chromium	ND U	ND U	--	--	--	--	--	0.1	
Iron	ND U	ND U	--	--	--	--	--	5	
Manganese	0.58 L	0.77 L	--	--	--	--	--	0.15	
SPLP Metals (mg/L)									
Manganese	0.92 L	0.34 L	--	--	--	--	--	0.15	

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-120488-3

Client Project/Site: IDOT - IL 131 - WO 020

For:

Ecology and Environment, Inc.

33 West Monroe St.

Suite 1410

Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:

11/30/2016 4:27:54 PM

Jodie Bracken, Project Management Assistant II

jodie.bracken@testamericainc.com

Designee for

Richard Wright, Senior Project Manager

(708)534-5200

richard.wright@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

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

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	6
Client Sample Results	7
Definitions	15
Certification Summary	16
Chain of Custody	17
Receipt Checklists	18



Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-3

Job ID: 500-120488-3

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-120488-3

Comments

No additional comments.

Receipt

The samples were received on 11/21/2016 3:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 5.2° C and 5.7° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described 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 - IL 131 - WO 020

TestAmerica Job ID: 500-120488-3

Client Sample ID: 1806V-65-B01 (1-2)

Lab Sample ID: 500-120488-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.013	J	0.039	0.0085	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	0.60	J	1.1	0.24	mg/Kg	1	☆	6010B	Total/NA	
Arsenic	6.9		0.57	0.26	mg/Kg	1	☆	6010B	Total/NA	
Barium	57		0.57	0.10	mg/Kg	1	☆	6010B	Total/NA	
Beryllium	0.81		0.23	0.050	mg/Kg	1	☆	6010B	Total/NA	
Boron	7.1		2.9	0.40	mg/Kg	1	☆	6010B	Total/NA	
Cadmium	0.22		0.11	0.033	mg/Kg	1	☆	6010B	Total/NA	
Calcium	32000		11	3.7	mg/Kg	1	☆	6010B	Total/NA	
Chromium	23	B	0.57	0.099	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	21000		11	4.4	mg/Kg	1	☆	6010B	Total/NA	
Lead	14		0.29	0.14	mg/Kg	1	☆	6010B	Total/NA	
Magnesium	21000		5.7	2.3	mg/Kg	1	☆	6010B	Total/NA	
Manganese	320		0.57	0.11	mg/Kg	1	☆	6010B	Total/NA	
Nickel	34		0.57	0.16	mg/Kg	1	☆	6010B	Total/NA	
Potassium	2000		29	4.7	mg/Kg	1	☆	6010B	Total/NA	
Selenium	0.38	J	0.57	0.28	mg/Kg	1	☆	6010B	Total/NA	
Sodium	1800		57	7.6	mg/Kg	1	☆	6010B	Total/NA	
Vanadium	23		0.29	0.084	mg/Kg	1	☆	6010B	Total/NA	
Zinc	69	B	1.1	0.36	mg/Kg	1	☆	6010B	Total/NA	
Barium	0.45	J	0.50	0.050	mg/L	1		6010B	TCLP	
Boron	0.59		0.50	0.050	mg/L	1		6010B	TCLP	
Cadmium	0.0020	J	0.0050	0.0020	mg/L	1		6010B	TCLP	
Manganese	0.58		0.025	0.010	mg/L	1		6010B	TCLP	
Zinc	0.035	J B	0.50	0.020	mg/L	1		6010B	TCLP	
Manganese	0.92		0.025	0.010	mg/L	1		6010B	SPLP East	
Mercury	0.026		0.019	0.010	mg/Kg	1	☆	7471B	Total/NA	
pH	8.9		0.2	0.2	SU	1		9045D	Total/NA	

Client Sample ID: 1806V-65-B02 (1-2)

Lab Sample ID: 500-120488-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Phenanthrene	0.021	J	0.040	0.0057	mg/Kg	1	☆	8270D	Total/NA	
Fluoranthene	0.055		0.040	0.0075	mg/Kg	1	☆	8270D	Total/NA	
Pyrene	0.048		0.040	0.0081	mg/Kg	1	☆	8270D	Total/NA	
Benzo[a]anthracene	0.023	J	0.040	0.0055	mg/Kg	1	☆	8270D	Total/NA	
Chrysene	0.040		0.040	0.011	mg/Kg	1	☆	8270D	Total/NA	
Benzo[b]fluoranthene	0.072		0.040	0.0088	mg/Kg	1	☆	8270D	Total/NA	
Benzo[k]fluoranthene	0.017	J	0.040	0.012	mg/Kg	1	☆	8270D	Total/NA	
Benzo[a]pyrene	0.035	J	0.040	0.0079	mg/Kg	1	☆	8270D	Total/NA	
Indeno[1,2,3-cd]pyrene	0.030	J	0.040	0.011	mg/Kg	1	☆	8270D	Total/NA	
Benzo[g,h,i]perylene	0.031	J	0.040	0.013	mg/Kg	1	☆	8270D	Total/NA	
Antimony	0.31	J	1.2	0.25	mg/Kg	1	☆	6010B	Total/NA	
Arsenic	5.4		0.60	0.28	mg/Kg	1	☆	6010B	Total/NA	
Barium	67		0.60	0.11	mg/Kg	1	☆	6010B	Total/NA	
Beryllium	0.72		0.24	0.052	mg/Kg	1	☆	6010B	Total/NA	
Boron	3.6		3.0	0.42	mg/Kg	1	☆	6010B	Total/NA	
Cadmium	0.25		0.12	0.035	mg/Kg	1	☆	6010B	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-3

Client Sample ID: 1806V-65-B02 (1-2) (Continued)

Lab Sample ID: 500-120488-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Calcium	8100		12	3.9	mg/Kg	1		✱	6010B	Total/NA
Chromium	20	B	0.60	0.10	mg/Kg	1		✱	6010B	Total/NA
Cobalt	12		0.30	0.068	mg/Kg	1		✱	6010B	Total/NA
Copper	18		0.60	0.13	mg/Kg	1		✱	6010B	Total/NA
Iron	18000		12	4.6	mg/Kg	1		✱	6010B	Total/NA
Lead	23		0.30	0.15	mg/Kg	1		✱	6010B	Total/NA
Magnesium	6600		6.0	2.4	mg/Kg	1		✱	6010B	Total/NA
Manganese	470		0.60	0.12	mg/Kg	1		✱	6010B	Total/NA
Nickel	26		0.60	0.16	mg/Kg	1		✱	6010B	Total/NA
Potassium	1400		30	4.9	mg/Kg	1		✱	6010B	Total/NA
Selenium	0.54	J	0.60	0.30	mg/Kg	1		✱	6010B	Total/NA
Sodium	1500		60	7.9	mg/Kg	1		✱	6010B	Total/NA
Vanadium	23		0.30	0.088	mg/Kg	1		✱	6010B	Total/NA
Zinc	67	B	1.2	0.38	mg/Kg	1		✱	6010B	Total/NA
Barium	0.26	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.47	J	0.50	0.050	mg/L	1			6010B	TCLP
Manganese	0.77		0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.10	J B	0.50	0.020	mg/L	1			6010B	TCLP
Manganese	0.34		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.044		0.020	0.010	mg/Kg	1		✱	7471B	Total/NA
pH	7.9		0.2	0.2	SU	1			9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-120488-10	1806V-65-B01 (1-2)	Solid	11/21/16 10:00	11/21/16 15:45
500-120488-11	1806V-65-B02 (1-2)	Solid	11/21/16 10:15	11/21/16 15:45

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-3

Client Sample ID: 1806V-65-B01 (1-2)

Lab Sample ID: 500-120488-10

Date Collected: 11/21/16 10:00

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 81.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0086	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Benzene	<0.0020		0.0020	0.00050	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Bromomethane	<0.0049		0.0049	0.0019	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
2-Butanone (MEK)	<0.0049		0.0049	0.0022	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Carbon tetrachloride	<0.0020		0.0020	0.00057	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Chlorobenzene	<0.0020		0.0020	0.00073	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Chloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
1,1-Dichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
1,1-Dichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00069	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Ethylbenzene	<0.0020		0.0020	0.00095	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0015	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00058	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Tetrachloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Toluene	<0.0020		0.0020	0.00050	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00088	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00069	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00066	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00085	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Trichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Vinyl acetate	<0.0049		0.0049	0.0017	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Vinyl chloride	<0.0020		0.0020	0.00087	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1
Xylenes, Total	<0.0040		0.0040	0.00063	mg/Kg	☼	11/21/16 17:05	11/28/16 18:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 120	11/21/16 17:05	11/28/16 18:27	1
Dibromofluoromethane	111		75 - 120	11/21/16 17:05	11/28/16 18:27	1
1,2-Dichloroethane-d4 (Surr)	112		69 - 134	11/21/16 17:05	11/28/16 18:27	1
Toluene-d8 (Surr)	108		75 - 123	11/21/16 17:05	11/28/16 18:27	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	☼	11/27/16 10:14	11/28/16 11:32	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-3

Client Sample ID: 1806V-65-B01 (1-2)

Lab Sample ID: 500-120488-10

Date Collected: 11/21/16 10:00

Matrix: Solid

Date Received: 11/21/16 15:45

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	0.047	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
2,4-Dinitrophenol	<0.79	*	0.79	0.69	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Phenanthrene	<0.039		0.039	0.0055	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Carbazole	<0.20	*	0.20	0.098	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-3

Client Sample ID: 1806V-65-B01 (1-2)

Lab Sample ID: 500-120488-10

Date Collected: 11/21/16 10:00

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 81.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Benzo[b]fluoranthene	0.013	J	0.039	0.0085	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
Benzo[g,h,i]perylene	0.014	J	0.039	0.013	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/27/16 10:14	11/28/16 11:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	104		40 - 130	11/27/16 10:14	11/28/16 11:32	1
Phenol-d5	97		36 - 123	11/27/16 10:14	11/28/16 11:32	1
Nitrobenzene-d5	96		33 - 124	11/27/16 10:14	11/28/16 11:32	1
2-Fluorobiphenyl	107		42 - 115	11/27/16 10:14	11/28/16 11:32	1
2,4,6-Tribromophenol	88		25 - 130	11/27/16 10:14	11/28/16 11:32	1
Terphenyl-d14	125		25 - 150	11/27/16 10:14	11/28/16 11:32	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.60	J	1.1	0.24	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Arsenic	6.9		0.57	0.26	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Barium	57		0.57	0.10	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Beryllium	0.81		0.23	0.050	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Boron	7.1		2.9	0.40	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Cadmium	0.22		0.11	0.033	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Calcium	32000		11	3.7	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Chromium	23	B	0.57	0.099	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Cobalt	11		0.29	0.065	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Copper	22		0.57	0.12	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Iron	21000		11	4.4	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Lead	14		0.29	0.14	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Magnesium	21000		5.7	2.3	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Manganese	320		0.57	0.11	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Nickel	34		0.57	0.16	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Potassium	2000		29	4.7	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Selenium	0.38	J	0.57	0.28	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Silver	<0.29		0.29	0.067	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Sodium	1800		57	7.6	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Vanadium	23		0.29	0.084	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	1
Zinc	69	B	1.1	0.36	mg/Kg	☼	11/25/16 15:29	11/28/16 15:34	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	☼	11/27/16 11:56	11/27/16 23:22	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	☼	11/27/16 11:56	11/27/16 23:22	1
Boron	0.59		0.50	0.050	mg/L	☼	11/27/16 11:56	11/27/16 23:22	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-3

Client Sample ID: 1806V-65-B01 (1-2)

Lab Sample ID: 500-120488-10

Date Collected: 11/21/16 10:00

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 81.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0020	J	0.0050	0.0020	mg/L	—	11/27/16 11:56	11/27/16 23:22	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:22	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:22	1
Iron	<0.40		0.40	0.20	mg/L	—	11/27/16 11:56	11/27/16 23:22	1
Lead	<0.0075		0.0075	0.0075	mg/L	—	11/29/16 10:19	11/29/16 22:52	1
Manganese	0.58		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:22	1
Nickel	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:22	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/27/16 11:56	11/27/16 23:22	1
Silver	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:22	1
Zinc	0.035	J B	0.50	0.020	mg/L	—	11/27/16 11:56	11/27/16 23:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.92		0.025	0.010	mg/L	—	11/28/16 08:17	11/29/16 01:39	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	—	11/27/16 11:56	11/28/16 22:47	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/27/16 11:56	11/28/16 22:47	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	—	11/28/16 13:00	11/29/16 11:42	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.019	0.010	mg/Kg	☼	11/23/16 07:45	11/23/16 10:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.9		0.2	0.2	SU	—		11/23/16 17:04	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-3

Client Sample ID: 1806V-65-B02 (1-2)

Lab Sample ID: 500-120488-11

Date Collected: 11/21/16 10:15

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 78.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.027		0.027	0.012	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Benzene	<0.0027		0.0027	0.00068	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Bromodichloromethane	<0.0027		0.0027	0.00054	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Bromoform	<0.0027		0.0027	0.00078	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Bromomethane	<0.0067		0.0067	0.0025	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
2-Butanone (MEK)	<0.0067		0.0067	0.0030	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Carbon disulfide	<0.0067		0.0067	0.0014	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Carbon tetrachloride	<0.0027		0.0027	0.00077	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Chlorobenzene	<0.0027		0.0027	0.00099	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Chloroethane	<0.0067		0.0067	0.0020	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Chloroform	<0.0027		0.0027	0.00093	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Chloromethane	<0.0067		0.0067	0.0027	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
cis-1,2-Dichloroethene	<0.0027		0.0027	0.00075	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
cis-1,3-Dichloropropene	<0.0027		0.0027	0.00080	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Dibromochloromethane	<0.0027		0.0027	0.00087	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
1,1-Dichloroethane	<0.0027		0.0027	0.00091	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
1,2-Dichloroethane	<0.0067		0.0067	0.0021	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
1,1-Dichloroethene	<0.0027		0.0027	0.00092	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
1,2-Dichloropropane	<0.0027		0.0027	0.00069	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
1,3-Dichloropropene, Total	<0.0027		0.0027	0.00094	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Ethylbenzene	<0.0027		0.0027	0.0013	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
2-Hexanone	<0.0067		0.0067	0.0021	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Methylene Chloride	<0.0067		0.0067	0.0026	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
4-Methyl-2-pentanone (MIBK)	<0.0067		0.0067	0.0020	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Methyl tert-butyl ether	<0.0027		0.0027	0.00078	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Styrene	<0.0027		0.0027	0.00081	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
1,1,1,2-Tetrachloroethane	<0.0027		0.0027	0.00085	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Tetrachloroethene	<0.0027		0.0027	0.00091	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Toluene	<0.0027		0.0027	0.00067	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
trans-1,2-Dichloroethene	<0.0027		0.0027	0.0012	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
trans-1,3-Dichloropropene	<0.0027		0.0027	0.00094	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
1,1,1-Trichloroethane	<0.0027		0.0027	0.00090	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
1,1,2-Trichloroethane	<0.0027		0.0027	0.0011	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Trichloroethene	<0.0027		0.0027	0.00090	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Vinyl acetate	<0.0067		0.0067	0.0023	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Vinyl chloride	<0.0027		0.0027	0.0012	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1
Xylenes, Total	<0.0053		0.0053	0.00085	mg/Kg	☼	11/21/16 17:05	11/28/16 18:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 120	11/21/16 17:05	11/28/16 18:52	1
Dibromofluoromethane	108		75 - 120	11/21/16 17:05	11/28/16 18:52	1
1,2-Dichloroethane-d4 (Surr)	108		69 - 134	11/21/16 17:05	11/28/16 18:52	1
Toluene-d8 (Surr)	103		75 - 123	11/21/16 17:05	11/28/16 18:52	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	☼	11/27/16 10:14	11/28/16 13:32	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-3

Client Sample ID: 1806V-65-B02 (1-2)

Lab Sample ID: 500-120488-11

Date Collected: 11/21/16 10:15

Matrix: Solid

Date Received: 11/21/16 15:45

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	<0.20		0.20	0.049	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.042	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Naphthalene	<0.040		0.040	0.0063	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
2,4-Dichlorophenol	<0.40		0.40	0.097	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
2,4,5-Trichlorophenol	<0.40		0.40	0.093	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
2-Methylnaphthalene	<0.082		0.082	0.0075	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
2,4-Dinitrophenol	<0.82	*	0.82	0.72	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Acenaphthylene	<0.040		0.040	0.0054	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
2,4-Dinitrotoluene	<0.20		0.20	0.065	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Dibenzofuran	<0.20		0.20	0.048	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.054	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.048	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Phenanthrene	0.021	J	0.040	0.0057	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Carbazole	<0.20	*	0.20	0.10	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Fluoranthene	0.055		0.040	0.0075	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Pyrene	0.048		0.040	0.0081	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Benzo[a]anthracene	0.023	J	0.040	0.0055	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-3

Client Sample ID: 1806V-65-B02 (1-2)

Lab Sample ID: 500-120488-11

Date Collected: 11/21/16 10:15

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 78.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.040		0.040	0.011	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Benzo[b]fluoranthene	0.072		0.040	0.0088	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Benzo[k]fluoranthene	0.017 J		0.040	0.012	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Benzo[a]pyrene	0.035 J		0.040	0.0079	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Indeno[1,2,3-cd]pyrene	0.030 J		0.040	0.011	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0079	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
Benzo[g,h,i]perylene	0.031 J		0.040	0.013	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	11/27/16 10:14	11/28/16 13:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	105		40 - 130	11/27/16 10:14	11/28/16 13:32	1
Phenol-d5	91		36 - 123	11/27/16 10:14	11/28/16 13:32	1
Nitrobenzene-d5	98		33 - 124	11/27/16 10:14	11/28/16 13:32	1
2-Fluorobiphenyl	88		42 - 115	11/27/16 10:14	11/28/16 13:32	1
2,4,6-Tribromophenol	126		25 - 130	11/27/16 10:14	11/28/16 13:32	1
Terphenyl-d14	124		25 - 150	11/27/16 10:14	11/28/16 13:32	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.31 J		1.2	0.25	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Arsenic	5.4		0.60	0.28	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Barium	67		0.60	0.11	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Beryllium	0.72		0.24	0.052	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Boron	3.6		3.0	0.42	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Cadmium	0.25		0.12	0.035	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Calcium	8100		12	3.9	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Chromium	20 B		0.60	0.10	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Cobalt	12		0.30	0.068	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Copper	18		0.60	0.13	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Iron	18000		12	4.6	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Lead	23		0.30	0.15	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Magnesium	6600		6.0	2.4	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Manganese	470		0.60	0.12	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Nickel	26		0.60	0.16	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Potassium	1400		30	4.9	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Selenium	0.54 J		0.60	0.30	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Sodium	1500		60	7.9	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Vanadium	23		0.30	0.088	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1
Zinc	67 B		1.2	0.38	mg/Kg	☼	11/25/16 15:29	11/28/16 15:39	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.26 J		0.50	0.050	mg/L	☼	11/27/16 11:56	11/27/16 23:27	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	☼	11/27/16 11:56	11/27/16 23:27	1
Boron	0.47 J		0.50	0.050	mg/L	☼	11/27/16 11:56	11/27/16 23:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-3

Client Sample ID: 1806V-65-B02 (1-2)

Lab Sample ID: 500-120488-11

Date Collected: 11/21/16 10:15

Matrix: Solid

Date Received: 11/21/16 15:45

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	—	11/27/16 11:56	11/27/16 23:27	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:27	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:27	1
Iron	<0.40		0.40	0.20	mg/L	—	11/27/16 11:56	11/27/16 23:27	1
Lead	<0.0075		0.0075	0.0075	mg/L	—	11/29/16 10:19	11/29/16 22:59	1
Manganese	0.77		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:27	1
Nickel	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:27	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/27/16 11:56	11/27/16 23:27	1
Silver	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:27	1
Zinc	0.10	J B	0.50	0.020	mg/L	—	11/27/16 11:56	11/27/16 23:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.34		0.025	0.010	mg/L	—	11/28/16 08:17	11/29/16 01:46	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	—	11/27/16 11:56	11/28/16 22:50	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/27/16 11:56	11/28/16 22:50	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	—	11/28/16 13:00	11/29/16 11:43	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.044		0.020	0.010	mg/Kg	☼	11/23/16 07:45	11/23/16 10:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.2	0.2	SU	—		11/23/16 17:08	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-3

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
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-3

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-17

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

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-120488-3

Login Number: 120488

List Source: TestAmerica Chicago

List Number: 1

Creator: James, Jeff A

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	5.7, 5.2
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 $<6\text{mm}$ (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: FAU 2711 (IL Route 131) Office Phone Number, if available: _____

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

40023 N. Green Bay Road (ISGS #1806V-66)

City: Beach Park State: IL Zip Code: 60099

County: Lake Township: Benton

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

Latitude: 42.443247° Longitude: -87.875378°

(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: FAU 2711 (IL Route 131)Latitude: 42.443247° Longitude: -87.875378°

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 1086V-66-B01, -B02 and -B03 were sampled within the construction zone adjacent to ISGS #1806V-66 (Parking Lot). Refer to PSI Report for ISGS #1806V-66 (Parking Lot) including Table 4-4, 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 J120488-4.

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

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

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

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

Printed Name:



Licensed Professional Engineer or
Licensed Professional Geologist Signature:

2-1-2017

Date:



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

Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-228-14; WorkOrder #20

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

= pH is less than 6.25 or greater than 9.0 standard units.

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

r = Concentration exceeds a TACO Tier 1 RO for residential soil exposure.

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 applicable comparison criteria.

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-228-14; WorkOrder #20
CONTAMINANTS OF CONCERN

SITE	ISGS #1806V-66 (Parking Lot)			Comparison Criteria					
BORING	1806V-66-B01	1806V-66-B02	1806V-66-B03	MACs			TACO		
SAMPLE	1806V-66-B01 (0-1)	1806V-66-B02 (2-3)	1806V-66-B03 (1-2)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil	Soil	Soil						
DEPTH (feet)	0-1	2-3	1-2						
pH	8.4	8.6	8.6						
VOCs (None Detected)									
SVOCs (mg/kg)									
2-Methylnaphthalene	ND U	ND U	0.02 J	--	--	--	--	--	--
Acenaphthylene	0.0073 J	0.016 J	0.066 J	--	--	--	--	--	--
Anthracene	0.022 J	0.022 J	0.042	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.19	0.1	0.19	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.25 †	0.11 †	0.21 †	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.45	0.18	0.43	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.15	0.071	0.1 J	--	--	--	--	--	--
Benzo(k)fluoranthene	0.13	0.068	0.15	9	--	--	1.7	1,700	--
Chrysene	0.25	0.12	0.23	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.04	0.021 J	0.032 J	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.47	0.22	0.32	3100	--	--	3,100	82,000	--
Fluorene	0.0063 J	0.0069 J	0.0063 J	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.15	0.067	0.11	0.9	1.6	0.9	1.6	170	--
Naphthalene	ND U	ND U	0.015 J	1.8	--	--	170	1.8	--
Phenanthrene	0.17	0.1	0.1	--	--	--	--	--	--
Pyrene	0.39	0.18	0.27	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)									
Antimony	0.36 J	0.63 J	0.63 J	5	--	--	31	82	0.006
Arsenic	5.7	6.1	5.8	11.3	13	--	13	61	0.05
Barium	59	42	58	1,500	--	--	5,500	14,000	2
Beryllium	0.66	0.57	0.63	22	--	--	160	410	0.004
Boron	5	7.8	7.2	40	--	--	16,000	41,000	2
Cadmium	0.35	0.26	0.34	5.2	--	--	78	200	0.005
Calcium	30,000	95,000	66,000	--	--	--	--	--	--
Chromium	17	18	19	21	--	--	230	690	0.1
Cobalt	11	9.4	9.8	20	--	--	4,700	12,000	1
Copper	18	19	22	2,900	--	--	2,900	8,200	0.65
Iron	16,000 †m	16,000 †m	17,000 †m	15,000	15,900	--	--	--	5
Lead	34	19	87	107	--	--	400	700	0.0075
Magnesium	15,000	31,000	23,000	325,000	--	--	--	730,000	--
Manganese	460	390	420	630	636	--	1,600	4,100	0.15
Mercury	0.033	0.029	0.045	0.89	--	--	10	0.1	0.002
Nickel	24	25	27	100	--	--	1,600	4,100	0.1
Potassium	1,400	1,800	1,600	--	--	--	--	--	--
Selenium	0.58	0.39 J	0.43 J	1.3	--	--	390	1,000	0.05
Sodium	520	720	1,400	--	--	--	--	--	--
Vanadium	21	20	20	550	--	--	550	1,400	0.049
Zinc	110	74	94	5,100	--	--	23,000	61,000	5
TCLP Metals (mg/L)									
Barium	0.4 J	0.37 J	0.5	--	--	--	--	--	2
Boron	0.51	0.42 J	0.39 J	--	--	--	--	--	2
Cadmium	0.0024 J	0.0029 J	0.0032 J	--	--	--	--	--	0.005
Iron	ND U	ND U	ND U	--	--	--	--	--	5
Manganese	1 L	0.84 L	0.65 L	--	--	--	--	--	0.15
Nickel	ND U	0.013 J	0.014 J	--	--	--	--	--	0.1
SPLP Metals (mg/L)									
Manganese	0.4 L	0.71 L	0.57 L	--	--	--	--	--	0.15

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-120488-4

Client Project/Site: IDOT - IL 131 - WO 020

For:

Ecology and Environment, Inc.

33 West Monroe St.

Suite 1410

Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:

11/30/2016 4:28:46 PM

Jodie Bracken, Project Management Assistant II

jodie.bracken@testamericainc.com

Designee for

Richard Wright, Senior Project Manager

(708)534-5200

richard.wright@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

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

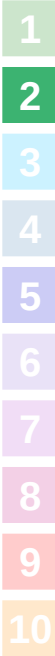


Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	7
Client Sample Results	8
Definitions	20
Certification Summary	21
Chain of Custody	22
Receipt Checklists	23

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-4

Job ID: 500-120488-4

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-120488-4

Comments

No additional comments.

Receipt

The samples were received on 11/21/2016 3:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 5.2° C and 5.7° C.

GC/MS VOA

Method(s) 8260B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 500-362636 recovered outside control limits for the following analytes: 2-Hexanone and 4-Methyl-2-Pentanone.

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

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one acid surrogate outside acceptance limits: 1806V-66-B03 (1-2) (500-120488-14). 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 following matrix spike/matrix spike duplicate (MS/MSD) recovered at 0% for one or more analytes. Data has been qualified and reported. (500-120488-E-14-F MS) and (500-120488-E-14-G MS)

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

Metals

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

General Chemistry

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

Organic Prep

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

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-4

Client Sample ID: 1806V-66-B01 (0-1)

Lab Sample ID: 500-120488-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acenaphthylene	0.0073	J	0.039	0.0052	mg/Kg	1	✱	8270D	Total/NA	
Fluorene	0.0063	J	0.039	0.0055	mg/Kg	1	✱	8270D	Total/NA	
Phenanthrene	0.17		0.039	0.0055	mg/Kg	1	✱	8270D	Total/NA	
Anthracene	0.022	J	0.039	0.0065	mg/Kg	1	✱	8270D	Total/NA	
Fluoranthene	0.47		0.039	0.0073	mg/Kg	1	✱	8270D	Total/NA	
Pyrene	0.39		0.039	0.0078	mg/Kg	1	✱	8270D	Total/NA	
Benzo[a]anthracene	0.19		0.039	0.0053	mg/Kg	1	✱	8270D	Total/NA	
Chrysene	0.25		0.039	0.011	mg/Kg	1	✱	8270D	Total/NA	
Benzo[b]fluoranthene	0.45		0.039	0.0084	mg/Kg	1	✱	8270D	Total/NA	
Benzo[k]fluoranthene	0.13		0.039	0.012	mg/Kg	1	✱	8270D	Total/NA	
Benzo[a]pyrene	0.25		0.039	0.0076	mg/Kg	1	✱	8270D	Total/NA	
Indeno[1,2,3-cd]pyrene	0.15		0.039	0.010	mg/Kg	1	✱	8270D	Total/NA	
Dibenz(a,h)anthracene	0.040		0.039	0.0076	mg/Kg	1	✱	8270D	Total/NA	
Benzo[g,h,i]perylene	0.15		0.039	0.013	mg/Kg	1	✱	8270D	Total/NA	
Antimony	0.36	J	1.1	0.24	mg/Kg	1	✱	6010B	Total/NA	
Arsenic	5.7		0.57	0.26	mg/Kg	1	✱	6010B	Total/NA	
Barium	59		0.57	0.10	mg/Kg	1	✱	6010B	Total/NA	
Beryllium	0.66		0.23	0.049	mg/Kg	1	✱	6010B	Total/NA	
Boron	5.0		2.8	0.40	mg/Kg	1	✱	6010B	Total/NA	
Cadmium	0.35		0.11	0.033	mg/Kg	1	✱	6010B	Total/NA	
Calcium	30000		11	3.7	mg/Kg	1	✱	6010B	Total/NA	
Chromium	17	B	0.57	0.098	mg/Kg	1	✱	6010B	Total/NA	
Cobalt	11		0.28	0.064	mg/Kg	1	✱	6010B	Total/NA	
Copper	18		0.57	0.12	mg/Kg	1	✱	6010B	Total/NA	
Iron	16000		11	4.4	mg/Kg	1	✱	6010B	Total/NA	
Lead	34		0.28	0.14	mg/Kg	1	✱	6010B	Total/NA	
Magnesium	15000		5.7	2.3	mg/Kg	1	✱	6010B	Total/NA	
Manganese	460		0.57	0.11	mg/Kg	1	✱	6010B	Total/NA	
Nickel	24		0.57	0.15	mg/Kg	1	✱	6010B	Total/NA	
Potassium	1400		28	4.6	mg/Kg	1	✱	6010B	Total/NA	
Selenium	0.58		0.57	0.28	mg/Kg	1	✱	6010B	Total/NA	
Sodium	520		57	7.5	mg/Kg	1	✱	6010B	Total/NA	
Vanadium	21		0.28	0.083	mg/Kg	1	✱	6010B	Total/NA	
Zinc	110	B	1.1	0.36	mg/Kg	1	✱	6010B	Total/NA	
Barium	0.40	J	0.50	0.050	mg/L	1		6010B	TCLP	
Boron	0.51		0.50	0.050	mg/L	1		6010B	TCLP	
Cadmium	0.0024	J	0.0050	0.0020	mg/L	1		6010B	TCLP	
Manganese	1.0		0.025	0.010	mg/L	1		6010B	TCLP	
Zinc	0.075	J B	0.50	0.020	mg/L	1		6010B	TCLP	
Manganese	0.40		0.025	0.010	mg/L	1		6010B	SPLP East	
Mercury	0.033		0.017	0.0090	mg/Kg	1	✱	7471B	Total/NA	
pH	8.4		0.2	0.2	SU	1		9045D	Total/NA	

Client Sample ID: 1806V-66-B02 (2-3)

Lab Sample ID: 500-120488-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acenaphthylene	0.016	J	0.038	0.0051	mg/Kg	1	✱	8270D	Total/NA	
Fluorene	0.0069	J	0.038	0.0054	mg/Kg	1	✱	8270D	Total/NA	
Phenanthrene	0.10		0.038	0.0054	mg/Kg	1	✱	8270D	Total/NA	
Anthracene	0.022	J	0.038	0.0065	mg/Kg	1	✱	8270D	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-4

Client Sample ID: 1806V-66-B02 (2-3) (Continued)

Lab Sample ID: 500-120488-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Fluoranthene	0.22		0.038	0.0072	mg/Kg	1		✱	8270D	Total/NA
Pyrene	0.18		0.038	0.0077	mg/Kg	1		✱	8270D	Total/NA
Benzo[a]anthracene	0.10		0.038	0.0052	mg/Kg	1		✱	8270D	Total/NA
Chrysene	0.12		0.038	0.011	mg/Kg	1		✱	8270D	Total/NA
Benzo[b]fluoranthene	0.18		0.038	0.0084	mg/Kg	1		✱	8270D	Total/NA
Benzo[k]fluoranthene	0.068		0.038	0.011	mg/Kg	1		✱	8270D	Total/NA
Benzo[a]pyrene	0.11		0.038	0.0075	mg/Kg	1		✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.067		0.038	0.010	mg/Kg	1		✱	8270D	Total/NA
Dibenz(a,h)anthracene	0.021	J	0.038	0.0075	mg/Kg	1		✱	8270D	Total/NA
Benzo[g,h,i]perylene	0.071		0.038	0.012	mg/Kg	1		✱	8270D	Total/NA
Antimony	0.63	J	1.2	0.25	mg/Kg	1		✱	6010B	Total/NA
Arsenic	6.1		0.60	0.28	mg/Kg	1		✱	6010B	Total/NA
Barium	42		0.60	0.11	mg/Kg	1		✱	6010B	Total/NA
Beryllium	0.57		0.24	0.052	mg/Kg	1		✱	6010B	Total/NA
Boron	7.8		3.0	0.42	mg/Kg	1		✱	6010B	Total/NA
Cadmium	0.26		0.12	0.035	mg/Kg	1		✱	6010B	Total/NA
Calcium	95000		120	38	mg/Kg	10		✱	6010B	Total/NA
Chromium	18	B	0.60	0.10	mg/Kg	1		✱	6010B	Total/NA
Cobalt	9.4		0.30	0.067	mg/Kg	1		✱	6010B	Total/NA
Copper	19		0.60	0.13	mg/Kg	1		✱	6010B	Total/NA
Iron	16000		12	4.6	mg/Kg	1		✱	6010B	Total/NA
Lead	19		0.30	0.15	mg/Kg	1		✱	6010B	Total/NA
Magnesium	31000		6.0	2.4	mg/Kg	1		✱	6010B	Total/NA
Manganese	390		0.60	0.12	mg/Kg	1		✱	6010B	Total/NA
Nickel	25		0.60	0.16	mg/Kg	1		✱	6010B	Total/NA
Potassium	1800		30	4.9	mg/Kg	1		✱	6010B	Total/NA
Selenium	0.39	J	0.60	0.30	mg/Kg	1		✱	6010B	Total/NA
Sodium	720		60	7.9	mg/Kg	1		✱	6010B	Total/NA
Vanadium	20		0.30	0.087	mg/Kg	1		✱	6010B	Total/NA
Zinc	74	B	1.2	0.38	mg/Kg	1		✱	6010B	Total/NA
Barium	0.37	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.42	J	0.50	0.050	mg/L	1			6010B	TCLP
Cadmium	0.0029	J	0.0050	0.0020	mg/L	1			6010B	TCLP
Manganese	0.84		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.013	J	0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.042	J B	0.50	0.020	mg/L	1			6010B	TCLP
Manganese	0.71		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.029		0.019	0.010	mg/Kg	1		✱	7471B	Total/NA
pH	8.6		0.2	0.2	SU	1			9045D	Total/NA

Client Sample ID: 1806V-66-B03 (1-2)

Lab Sample ID: 500-120488-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Naphthalene	0.015	J	0.037	0.0058	mg/Kg	1		✱	8270D	Total/NA
2-Methylnaphthalene	0.020	J	0.076	0.0069	mg/Kg	1		✱	8270D	Total/NA
Acenaphthylene	0.066	F1 F2	0.037	0.0049	mg/Kg	1		✱	8270D	Total/NA
Fluorene	0.0063	J	0.037	0.0053	mg/Kg	1		✱	8270D	Total/NA
Phenanthrene	0.10		0.037	0.0052	mg/Kg	1		✱	8270D	Total/NA
Anthracene	0.042		0.037	0.0063	mg/Kg	1		✱	8270D	Total/NA
Fluoranthene	0.32		0.037	0.0069	mg/Kg	1		✱	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-4

Client Sample ID: 1806V-66-B03 (1-2) (Continued)

Lab Sample ID: 500-120488-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Pyrene	0.27		0.037	0.0074	mg/Kg	1	✱		8270D	Total/NA
Benzo[a]anthracene	0.19		0.037	0.0050	mg/Kg	1	✱		8270D	Total/NA
Chrysene	0.23		0.037	0.010	mg/Kg	1	✱		8270D	Total/NA
Benzo[b]fluoranthene	0.43		0.037	0.0081	mg/Kg	1	✱		8270D	Total/NA
Benzo[k]fluoranthene	0.15		0.037	0.011	mg/Kg	1	✱		8270D	Total/NA
Benzo[a]pyrene	0.21		0.037	0.0072	mg/Kg	1	✱		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.11		0.037	0.0097	mg/Kg	1	✱		8270D	Total/NA
Dibenz(a,h)anthracene	0.032	J F1	0.037	0.0072	mg/Kg	1	✱		8270D	Total/NA
Benzo[g,h,i]perylene	0.10	F1	0.037	0.012	mg/Kg	1	✱		8270D	Total/NA
Antimony	0.63	J	1.1	0.23	mg/Kg	1	✱		6010B	Total/NA
Arsenic	5.8		0.57	0.26	mg/Kg	1	✱		6010B	Total/NA
Barium	58		0.57	0.10	mg/Kg	1	✱		6010B	Total/NA
Beryllium	0.63		0.23	0.049	mg/Kg	1	✱		6010B	Total/NA
Boron	7.2		2.8	0.40	mg/Kg	1	✱		6010B	Total/NA
Cadmium	0.34		0.11	0.033	mg/Kg	1	✱		6010B	Total/NA
Calcium	66000		110	36	mg/Kg	10	✱		6010B	Total/NA
Chromium	19	B	0.57	0.097	mg/Kg	1	✱		6010B	Total/NA
Cobalt	9.8		0.28	0.064	mg/Kg	1	✱		6010B	Total/NA
Copper	22		0.57	0.12	mg/Kg	1	✱		6010B	Total/NA
Iron	17000		11	4.4	mg/Kg	1	✱		6010B	Total/NA
Lead	87		0.28	0.14	mg/Kg	1	✱		6010B	Total/NA
Magnesium	23000		5.7	2.3	mg/Kg	1	✱		6010B	Total/NA
Manganese	420		0.57	0.11	mg/Kg	1	✱		6010B	Total/NA
Nickel	27		0.57	0.15	mg/Kg	1	✱		6010B	Total/NA
Potassium	1600		28	4.6	mg/Kg	1	✱		6010B	Total/NA
Selenium	0.43	J	0.57	0.28	mg/Kg	1	✱		6010B	Total/NA
Sodium	1400		57	7.5	mg/Kg	1	✱		6010B	Total/NA
Vanadium	20		0.28	0.083	mg/Kg	1	✱		6010B	Total/NA
Zinc	94	B	1.1	0.36	mg/Kg	1	✱		6010B	Total/NA
Barium	0.50		0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.39	J	0.50	0.050	mg/L	1			6010B	TCLP
Cadmium	0.0032	J	0.0050	0.0020	mg/L	1			6010B	TCLP
Manganese	0.65		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.014	J	0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.050	J B	0.50	0.020	mg/L	1			6010B	TCLP
Manganese	0.57		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.045		0.018	0.0095	mg/Kg	1	✱		7471B	Total/NA
pH	8.6		0.2	0.2	SU	1			9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-120488-12	1806V-66-B01 (0-1)	Solid	11/21/16 09:30	11/21/16 15:45
500-120488-13	1806V-66-B02 (2-3)	Solid	11/21/16 09:00	11/21/16 15:45
500-120488-14	1806V-66-B03 (1-2)	Solid	11/21/16 09:20	11/21/16 15:45

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-4

Client Sample ID: 1806V-66-B01 (0-1)

Lab Sample ID: 500-120488-12

Date Collected: 11/21/16 09:30

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 83.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.025		0.025	0.011	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Benzene	<0.0025		0.0025	0.00065	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Bromodichloromethane	<0.0025		0.0025	0.00052	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Bromoform	<0.0025		0.0025	0.00074	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Bromomethane	<0.0064		0.0064	0.0024	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
2-Butanone (MEK)	<0.0064		0.0064	0.0028	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Carbon disulfide	<0.0064		0.0064	0.0013	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Carbon tetrachloride	<0.0025		0.0025	0.00074	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Chlorobenzene	<0.0025		0.0025	0.00094	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Chloroethane	<0.0064		0.0064	0.0019	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Chloroform	<0.0025		0.0025	0.00088	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Chloromethane	<0.0064		0.0064	0.0026	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
cis-1,2-Dichloroethene	<0.0025		0.0025	0.00071	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
cis-1,3-Dichloropropene	<0.0025		0.0025	0.00077	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Dibromochloromethane	<0.0025		0.0025	0.00083	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
1,1-Dichloroethane	<0.0025		0.0025	0.00087	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
1,2-Dichloroethane	<0.0064		0.0064	0.0020	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
1,1-Dichloroethene	<0.0025		0.0025	0.00087	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
1,2-Dichloropropane	<0.0025		0.0025	0.00066	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
1,3-Dichloropropene, Total	<0.0025		0.0025	0.00089	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Ethylbenzene	<0.0025		0.0025	0.0012	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
2-Hexanone	<0.0064		0.0064	0.0020	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Methylene Chloride	<0.0064		0.0064	0.0025	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
4-Methyl-2-pentanone (MIBK)	<0.0064		0.0064	0.0019	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Methyl tert-butyl ether	<0.0025		0.0025	0.00075	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Styrene	<0.0025		0.0025	0.00077	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
1,1,1,2-Tetrachloroethane	<0.0025		0.0025	0.00081	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Tetrachloroethene	<0.0025		0.0025	0.00087	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Toluene	<0.0025		0.0025	0.00064	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
trans-1,2-Dichloroethene	<0.0025		0.0025	0.0011	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
trans-1,3-Dichloropropene	<0.0025		0.0025	0.00089	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
1,1,1-Trichloroethane	<0.0025		0.0025	0.00085	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
1,1,2-Trichloroethane	<0.0025		0.0025	0.0011	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Trichloroethene	<0.0025		0.0025	0.00086	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Vinyl acetate	<0.0064		0.0064	0.0022	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Vinyl chloride	<0.0025		0.0025	0.0011	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1
Xylenes, Total	<0.0051		0.0051	0.00081	mg/Kg	☼	11/21/16 17:05	11/28/16 19:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 120	11/21/16 17:05	11/28/16 19:18	1
Dibromofluoromethane	112		75 - 120	11/21/16 17:05	11/28/16 19:18	1
1,2-Dichloroethane-d4 (Surr)	106		69 - 134	11/21/16 17:05	11/28/16 19:18	1
Toluene-d8 (Surr)	111		75 - 123	11/21/16 17:05	11/28/16 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	☼	11/27/16 10:14	11/28/16 14:20	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-4

Client Sample ID: 1806V-66-B01 (0-1)

Lab Sample ID: 500-120488-12

Date Collected: 11/21/16 09:30

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 83.1

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	☼	11/27/16 10:14	11/28/16 14:20	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
2,4-Dinitrophenol	<0.79	*	0.79	0.69	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Acenaphthylene	0.0073	J	0.039	0.0052	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Fluorene	0.0063	J	0.039	0.0055	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Phenanthrene	0.17		0.039	0.0055	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Anthracene	0.022	J	0.039	0.0065	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Carbazole	<0.20	*	0.20	0.098	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Fluoranthene	0.47		0.039	0.0073	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Pyrene	0.39		0.039	0.0078	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Benzo[a]anthracene	0.19		0.039	0.0053	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-4

Client Sample ID: 1806V-66-B01 (0-1)

Lab Sample ID: 500-120488-12

Date Collected: 11/21/16 09:30

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 83.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.25		0.039	0.011	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Benzo[b]fluoranthene	0.45		0.039	0.0084	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Benzo[k]fluoranthene	0.13		0.039	0.012	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Benzo[a]pyrene	0.25		0.039	0.0076	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Indeno[1,2,3-cd]pyrene	0.15		0.039	0.010	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Dibenz(a,h)anthracene	0.040		0.039	0.0076	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
Benzo[g,h,i]perylene	0.15		0.039	0.013	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/27/16 10:14	11/28/16 14:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	90		40 - 130	11/27/16 10:14	11/28/16 14:20	1
Phenol-d5	85		36 - 123	11/27/16 10:14	11/28/16 14:20	1
Nitrobenzene-d5	85		33 - 124	11/27/16 10:14	11/28/16 14:20	1
2-Fluorobiphenyl	97		42 - 115	11/27/16 10:14	11/28/16 14:20	1
2,4,6-Tribromophenol	88		25 - 130	11/27/16 10:14	11/28/16 14:20	1
Terphenyl-d14	117		25 - 150	11/27/16 10:14	11/28/16 14:20	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.36	J	1.1	0.24	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Arsenic	5.7		0.57	0.26	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Barium	59		0.57	0.10	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Beryllium	0.66		0.23	0.049	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Boron	5.0		2.8	0.40	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Cadmium	0.35		0.11	0.033	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Calcium	30000		11	3.7	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Chromium	17	B	0.57	0.098	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Cobalt	11		0.28	0.064	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Copper	18		0.57	0.12	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Iron	16000		11	4.4	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Lead	34		0.28	0.14	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Magnesium	15000		5.7	2.3	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Manganese	460		0.57	0.11	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Nickel	24		0.57	0.15	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Potassium	1400		28	4.6	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Selenium	0.58		0.57	0.28	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Silver	<0.28		0.28	0.067	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Sodium	520		57	7.5	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Vanadium	21		0.28	0.083	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	1
Zinc	110	B	1.1	0.36	mg/Kg	☼	11/25/16 15:29	11/28/16 15:43	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	☼	11/27/16 11:56	11/27/16 23:31	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	☼	11/27/16 11:56	11/27/16 23:31	1
Boron	0.51		0.50	0.050	mg/L	☼	11/27/16 11:56	11/27/16 23:31	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-4

Client Sample ID: 1806V-66-B01 (0-1)

Lab Sample ID: 500-120488-12

Date Collected: 11/21/16 09:30

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 83.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0024	J	0.0050	0.0020	mg/L	—	11/27/16 11:56	11/27/16 23:31	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:31	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:31	1
Iron	<0.40		0.40	0.20	mg/L	—	11/27/16 11:56	11/27/16 23:31	1
Lead	<0.0075		0.0075	0.0075	mg/L	—	11/29/16 10:19	11/29/16 23:05	1
Manganese	1.0		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:31	1
Nickel	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:31	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/27/16 11:56	11/27/16 23:31	1
Silver	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:31	1
Zinc	0.075	J B	0.50	0.020	mg/L	—	11/27/16 11:56	11/27/16 23:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.40		0.025	0.010	mg/L	—	11/28/16 08:17	11/29/16 01:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	—	11/27/16 11:56	11/28/16 23:01	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/27/16 11:56	11/28/16 23:01	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	—	11/28/16 13:00	11/29/16 11:45	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.033		0.017	0.0090	mg/Kg	☼	11/23/16 07:45	11/23/16 10:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.4		0.2	0.2	SU	—		11/23/16 17:13	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-4

Client Sample ID: 1806V-66-B02 (2-3)

Lab Sample ID: 500-120488-13

Date Collected: 11/21/16 09:00

Matrix: Solid

Date Received: 11/21/16 15:45

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	0.0078	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Carbon disulfide	<0.0045		0.0045	0.00093	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Ethylbenzene	<0.0018		0.0018	0.00086	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Vinyl acetate	<0.0045		0.0045	0.0016	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	11/21/16 17:05	11/28/16 19:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 120	11/21/16 17:05	11/28/16 19:43	1
Dibromofluoromethane	111		75 - 120	11/21/16 17:05	11/28/16 19:43	1
1,2-Dichloroethane-d4 (Surr)	107		69 - 134	11/21/16 17:05	11/28/16 19:43	1
Toluene-d8 (Surr)	108		75 - 123	11/21/16 17:05	11/28/16 19:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.086	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
1,3-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-4

Client Sample ID: 1806V-66-B02 (2-3)

Lab Sample ID: 500-120488-13

Date Collected: 11/21/16 09:00

Matrix: Solid

Date Received: 11/21/16 15:45

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	<0.19		0.19	0.046	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Nitrobenzene	<0.038		0.038	0.0097	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Naphthalene	<0.038		0.038	0.0060	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Dimethyl phthalate	<0.19		0.19	0.051	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
2,4-Dinitrophenol	<0.78	*	0.78	0.68	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Acenaphthylene	0.016	J	0.038	0.0051	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
2,4-Dinitrotoluene	<0.19		0.19	0.062	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Acenaphthene	<0.038		0.038	0.0070	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Fluorene	0.0069	J	0.038	0.0054	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Diethyl phthalate	<0.19		0.19	0.066	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Phenanthrene	0.10		0.038	0.0054	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Anthracene	0.022	J	0.038	0.0065	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Carbazole	<0.19	*	0.19	0.097	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Fluoranthene	0.22		0.038	0.0072	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Pyrene	0.18		0.038	0.0077	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Butyl benzyl phthalate	<0.19		0.19	0.074	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Benzo[a]anthracene	0.10		0.038	0.0052	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-4

Client Sample ID: 1806V-66-B02 (2-3)

Lab Sample ID: 500-120488-13

Date Collected: 11/21/16 09:00

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.12		0.038	0.011	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Benzo[b]fluoranthene	0.18		0.038	0.0084	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Benzo[k]fluoranthene	0.068		0.038	0.011	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Benzo[a]pyrene	0.11		0.038	0.0075	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Indeno[1,2,3-cd]pyrene	0.067		0.038	0.010	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Dibenz(a,h)anthracene	0.021	J	0.038	0.0075	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
Benzo[g,h,i]perylene	0.071		0.038	0.012	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1
3 & 4 Methylphenol	<0.19		0.19	0.065	mg/Kg	☼	11/27/16 10:14	11/28/16 13:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	127		40 - 130	11/27/16 10:14	11/28/16 13:56	1
Phenol-d5	87		36 - 123	11/27/16 10:14	11/28/16 13:56	1
Nitrobenzene-d5	93		33 - 124	11/27/16 10:14	11/28/16 13:56	1
2-Fluorobiphenyl	92		42 - 115	11/27/16 10:14	11/28/16 13:56	1
2,4,6-Tribromophenol	99		25 - 130	11/27/16 10:14	11/28/16 13:56	1
Terphenyl-d14	118		25 - 150	11/27/16 10:14	11/28/16 13:56	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.63	J	1.2	0.25	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Arsenic	6.1		0.60	0.28	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Barium	42		0.60	0.11	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Beryllium	0.57		0.24	0.052	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Boron	7.8		3.0	0.42	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Cadmium	0.26		0.12	0.035	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Calcium	95000		120	38	mg/Kg	☼	11/25/16 15:29	11/29/16 12:38	10
Chromium	18	B	0.60	0.10	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Cobalt	9.4		0.30	0.067	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Copper	19		0.60	0.13	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Iron	16000		12	4.6	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Lead	19		0.30	0.15	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Magnesium	31000		6.0	2.4	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Manganese	390		0.60	0.12	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Nickel	25		0.60	0.16	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Potassium	1800		30	4.9	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Selenium	0.39	J	0.60	0.30	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Sodium	720		60	7.9	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Thallium	<0.60		0.60	0.29	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Vanadium	20		0.30	0.087	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	1
Zinc	74	B	1.2	0.38	mg/Kg	☼	11/25/16 15:29	11/28/16 15:48	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	☼	11/27/16 11:56	11/27/16 23:44	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	☼	11/27/16 11:56	11/27/16 23:44	1
Boron	0.42	J	0.50	0.050	mg/L	☼	11/27/16 11:56	11/27/16 23:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-4

Client Sample ID: 1806V-66-B02 (2-3)

Lab Sample ID: 500-120488-13

Date Collected: 11/21/16 09:00

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 81.6

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	—	11/27/16 11:56	11/27/16 23:44	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:44	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:44	1
Iron	<0.40		0.40	0.20	mg/L	—	11/27/16 11:56	11/27/16 23:44	1
Lead	<0.0075		0.0075	0.0075	mg/L	—	11/27/16 11:56	11/27/16 23:44	1
Manganese	0.84		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:44	1
Nickel	0.013	J	0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:44	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/27/16 11:56	11/27/16 23:44	1
Silver	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:44	1
Zinc	0.042	J B	0.50	0.020	mg/L	—	11/27/16 11:56	11/27/16 23:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.71		0.025	0.010	mg/L	—	11/28/16 08:17	11/29/16 01:59	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	—	11/27/16 11:56	11/28/16 23:04	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/27/16 11:56	11/28/16 23:04	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	—	11/28/16 13:00	11/29/16 11:46	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.029		0.019	0.010	mg/Kg	☼	11/23/16 07:45	11/23/16 10:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.6		0.2	0.2	SU	—		11/23/16 17:17	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-4

Client Sample ID: 1806V-66-B03 (1-2)

Lab Sample ID: 500-120488-14

Date Collected: 11/21/16 09:20

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0088	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Benzene	<0.0020		0.0020	0.00052	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Bromoform	<0.0020		0.0020	0.00059	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Bromomethane	<0.0051		0.0051	0.0019	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
2-Butanone (MEK)	<0.0051		0.0051	0.0023	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Carbon disulfide	<0.0051		0.0051	0.0011	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Carbon tetrachloride	<0.0020		0.0020	0.00059	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Chlorobenzene	<0.0020		0.0020	0.00075	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Chloroethane	<0.0051		0.0051	0.0015	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Chloroform	<0.0020		0.0020	0.00070	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Chloromethane	<0.0051		0.0051	0.0020	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00057	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00061	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Dibromochloromethane	<0.0020		0.0020	0.00066	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
1,1-Dichloroethane	<0.0020		0.0020	0.00070	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
1,2-Dichloroethane	<0.0051		0.0051	0.0016	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
1,1-Dichloroethene	<0.0020		0.0020	0.00070	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00071	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Ethylbenzene	<0.0020		0.0020	0.00097	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
2-Hexanone	<0.0051	*	0.0051	0.0016	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Methylene Chloride	<0.0051		0.0051	0.0020	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
4-Methyl-2-pentanone (MIBK)	<0.0051	*	0.0051	0.0015	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00060	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Styrene	<0.0020		0.0020	0.00061	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
1,1,1,2-Tetrachloroethane	<0.0020		0.0020	0.00065	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Tetrachloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00090	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00071	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00087	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Trichloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Vinyl acetate	<0.0051		0.0051	0.0018	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Vinyl chloride	<0.0020		0.0020	0.00090	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1
Xylenes, Total	<0.0041		0.0041	0.00065	mg/Kg	☼	11/21/16 17:05	11/29/16 00:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 120	11/21/16 17:05	11/29/16 00:33	1
Dibromofluoromethane	110		75 - 120	11/21/16 17:05	11/29/16 00:33	1
1,2-Dichloroethane-d4 (Surr)	111		69 - 134	11/21/16 17:05	11/29/16 00:33	1
Toluene-d8 (Surr)	107		75 - 123	11/21/16 17:05	11/29/16 00:33	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	☼	11/27/16 10:14	11/28/16 17:08	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
1,3-Dichlorobenzene	<0.19	F1 F2	0.19	0.042	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-4

Client Sample ID: 1806V-66-B03 (1-2)

Lab Sample ID: 500-120488-14

Date Collected: 11/21/16 09:20

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Naphthalene	0.015	J	0.037	0.0058	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
2,4-Dichlorophenol	<0.37	F1 F2	0.37	0.089	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Hexachlorocyclopentadiene	<0.76	F1	0.76	0.22	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
2-Methylnaphthalene	0.020	J	0.076	0.0069	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
2-Chloronaphthalene	<0.19	F1 F2	0.19	0.041	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Dimethyl phthalate	<0.19	F1 F2	0.19	0.049	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
2,4-Dinitrophenol	<0.76	F1 *	0.76	0.66	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Acenaphthylene	0.066	F1 F2	0.037	0.0049	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Acenaphthene	<0.037	F2	0.037	0.0067	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Fluorene	0.0063	J	0.037	0.0053	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Pentachlorophenol	<0.76	F1	0.76	0.60	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
4,6-Dinitro-2-methylphenol	<0.76	F2	0.76	0.30	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Phenanthrene	0.10		0.037	0.0052	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Anthracene	0.042		0.037	0.0063	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Carbazole	<0.19	*	0.19	0.094	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Fluoranthene	0.32		0.037	0.0069	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Pyrene	0.27		0.037	0.0074	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Benzo[a]anthracene	0.19		0.037	0.0050	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-4

Client Sample ID: 1806V-66-B03 (1-2)

Lab Sample ID: 500-120488-14

Date Collected: 11/21/16 09:20

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.23		0.037	0.010	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
3,3'-Dichlorobenzidine	<0.19	F1 F2	0.19	0.052	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Benzo[b]fluoranthene	0.43		0.037	0.0081	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Benzo[k]fluoranthene	0.15		0.037	0.011	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Benzo[a]pyrene	0.21		0.037	0.0072	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Indeno[1,2,3-cd]pyrene	0.11		0.037	0.0097	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Dibenz(a,h)anthracene	0.032	J F1	0.037	0.0072	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
Benzo[g,h,i]perylene	0.10	F1	0.037	0.012	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	11/27/16 10:14	11/28/16 17:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	95		40 - 130	11/27/16 10:14	11/28/16 17:08	1
Phenol-d5	96		36 - 123	11/27/16 10:14	11/28/16 17:08	1
Nitrobenzene-d5	107		33 - 124	11/27/16 10:14	11/28/16 17:08	1
2-Fluorobiphenyl	103		42 - 115	11/27/16 10:14	11/28/16 17:08	1
2,4,6-Tribromophenol	138	X	25 - 130	11/27/16 10:14	11/28/16 17:08	1
Terphenyl-d14	138		25 - 150	11/27/16 10:14	11/28/16 17:08	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.63	J	1.1	0.23	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Arsenic	5.8		0.57	0.26	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Barium	58		0.57	0.10	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Beryllium	0.63		0.23	0.049	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Boron	7.2		2.8	0.40	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Cadmium	0.34		0.11	0.033	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Calcium	66000		110	36	mg/Kg	☼	11/25/16 15:29	11/29/16 12:45	10
Chromium	19	B	0.57	0.097	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Cobalt	9.8		0.28	0.064	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Copper	22		0.57	0.12	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Iron	17000		11	4.4	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Lead	87		0.28	0.14	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Magnesium	23000		5.7	2.3	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Manganese	420		0.57	0.11	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Nickel	27		0.57	0.15	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Potassium	1600		28	4.6	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Selenium	0.43	J	0.57	0.28	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Silver	<0.28		0.28	0.066	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Sodium	1400		57	7.5	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Vanadium	20		0.28	0.083	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1
Zinc	94	B	1.1	0.36	mg/Kg	☼	11/25/16 15:29	11/28/16 15:52	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.50		0.50	0.050	mg/L	☼	11/27/16 11:56	11/27/16 23:49	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	☼	11/27/16 11:56	11/27/16 23:49	1
Boron	0.39	J	0.50	0.050	mg/L	☼	11/27/16 11:56	11/27/16 23:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-4

Client Sample ID: 1806V-66-B03 (1-2)

Lab Sample ID: 500-120488-14

Date Collected: 11/21/16 09:20

Matrix: Solid

Date Received: 11/21/16 15:45

Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0032	J	0.0050	0.0020	mg/L	—	11/27/16 11:56	11/27/16 23:49	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:49	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:49	1
Iron	<0.40		0.40	0.20	mg/L	—	11/27/16 11:56	11/27/16 23:49	1
Lead	<0.0075		0.0075	0.0075	mg/L	—	11/29/16 10:19	11/29/16 23:12	1
Manganese	0.65		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:49	1
Nickel	0.014	J	0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:49	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/27/16 11:56	11/27/16 23:49	1
Silver	<0.025		0.025	0.010	mg/L	—	11/27/16 11:56	11/27/16 23:49	1
Zinc	0.050	J B	0.50	0.020	mg/L	—	11/27/16 11:56	11/27/16 23:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.57		0.025	0.010	mg/L	—	11/28/16 08:17	11/29/16 02:06	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	—	11/27/16 11:56	11/28/16 23:07	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/27/16 11:56	11/28/16 23:07	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	—	11/28/16 13:00	11/29/16 11:48	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.045		0.018	0.0095	mg/Kg	☼	11/23/16 07:45	11/23/16 10:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.6		0.2	0.2	SU	—		11/23/16 17:21	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-4

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits

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.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120488-4

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-17

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

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-120488-4

Login Number: 120488

List Source: TestAmerica Chicago

List Number: 1

Creator: James, Jeff A

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	5.7, 5.2
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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Illinois Environmental Protection Agency

Page 1 of 2

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: FAU 2711 (IL Route 131) Office Phone Number, if available: _____

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

39900 block of N. Green Bay Road (ISGS #1806V-68)

City: Beach Park State: IL Zip Code: 60099

County: Lake Township: Benton

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

Latitude: 42.44215 Longitude: -87.87340

(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

Project Name: FAU 2711 (IL Route 131)Latitude: 42.44215 Longitude: -87.87340Uncontaminated 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 1086V-68-B02 and -B03 were sampled within the construction zone adjacent to ISGS #1806V-68 (Agricultural Land). Refer to PSI Report for ISGS #1806V-68 (Agricultural Land) including Table 4-4, 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 J120431-2.

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:

2-1-2017
 Date:



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

Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-228-14; WorkOrder #20

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.

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

 = Concentration exceeds applicable comparison criteria.

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-228-14; WorkOrder #20

CONTAMINANTS OF CONCERN

SITE	ISGS #1806V-68 (Agricultural Land)		Comparison Criteria					
BORING	1806V-68-B02	1806V-68-B03	MACs			TACO		
SAMPLE	1806V-68-B02 (3-4)	1806V-68-B03 (1-2)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil	Soil						
DEPTH (feet)	3-4	1-2						
pH	8.3	8.6						
VOCs (None Detected)								
SVOCs (mg/kg)								
Acenaphthylene	ND U	0.018 J	--	--	--	--	--	--
Anthracene	ND U	0.0097 J	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	ND U	0.059	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	ND U	0.056	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	ND U	0.093	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	ND U	0.024 J	--	--	--	--	--	--
Benzo(k)fluoranthene	ND U	0.046	9	--	--	1.7	1,700	--
Chrysene	ND U	0.057	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	ND U	0.012 J	0.09	0.42	0.2	0.42	17	--
Fluoranthene	ND U	0.096	3100	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	ND U	0.029 J	0.9	1.6	0.9	1.6	170	--
Phenanthrene	ND U	0.03 J	--	--	--	--	--	--
Pyrene	ND U	0.078	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)								
Antimony	0.42 J	0.51 J	5	--	--	31	82	0.006
Arsenic	5.6	9	11.3	13	--	13	61	0.05
Barium	48	58	1,500	--	--	5,500	14,000	2
Beryllium	0.54	0.88	22	--	--	160	410	0.004
Boron	3.9	6.1	40	--	--	16,000	41,000	2
Cadmium	0.13	0.25	5.2	--	--	78	200	0.005
Calcium	3,000	3,800	--	--	--	--	--	--
Chromium	15	26 †	21	--	--	230	690	0.1
Cobalt	14	12	20	--	--	4,700	12,000	1
Copper	15	30	2,900	--	--	2,900	8,200	0.65
Iron	16,000 †m	27,000 †m	15,000	15,900	--	--	--	5
Lead	23	33	107	--	--	400	700	0.0075
Magnesium	3,800	6,800	325,000	--	--	--	730,000	--
Manganese	560	280	630	636	--	1,600	4,100	0.15
Mercury	0.031	0.054	0.89	--	--	10	0.1	0.002
Nickel	20	37	100	--	--	1,600	4,100	0.1
Potassium	1,200	2,200	--	--	--	--	--	--
Selenium	0.45 J	0.6	1.3	--	--	390	1,000	0.05
Sodium	1,100	2,500	--	--	--	--	--	--
Vanadium	22	28	550	--	--	550	1,400	0.049
Zinc	49	84	5,100	--	--	23,000	61,000	5
TCLP Metals (mg/L)								
Barium	0.26 J	0.25 J	--	--	--	--	--	2
Boron	0.068 J	0.082 J	--	--	--	--	--	2
Cadmium	ND U	0.0039 J	--	--	--	--	--	0.005
Chromium	ND U	ND U	--	--	--	--	--	0.1
Iron	ND U	ND U	--	--	--	--	--	5
Lead	ND U	0.014 L	--	--	--	--	--	0.0075
Manganese	0.72 L	0.93 L	--	--	--	--	--	0.15
SPLP Metals (mg/L)								
Lead	NA	0.33 L	--	--	--	--	--	0.0075
Manganese	1.5 L	1.9 L	--	--	--	--	--	0.15

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-120431-2

Client Project/Site: IDOT - IL 131 - WO 020

For:

Ecology and Environment, Inc.

33 West Monroe St.

Suite 1410

Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:

11/30/2016 4:01:51 PM

Jodie Bracken, Project Management Assistant II

jodie.bracken@testamericainc.com

Designee for

Richard Wright, Senior Project Manager

(708)534-5200

richard.wright@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

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

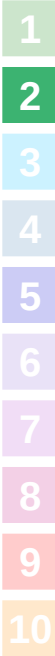


Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	7
Client Sample Results	8
Definitions	24
Certification Summary	25
Chain of Custody	26
Receipt Checklists	27

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-2

Job ID: 500-120431-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-120431-2

Comments

No additional comments.

Receipt

The samples were received on 11/18/2016 3:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.3° C.

Receipt Exceptions

The ID on the label for laboratory sample -8 is 1806V-68-B03 (1-2) The chain of custody has 1806V -68-B02 (1-2). Logged in per bottle and confirmed with EDI.

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 batch 500-362275 had 1 analyte outside control limits: 2,4-Dinitrophenol. These results have been reported and qualified. (LCS 500-362275/2-A)

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 500-362251 and 500-362333 contained Zinc above the reporting limit (RL). The samples associated with this method blank had results for the target compound below the RL; therefore, re-extraction and/or re-analysis of samples were not performed.

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

General Chemistry

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

Organic Prep

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

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-2

1
2
3
4
5
6
7
8
9
10

Client Sample ID: 1806V-68-B02 (3-4)

Lab Sample ID: 500-120431-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Antimony	0.42	J	0.98	0.20	mg/Kg	1	✱		6010B	Total/NA
Arsenic	5.6		0.49	0.23	mg/Kg	1	✱		6010B	Total/NA
Barium	48		0.49	0.090	mg/Kg	1	✱		6010B	Total/NA
Beryllium	0.54		0.20	0.042	mg/Kg	1	✱		6010B	Total/NA
Boron	3.9		2.4	0.34	mg/Kg	1	✱		6010B	Total/NA
Cadmium	0.13		0.098	0.028	mg/Kg	1	✱		6010B	Total/NA
Calcium	3000		9.8	3.2	mg/Kg	1	✱		6010B	Total/NA
Chromium	15	B	0.49	0.084	mg/Kg	1	✱		6010B	Total/NA
Cobalt	14		0.24	0.055	mg/Kg	1	✱		6010B	Total/NA
Copper	15		0.49	0.11	mg/Kg	1	✱		6010B	Total/NA
Iron	16000	B	9.8	3.8	mg/Kg	1	✱		6010B	Total/NA
Lead	23		0.24	0.12	mg/Kg	1	✱		6010B	Total/NA
Magnesium	3800		4.9	2.0	mg/Kg	1	✱		6010B	Total/NA
Manganese	560		0.49	0.097	mg/Kg	1	✱		6010B	Total/NA
Nickel	20		0.49	0.13	mg/Kg	1	✱		6010B	Total/NA
Potassium	1200	B	24	4.0	mg/Kg	1	✱		6010B	Total/NA
Selenium	0.45	J	0.49	0.24	mg/Kg	1	✱		6010B	Total/NA
Sodium	1100		49	6.5	mg/Kg	1	✱		6010B	Total/NA
Vanadium	22		0.24	0.072	mg/Kg	1	✱		6010B	Total/NA
Zinc	49	B	0.98	0.31	mg/Kg	1	✱		6010B	Total/NA
Barium	0.26	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.068	J	0.50	0.050	mg/L	1			6010B	TCLP
Manganese	0.72		0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.026	J B	0.50	0.020	mg/L	1			6010B	TCLP
Manganese	1.5		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.031		0.019	0.0099	mg/Kg	1	✱		7471B	Total/NA
pH	8.3		0.2	0.2	SU	1			9045D	Total/NA

Client Sample ID: 1806V-68-B03 (1-2)

Lab Sample ID: 500-120431-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acenaphthylene	0.018	J	0.040	0.0053	mg/Kg	1	✱		8270D	Total/NA
Phenanthrene	0.030	J	0.040	0.0056	mg/Kg	1	✱		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-2

Client Sample ID: 1806V-68-B03 (1-2) (Continued)

Lab Sample ID: 500-120431-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Anthracene	0.0097	J	0.040	0.0068	mg/Kg	1	☼	8270D		Total/NA
Fluoranthene	0.096		0.040	0.0075	mg/Kg	1	☼	8270D		Total/NA
Pyrene	0.078		0.040	0.0080	mg/Kg	1	☼	8270D		Total/NA
Benzo[a]anthracene	0.059		0.040	0.0054	mg/Kg	1	☼	8270D		Total/NA
Chrysene	0.057		0.040	0.011	mg/Kg	1	☼	8270D		Total/NA
Benzo[b]fluoranthene	0.093		0.040	0.0087	mg/Kg	1	☼	8270D		Total/NA
Benzo[k]fluoranthene	0.046		0.040	0.012	mg/Kg	1	☼	8270D		Total/NA
Benzo[a]pyrene	0.056		0.040	0.0078	mg/Kg	1	☼	8270D		Total/NA
Indeno[1,2,3-cd]pyrene	0.029	J	0.040	0.010	mg/Kg	1	☼	8270D		Total/NA
Dibenz(a,h)anthracene	0.012	J	0.040	0.0078	mg/Kg	1	☼	8270D		Total/NA
Benzo[g,h,i]perylene	0.024	J	0.040	0.013	mg/Kg	1	☼	8270D		Total/NA
Antimony	0.51	J	1.1	0.24	mg/Kg	1	☼	6010B		Total/NA
Arsenic	9.0		0.57	0.26	mg/Kg	1	☼	6010B		Total/NA
Barium	58		0.57	0.10	mg/Kg	1	☼	6010B		Total/NA
Beryllium	0.88		0.23	0.049	mg/Kg	1	☼	6010B		Total/NA
Boron	6.1		2.8	0.40	mg/Kg	1	☼	6010B		Total/NA
Cadmium	0.25		0.11	0.033	mg/Kg	1	☼	6010B		Total/NA
Calcium	3800		11	3.7	mg/Kg	1	☼	6010B		Total/NA
Chromium	26	B	0.57	0.098	mg/Kg	1	☼	6010B		Total/NA
Cobalt	12		0.28	0.064	mg/Kg	1	☼	6010B		Total/NA
Copper	30		0.57	0.12	mg/Kg	1	☼	6010B		Total/NA
Iron	27000	B	11	4.4	mg/Kg	1	☼	6010B		Total/NA
Lead	33		0.28	0.14	mg/Kg	1	☼	6010B		Total/NA
Magnesium	6800		5.7	2.3	mg/Kg	1	☼	6010B		Total/NA
Manganese	280		0.57	0.11	mg/Kg	1	☼	6010B		Total/NA
Nickel	37		0.57	0.15	mg/Kg	1	☼	6010B		Total/NA
Potassium	2200	B	28	4.6	mg/Kg	1	☼	6010B		Total/NA
Selenium	0.60		0.57	0.28	mg/Kg	1	☼	6010B		Total/NA
Sodium	2500		57	7.5	mg/Kg	1	☼	6010B		Total/NA
Vanadium	28		0.28	0.083	mg/Kg	1	☼	6010B		Total/NA
Zinc	84	B	1.1	0.36	mg/Kg	1	☼	6010B		Total/NA
Barium	0.25	J	0.50	0.050	mg/L	1		6010B		TCLP
Boron	0.082	J	0.50	0.050	mg/L	1		6010B		TCLP
Cadmium	0.0039	J	0.0050	0.0020	mg/L	1		6010B		TCLP
Lead	0.014		0.0075	0.0075	mg/L	1		6010B		TCLP
Manganese	0.93		0.025	0.010	mg/L	1		6010B		TCLP
Zinc	0.029	J B	0.50	0.020	mg/L	1		6010B		TCLP
Lead	0.33		0.0075	0.0075	mg/L	1		6010B		SPLP East
Manganese	1.9		0.025	0.010	mg/L	1		6010B		SPLP East
Mercury	0.054		0.019	0.0097	mg/Kg	1	☼	7471B		Total/NA
pH	8.6		0.2	0.2	SU	1		9045D		Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-120431-7	1806V-68-B02 (3-4)	Solid	11/18/16 10:15	11/18/16 15:45
500-120431-8	1806V-68-B03 (1-2)	Solid	11/18/16 10:50	11/18/16 15:45

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-2

Client Sample ID: 1806V-68-B02 (3-4)

Lab Sample ID: 500-120431-7

Date Collected: 11/18/16 10:15

Matrix: Solid

Date Received: 11/18/16 15:45

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0068	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Carbon disulfide	<0.0039		0.0039	0.00081	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Carbon tetrachloride	<0.0016		0.0016	0.00045	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Chlorobenzene	<0.0016		0.0016	0.00058	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Chloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
1,1-Dichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
1,2-Dichloropropane	<0.0016		0.0016	0.00040	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Styrene	<0.0016		0.0016	0.00047	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Toluene	<0.0016		0.0016	0.00039	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00069	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Vinyl acetate	<0.0039		0.0039	0.0014	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Vinyl chloride	<0.0016		0.0016	0.00069	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	11/19/16 12:50	11/23/16 11:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 120	11/19/16 12:50	11/23/16 11:07	1
Dibromofluoromethane	109		75 - 120	11/19/16 12:50	11/23/16 11:07	1
1,2-Dichloroethane-d4 (Surr)	109		69 - 134	11/19/16 12:50	11/23/16 11:07	1
Toluene-d8 (Surr)	107		75 - 123	11/19/16 12:50	11/23/16 11:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-2

Client Sample ID: 1806V-68-B02 (3-4)

Lab Sample ID: 500-120431-7

Date Collected: 11/18/16 10:15

Matrix: Solid

Date Received: 11/18/16 15:45

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	<0.19		0.19	0.046	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
2,4-Dinitrophenol	<0.78 *		0.78	0.68	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Phenanthrene	<0.038		0.038	0.0054	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Fluoranthene	<0.038		0.038	0.0071	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Pyrene	<0.038		0.038	0.0076	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Benzo[a]anthracene	<0.038		0.038	0.0052	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-2

Client Sample ID: 1806V-68-B02 (3-4)

Lab Sample ID: 500-120431-7

Date Collected: 11/18/16 10:15

Matrix: Solid

Date Received: 11/18/16 15:45

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Benzo[b]fluoranthene	<0.038		0.038	0.0083	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	11/23/16 19:30	11/26/16 15:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	97		40 - 130	11/23/16 19:30	11/26/16 15:15	1
Phenol-d5	94		36 - 123	11/23/16 19:30	11/26/16 15:15	1
Nitrobenzene-d5	99		33 - 124	11/23/16 19:30	11/26/16 15:15	1
2-Fluorobiphenyl	89		42 - 115	11/23/16 19:30	11/26/16 15:15	1
2,4,6-Tribromophenol	69		25 - 130	11/23/16 19:30	11/26/16 15:15	1
Terphenyl-d14	100		25 - 150	11/23/16 19:30	11/26/16 15:15	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.42	J	0.98	0.20	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Arsenic	5.6		0.49	0.23	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Barium	48		0.49	0.090	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Beryllium	0.54		0.20	0.042	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Boron	3.9		2.4	0.34	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Cadmium	0.13		0.098	0.028	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Calcium	3000		9.8	3.2	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Chromium	15	B	0.49	0.084	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Cobalt	14		0.24	0.055	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Copper	15		0.49	0.11	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Iron	16000	B	9.8	3.8	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Lead	23		0.24	0.12	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Magnesium	3800		4.9	2.0	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Manganese	560		0.49	0.097	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Nickel	20		0.49	0.13	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Potassium	1200	B	24	4.0	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Selenium	0.45	J	0.49	0.24	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Silver	<0.24		0.24	0.057	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Sodium	1100		49	6.5	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Thallium	<0.49		0.49	0.24	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Vanadium	22		0.24	0.072	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1
Zinc	49	B	0.98	0.31	mg/Kg	☼	11/23/16 07:54	11/23/16 19:46	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.26	J	0.50	0.050	mg/L	☼	11/25/16 08:28	11/25/16 20:22	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	☼	11/25/16 08:28	11/25/16 20:22	1
Boron	0.068	J	0.50	0.050	mg/L	☼	11/25/16 08:28	11/25/16 20:22	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-2

Client Sample ID: 1806V-68-B02 (3-4)

Lab Sample ID: 500-120431-7

Date Collected: 11/18/16 10:15

Matrix: Solid

Date Received: 11/18/16 15:45

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	—	11/25/16 08:28	11/25/16 20:22	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:22	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:22	1
Iron	<0.40		0.40	0.20	mg/L	—	11/25/16 08:28	11/25/16 20:22	1
Lead	<0.0075		0.0075	0.0075	mg/L	—	11/25/16 08:28	11/25/16 20:22	1
Manganese	0.72		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:22	1
Nickel	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:22	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/25/16 08:28	11/25/16 20:22	1
Silver	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:22	1
Zinc	0.026	J B	0.50	0.020	mg/L	—	11/25/16 08:28	11/25/16 20:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.5		0.025	0.010	mg/L	—	11/25/16 14:04	11/28/16 07:18	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	—	11/25/16 08:28	11/28/16 14:32	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/25/16 08:28	11/28/16 14:32	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	—	11/25/16 11:45	11/28/16 09:53	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.031		0.019	0.0099	mg/Kg	☼	11/21/16 16:10	11/22/16 10:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.3		0.2	0.2	SU	—		11/22/16 15:21	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-2

Client Sample ID: 1806V-68-B03 (1-2)

Lab Sample ID: 500-120431-8

Date Collected: 11/18/16 10:50

Matrix: Solid

Date Received: 11/18/16 15:45

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	0.0081	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Bromodichloromethane	<0.0018		0.0018	0.00038	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Bromoform	<0.0018		0.0018	0.00054	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
2-Butanone (MEK)	<0.0046		0.0046	0.0021	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Carbon disulfide	<0.0046		0.0046	0.00096	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Carbon tetrachloride	<0.0018		0.0018	0.00054	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Chlorobenzene	<0.0018		0.0018	0.00068	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Chloroform	<0.0018		0.0018	0.00064	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Chloromethane	<0.0046		0.0046	0.0019	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00052	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00056	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
1,1-Dichloroethene	<0.0018		0.0018	0.00064	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
1,2-Dichloropropane	<0.0018		0.0018	0.00048	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00065	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Ethylbenzene	<0.0018		0.0018	0.00088	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Styrene	<0.0018		0.0018	0.00056	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Tetrachloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Toluene	<0.0018		0.0018	0.00047	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00082	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00065	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00079	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Trichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Vinyl acetate	<0.0046		0.0046	0.0016	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Vinyl chloride	<0.0018		0.0018	0.00082	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	11/19/16 12:50	11/23/16 11:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 120	11/19/16 12:50	11/23/16 11:32	1
Dibromofluoromethane	110		75 - 120	11/19/16 12:50	11/23/16 11:32	1
1,2-Dichloroethane-d4 (Surr)	116		69 - 134	11/19/16 12:50	11/23/16 11:32	1
Toluene-d8 (Surr)	109		75 - 123	11/19/16 12:50	11/23/16 11:32	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	☼	11/23/16 19:30	11/26/16 19:01	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-2

Client Sample ID: 1806V-68-B03 (1-2)

Lab Sample ID: 500-120431-8

Date Collected: 11/18/16 10:50

Matrix: Solid

Date Received: 11/18/16 15:45

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.049	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
2-Methylnaphthalene	<0.082		0.082	0.0074	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
2,4-Dinitrophenol	<0.82	*	0.82	0.71	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Acenaphthylene	0.018	J	0.040	0.0053	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
4-Nitrophenol	<0.82		0.82	0.38	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Phenanthrene	0.030	J	0.040	0.0056	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Anthracene	0.0097	J	0.040	0.0068	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Fluoranthene	0.096		0.040	0.0075	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Pyrene	0.078		0.040	0.0080	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Benzo[a]anthracene	0.059		0.040	0.0054	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-2

Client Sample ID: 1806V-68-B03 (1-2)

Lab Sample ID: 500-120431-8

Date Collected: 11/18/16 10:50

Matrix: Solid

Date Received: 11/18/16 15:45

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.057		0.040	0.011	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Benzo[b]fluoranthene	0.093		0.040	0.0087	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Benzo[k]fluoranthene	0.046		0.040	0.012	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Benzo[a]pyrene	0.056		0.040	0.0078	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Indeno[1,2,3-cd]pyrene	0.029	J	0.040	0.010	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Dibenz(a,h)anthracene	0.012	J	0.040	0.0078	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
Benzo[g,h,i]perylene	0.024	J	0.040	0.013	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	11/23/16 19:30	11/26/16 19:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	94		40 - 130	11/23/16 19:30	11/26/16 19:01	1
Phenol-d5	89		36 - 123	11/23/16 19:30	11/26/16 19:01	1
Nitrobenzene-d5	98		33 - 124	11/23/16 19:30	11/26/16 19:01	1
2-Fluorobiphenyl	87		42 - 115	11/23/16 19:30	11/26/16 19:01	1
2,4,6-Tribromophenol	65		25 - 130	11/23/16 19:30	11/26/16 19:01	1
Terphenyl-d14	95		25 - 150	11/23/16 19:30	11/26/16 19:01	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.51	J	1.1	0.24	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Arsenic	9.0		0.57	0.26	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Barium	58		0.57	0.10	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Beryllium	0.88		0.23	0.049	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Boron	6.1		2.8	0.40	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Cadmium	0.25		0.11	0.033	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Calcium	3800		11	3.7	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Chromium	26	B	0.57	0.098	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Cobalt	12		0.28	0.064	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Copper	30		0.57	0.12	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Iron	27000	B	11	4.4	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Lead	33		0.28	0.14	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Magnesium	6800		5.7	2.3	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Manganese	280		0.57	0.11	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Nickel	37		0.57	0.15	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Potassium	2200	B	28	4.6	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Selenium	0.60		0.57	0.28	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Silver	<0.28		0.28	0.066	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Sodium	2500		57	7.5	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Vanadium	28		0.28	0.083	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1
Zinc	84	B	1.1	0.36	mg/Kg	☼	11/23/16 07:54	11/23/16 19:50	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.25	J	0.50	0.050	mg/L	—	11/25/16 08:28	11/25/16 20:35	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	—	11/25/16 08:28	11/25/16 20:35	1
Boron	0.082	J	0.50	0.050	mg/L	—	11/25/16 08:28	11/25/16 20:35	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-2

Client Sample ID: 1806V-68-B03 (1-2)

Lab Sample ID: 500-120431-8

Date Collected: 11/18/16 10:50

Matrix: Solid

Date Received: 11/18/16 15:45

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0039	J	0.0050	0.0020	mg/L	—	11/25/16 08:28	11/25/16 20:35	1
Chromium	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:35	1
Cobalt	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:35	1
Iron	<0.40		0.40	0.20	mg/L	—	11/25/16 08:28	11/25/16 20:35	1
Lead	0.014		0.0075	0.0075	mg/L	—	11/25/16 08:28	11/25/16 20:35	1
Manganese	0.93		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:35	1
Nickel	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:35	1
Selenium	<0.050		0.050	0.020	mg/L	—	11/25/16 08:28	11/25/16 20:35	1
Silver	<0.025		0.025	0.010	mg/L	—	11/25/16 08:28	11/25/16 20:35	1
Zinc	0.029	J B	0.50	0.020	mg/L	—	11/25/16 08:28	11/25/16 20:35	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.33		0.0075	0.0075	mg/L	—	11/25/16 14:04	11/28/16 07:25	1
Manganese	1.9		0.025	0.010	mg/L	—	11/25/16 14:04	11/28/16 07:25	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	—	11/25/16 08:28	11/28/16 14:35	1
Thallium	<0.0020		0.0020	0.0020	mg/L	—	11/25/16 08:28	11/28/16 14:35	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	—	11/25/16 11:45	11/28/16 09:55	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.054		0.019	0.0097	mg/Kg	☼	11/21/16 16:10	11/22/16 10:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.6		0.2	0.2	SU	—		11/22/16 15:26	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-2

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
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 131 - WO 020

TestAmerica Job ID: 500-120431-2

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

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-120431-2

Login Number: 120431

List Source: TestAmerica Chicago

List Number: 1

Creator: James, Jeff A

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	4.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	