



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

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

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

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

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

I. Source Location Information

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

Project Name: FAP 344 (Illinois Route 83) Office Phone Number, if available: _____

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

5300 block of W. 127th Street (ISGS #2274V-3)

City: Alsip State: IL Zip Code: 60803

County: Cook Township: Worth

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

Latitude: 41.66189 Longitude: -87.75230

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Tyler Petersen

Contact: Tyler Petersen

Email, if available: Tyler.Petersen@illinois.gov

Email, if available: Tyler.Petersen@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 344 (Illinois Route 83)

Latitude: 41.66189 Longitude: -87.75230

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 2274V-03-B01 through -B06, -B08, -B09, and -B10 were sampled within the construction zone adjacent to ISGS #2274V-3 (Vacant Land). Refer to PSI Report for ISGS #2274V-3 (Vacant Land) including Table 4-3, and Figures 4-2 and 4-3.

- 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 J129676-3 and J143305-2.

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

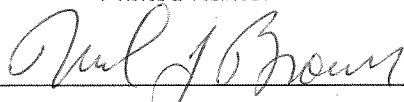
I, Neil J. Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental 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

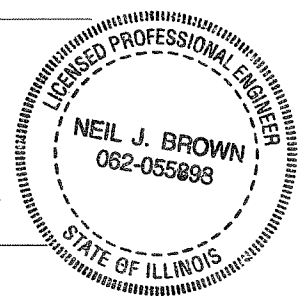
Neil J. Brown _____

Printed Name:



5/14/2018

Date:



Licensed Professional Engineer or
Licensed Professional Geologist Signature:





Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15B

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 or not applicable.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.
- PID = Photoionization detector.
- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

- # = pH is less than 6.25 or greater than 9.0 standard units.
- ** = Headspace reading above background (outside of instrument margin of error).
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Headspace reading exceeds background levels
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #2274V-3 (Vacant Land)				Comparison Criteria									
	2274V-03-B01		2274V-03-B02		MACs			TACO						
BORING	2274V-03-B01 (0-8)		2274V-03-B01 (8-16)		2274V-03-B01 (8-16)D		2274V-03-B02 (0-4)							
SAMPLE	2274V-03-B01 (0-8)		2274V-03-B01 (8-16)		2274V-03-B01 (8-16)D		2274V-03-B02 (0-4)							
MATRIX	Soil		Soil		Soil		Soil							
DEPTH (feet)	0-8		8-16		8-16		0-4							
pH	7.6		7.7		7.6		7.6							
					Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER				
VOCs (mg/kg)														
Acetone	ND	U	ND	U	ND	U	ND	U	25	--	--	70,000	100,000	--
SVOCs (mg/kg)														
2-Methylnaphthalene	ND	U	ND	U	0.0075	J	ND	U	--	--	--	--	--	--
Acenaphthene	ND	U	ND	U	ND	U	ND	U	570	--	--	4,700	120,000	--
Acenaphthylene	ND	U	ND	U	ND	U	ND	U	--	--	--	--	--	--
Anthracene	0.0069	J	ND	U	ND	U	ND	U	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.043		0.0080	J	0.012	J	0.011	J	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.049		ND	U	0.011	J	0.012	J	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.081		ND	U	0.023	J	0.014	J	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.031	J	ND	U	0.014	J	0.018	J	--	--	--	--	--	--
Benzo(k)fluoranthene	0.031	J	ND	U	ND	U	ND	U	9	--	--	9	1,700	--
Bis(2-ethylhexyl) phthalate	ND	U	ND	U	ND	U	ND	U	46	--	--	46	4,100	--
Butyl benzyl phthalate	ND	U	ND	U	ND	U	ND	U	930	--	--	930	930	--
Carbazole	ND	U	ND	U	ND	U	ND	U	0.6	--	--	32	6,200	--
Chrysene	0.064		0.022	J	0.025	J	0.024	J	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	ND	U	ND	U	ND	U	ND	U	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.080		0.014	J	0.018	J	0.017	J	3,100	--	--	3,100	82,000	--
Fluorene	ND	U	ND	U	ND	U	ND	U	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.025	J	ND	U	ND	U	ND	U	0.9	1.6	0.9	1.6	170	--
Naphthalene	0.0072	J	ND	U	ND	U	ND	U	1.8	--	--	170	1.8	--
N-Nitrosodiphenylamine	0.044	J	ND	U	ND	U	ND	U	1	--	--	130	25,000	--
Phenanthrene	0.037		0.017	J	0.023	J	0.016	J	--	--	--	--	--	--
Pyrene	0.083		0.022	J	0.031	J	0.021	J	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)														
Antimony	ND	U	ND	U	ND	U	ND	U	5	--	--	31	82	--
Arsenic	7.4		9.8		8.7		7.0		11.3	13	--	13	61	--
Barium	24		24		24		20		1,500	--	--	5,500	14,000	--
Beryllium	0.29		0.31		0.29		0.34		22	--	--	160	410	--
Boron	7.0		7.7		7.5		9.8		40	--	--	16,000	41,000	--
Cadmium	0.19		0.21		0.22		0.14		5.2	--	--	78	200	--
Calcium	100,000		110,000		130,000		120,000		--	--	--	--	--	--
Chromium	7.6		8.0		7.4		8.7		21	--	--	230	690	--
Cobalt	8.1		10		8.8		8.1		20	--	--	4,700	12,000	--
Copper	21		23		21		18		2,900	--	--	2,900	8,200	--
Iron	13,000		16,000	†m	14,000		13,000		15,000	15,900	--	--	--	--
Lead	26		20		27		15		107	--	--	400	700	--
Magnesium	36,000		37,000		38,000		46,000		325,000	--	--	--	730,000	--
Manganese	330		400		380		290		630	636	--	1,600	4,100	--
Mercury	ND	U	ND	U	ND	U	ND	U	0.89	--	--	10	0.1	--
Nickel	18		22		19		20		100	--	--	1,600	4,100	--
Potassium	1,000		1,200		1,100		1,500		--	--	--	--	--	--
Selenium	0.54	J	0.89		0.48	J	0.36	J	1.3	--	--	390	1,000	--
Silver	ND	U	ND	U	ND	U	ND	U	4.4	--	--	390	1,000	--
Sodium	250		200		200		160		--	--	--	--	--	--
Vanadium	10		11		10		12		550	--	--	550	1,400	--
Zinc	61		62		63		44		5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)														
Barium	0.12	J	0.28	J	0.23	J	0.12	J	--	--	--	--	--	2
Cadmium	0.0034	J	0.0033	J	0.0034	J	0.0029	J	--	--	--	--	--	0.005
Cobalt	0.024	J	0.048		0.044		0.023	J	--	--	--	--	--	1
Iron	ND	U	ND	U	ND	U	ND	U	--	--	--	--	--	5
Lead	ND	U	ND	U	ND	U	ND	U	--	--	--	--	--	0.0075
Manganese	2.9	L	6.8	L	6.8	L	2.6	L	--	--	--	--	--	0.15
Nickel	0.035		0.056		0.048		0.036		--	--	--	--	--	0.1
Zinc	0.049	J	0.069	J	0.067	J	0.025	J	--	--	--	--	--	5
SPLP Metals (mg/L)														
Cadmium	NA		NA		NA		NA		--	--	--	--	--	0.005
Lead	NA		NA		NA		NA		--	--	--	--	--	0.0075
Manganese	ND	U	0.12		0.13		ND	U	--	--	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #2274V-3 (Vacant Land)			Comparison Criteria					
	2274V-03-B03	2274V-03-B04	2274V-03-B05	MACs			TACO		
SAMPLE	2274V-03-B03 (0-2)	2274V-03-B04 (0-1)	2274V-03-B05 (0-2)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil	Soil	Soil						
DEPTH (feet)	0-2	0-1	0-2						
pH	8.4	7.8	8.2						
VOCs (mg/kg)									
Acetone	ND U	ND U	ND U	25	--	--	70,000	100,000	--
SVOCs (mg/kg)									
2-Methylnaphthalene	ND U	ND U	ND U	--	--	--	--	--	--
Acenaphthene	ND U	0.010 J	0.0073 J	570	--	--	4,700	120,000	--
Acenaphthylene	0.0074 J	0.014 J	0.0050 J	--	--	--	--	--	--
Anthracene	0.025 J	0.044	0.027 J	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.15	0.33	0.17	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.16 †	0.43 †	0.20 †	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.27	0.77	0.32	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.096	0.19	0.12	--	--	--	--	--	--
Benzo(k)fluoranthene	0.13	0.34	0.14	9	--	--	9	1,700	--
Bis(2-ethylhexyl) phthalate	ND U	0.089 J	ND U	46	--	--	46	4,100	--
Butyl benzyl phthalate	ND U	0.22	ND U	930	--	--	930	930	--
Carbazole	ND U	ND U	ND U	0.6	--	--	32	6,200	--
Chrysene	0.18	0.49	0.23	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	ND U	0.039	0.023 J	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.29	0.80	0.38	3,100	--	--	3,100	82,000	--
Fluorene	0.0079 J	0.0095 J	0.0064 J	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.089	0.18	0.11	0.9	1.6	0.9	1.6	170	--
Naphthalene	ND U	0.0079 J	ND U	1.8	--	--	170	1.8	--
N-Nitrosodiphenylamine	ND U	ND U	ND U	1	--	--	130	25,000	--
Phenanthrene	0.12	0.27	0.15	--	--	--	--	--	--
Pyrene	0.28	0.79	0.35	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)									
Antimony	ND U	0.30 J	0.22 J	5	--	--	31	82	--
Arsenic	5.8	5.2	5.8	11.3	13	--	13	61	--
Barium	39	37	31	1,500	--	--	5,500	14,000	--
Beryllium	0.40	0.33	0.33	22	--	--	160	410	--
Boron	6.0	6.0	9.9	40	--	--	16,000	41,000	--
Cadmium	0.84	0.39	0.29	5.2	--	--	78	200	--
Calcium	59,000	42,000	90,000	--	--	--	--	--	--
Chromium	16	13	10	21	--	--	230	690	--
Cobalt	7.5	6.0	6.7	20	--	--	4,700	12,000	--
Copper	22	21	20	2,900	--	--	2,900	8,200	--
Iron	13,000	11,000	11,000	15,000	15,900	--	--	--	--
Lead	47	63	74	107	--	--	400	700	--
Magnesium	25,000	21,000	43,000	325,000	--	--	--	730,000	--
Manganese	230	220	270	630	636	--	1,600	4,100	--
Mercury	0.066	ND U	ND U	0.89	--	--	10	0.1	--
Nickel	19	15	16	100	--	--	1,600	4,100	--
Potassium	1,100	1,200	1,200	--	--	--	--	--	--
Selenium	0.79	0.70	0.71	1.3	--	--	390	1,000	--
Silver	0.11 J	ND U	ND U	4.4	--	--	390	1,000	--
Sodium	160	170	120	--	--	--	--	--	--
Vanadium	14	13	11	550	--	--	550	1,400	--
Zinc	100	120	110	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)									
Barium	0.30 J	0.31 J	0.30 J	--	--	--	--	--	2
Cadmium	0.0075 L	0.0031 J	0.0032 J	--	--	--	--	--	0.005
Cobalt	ND U	ND U	0.012 J	--	--	--	--	--	1
Iron	ND U	ND U	ND U	--	--	--	--	--	5
Lead	ND U	ND U	ND U	--	--	--	--	--	0.0075
Manganese	1.4 L	1.2 L	1.6 L	--	--	--	--	--	0.15
Nickel	0.013 J	ND U	0.015 J	--	--	--	--	--	0.1
Zinc	0.14 J	0.16 J	0.18 J	--	--	--	--	--	5
SPLP Metals (mg/L)									
Cadmium	0.0023 J	NA	NA	--	--	--	--	--	0.005
Lead	NA	NA	NA	--	--	--	--	--	0.0075
Manganese	0.12	0.13	0.12	--	--	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #2274V-3 (Vacant Land)			Comparison Criteria					
	2274V-03-B06		2274V-03-B08	MACs			TACO		
BORING	2274V-03-B06 (0-8)		2274V-03-B08 (8-16)						
SAMPLE	2274V-03-B06 (0-8)		2274V-03-B08 (0-4)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil	Soil	Soil						
DEPTH (feet)	0-8	8-16	0-4						
pH	8.9	8.5	8.9						
VOCs (mg/kg)									
Acetone	ND U	ND U	0.019	25	--	--	70,000	100,000	--
SVOCs (mg/kg)									
2-Methylnaphthalene	ND U	ND U	0.014 J	--	--	--	--	--	--
Acenaphthene	ND U	ND U	0.0091 J	570	--	--	4,700	120,000	--
Acenaphthylene	ND U	ND U	0.013 J	--	--	--	--	--	--
Anthracene	0.011 J	ND U	0.026 J	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.071	0.018 J	0.15	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.072	0.019 J	0.17 †	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.11	0.023 J	0.27	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.035	0.015 J	0.075	--	--	--	--	--	--
Benzo(k)fluoranthene	0.046	0.013 J	0.094	9	--	--	9	1,700	--
Bis(2-ethylhexyl) phthalate	ND U	ND U	ND U	46	--	--	46	4,100	--
Butyl benzyl phthalate	ND U	ND U	ND U	930	--	--	930	930	--
Carbazole	ND U	ND U	ND U	0.6	--	--	32	6,200	--
Chrysene	0.076	0.024 J	0.19	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	ND U	ND U	0.017 J	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.13	0.026 J	0.27	3,100	--	--	3,100	82,000	--
Fluorene	ND U	ND U	0.0081 J	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	ND U	0.015 J	0.068	0.9	1.6	0.9	1.6	170	--
Naphthalene	0.0053 J	ND U	0.010 J	1.8	--	--	170	1.8	--
N-Nitrosodiphenylamine	ND U	ND U	ND U	1	--	--	130	25,000	--
Phenanthrene	0.053	0.012 J	0.12	--	--	--	--	--	--
Pyrene	0.13	0.028 J	0.29	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)									
Antimony	0.27 J	ND U	ND U	5	--	--	31	82	--
Arsenic	2.2	7.3	7.0	11.3	13	--	13	61	--
Barium	10	31	54	1,500	--	--	5,500	14,000	--
Beryllium	0.11 J	0.34	0.59	22	--	--	160	410	--
Boron	7.6	7.6	8.1	40	--	--	16,000	41,000	--
Cadmium	0.14	0.22	0.46	5.2	--	--	78	200	--
Calcium	190,000	96,000	48,000	--	--	--	--	--	--
Chromium	3.6	8.7	17	21	--	--	230	690	--
Cobalt	2.1	7.6	10	20	--	--	4,700	12,000	--
Copper	12	20	24	2,900	--	--	2,900	8,200	--
Iron	4,400	13,000	17,000 †m	15,000	15,900	--	--	--	--
Lead	53	38	74	107	--	--	400	700	--
Magnesium	120,000	43,000	23,000	325,000	--	--	--	730,000	--
Manganese	140	310	340	630	636	--	1,600	4,100	--
Mercury	ND U	ND U	0.064	0.89	--	--	10	0.1	--
Nickel	5.3	18	24	100	--	--	1,600	4,100	--
Potassium	490	1,100	1,800	--	--	--	--	--	--
Selenium	ND U	0.36 J	0.86	1.3	--	--	390	1,000	--
Silver	ND U	ND U	ND U	4.4	--	--	390	1,000	--
Sodium	240	1,000	1,100	--	--	--	--	--	--
Vanadium	4.0	12	19	550	--	--	550	1,400	--
Zinc	28 J	67	86	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)									
Barium	0.23 J	0.26 J	0.33 J	--	--	--	--	--	2
Cadmium	0.0033 J	0.0030 J	0.0047 J	--	--	--	--	--	0.005
Cobalt	0.014 J	0.018 J	0.010 J	--	--	--	--	--	1
Iron	0.31 J	ND U	ND U	--	--	--	--	--	5
Lead	0.032 L	ND U	ND U	--	--	--	--	--	0.0075
Manganese	1.3 L	2.8 L	1.9 L	--	--	--	--	--	0.15
Nickel	0.023 J	0.032	0.015 J	--	--	--	--	--	0.1
Zinc	0.077 J	0.034 J	0.058 J	--	--	--	--	--	5
SPLP Metals (mg/L)									
Cadmium	NA	NA	NA	--	--	--	--	--	0.005
Lead	0.12 L	NA	NA	--	--	--	--	--	0.0075
Manganese	0.057	0.69 L	0.69 L	--	--	--	--	--	0.15

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15B
CONTAMINANTS OF CONCERN

SITE	ISGS #2274V-3 (Vacant Land)				Comparison Criteria					
	2274V-03-B09			2274V-03-B10	MACs			TACO		
BORING	2274V-03-B09 (0-7)	2274V-03-B09 (7-14)	2274V-03-B09 (14-20)	2274V-03-B10 (16-20)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE										
MATRIX	Soil	Soil	Soil	Soil						
DEPTH (feet)	0-7	7-14	14-20	16-20						
pH	7.9	8.0	7.8	7.6						
PID > Bkgd.		--		--						
VOCs (None Detected)										
SVOCs (mg/kg)										
Acenaphthylene	0.011 J	ND U	ND U	ND U	--	--	--	--	--	--
Anthracene	0.025 J	ND U	ND U	ND U	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.13	ND U	ND U	ND U	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.15 †	ND U	ND U	ND U	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.25	ND U	ND U	ND U	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.060	ND U	ND U	ND U	--	--	--	--	--	--
Benzo(k)fluoranthene	0.091	ND U	ND U	ND U	9	--	--	9	1,700	--
Chrysene	0.15	ND U	0.016 J	0.022 J	88	--	--	88	17,000	--
Fluoranthene	0.26	ND U	0.013 J	ND U	3,100	--	--	3,100	82,000	--
Fluorene	0.0061 J	ND U	ND U	ND U	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.062	ND U	ND U	ND U	0.9	1.6	0.9	1.6	170	--
Naphthalene	0.0076 J	ND U	ND U	ND U	1.8	--	--	170	1.8	--
Phenanthrene	0.090	ND U	0.0090 J	0.017 J	--	--	--	--	--	--
Pyrene	0.24	ND U	0.022 J	0.023 J	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)										
Arsenic	8.1	3.0	8.0	8.8	11.3	13	--	13	61	--
Barium	31	9.9	14	15	1,500	--	--	5,500	14,000	--
Beryllium	0.40	0.30	0.31	0.32	22	--	--	160	410	--
Boron	8.9	15	8.7	10	40	--	--	16,000	41,000	--
Cadmium	0.34	ND U	0.26	ND U	5.2	--	--	78	200	--
Calcium	130,000	220,000	170,000	190,000	--	--	--	--	--	--
Chromium	9.5	5.4	6.5	6.9	21	--	--	230	690	--
Cobalt	8.4	3.7	8.6	8.8	20	--	--	4,700	12,000	--
Copper	22	8.3	20	19	2,900	--	--	2,900	8,200	--
Iron	14,000	8,000	13,000	14,000	15,000	15,900	--	--	--	--
Lead	94	4.7	12	11	107	--	--	400	700	--
Magnesium	41,000	130,000	51,000	110,000	325,000	--	--	--	730,000	--
Manganese	330	280	380	350	630	636	--	1,600	4,100	--
Mercury	0.032	0.010 J	0.021	0.024	0.89	--	--	10	0.1	--
Nickel	19	10	18	20	100	--	--	1,600	4,100	--
Potassium	1,200	1,300	1,200	1,300	--	--	--	--	--	--
Silver	0.21 J	0.11 J	0.14 J	0.14 J	4.4	--	--	390	1,000	--
Sodium	310	250	500	200	--	--	--	--	--	--
Thallium	ND U	ND U	0.27 J	ND U	2.6	--	--	6.3	160	--
Vanadium	11	6.9	8.5	8.8	550	--	--	550	1,400	--
Zinc	69	23	45	32	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)										
Barium	0.36 J	0.15 J	0.22 J	0.22 J	--	--	--	--	--	2
Boron	0.084 J	0.082 J	0.060 J	0.083 J	--	--	--	--	--	2
Cadmium	0.0043 J	0.0021 J	0.0034 J	0.0025 J	--	--	--	--	--	0.005
Cobalt	ND U	0.013 J	0.041	0.045	--	--	--	--	--	1
Lead	0.020 L	ND U	ND U	ND U	--	--	--	--	--	0.0075
Manganese	2.0 L	1.3 L	2.4 L	2.4 L	--	--	--	--	--	0.15
Nickel	ND U	ND U	0.085	0.10	--	--	--	--	--	0.1
Zinc	0.055 J	ND U	0.024 J	0.028 J	--	--	--	--	--	5
SPLP Metals (mg/L)										
Lead	0.13 L	NA	NA	NA	--	--	--	--	--	0.0075
Manganese	0.25 L	0.026	0.028	0.037	--	--	--	--	--	0.15
Nickel	NA	NA	NA	ND U	--	--	--	--	--	0.1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 500-129676-3
Client Project/Site: IDOT - IL 83 - WO 015

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/29/2017 4:39:24 PM

Richard Wright, Senior Project Manager
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LINKS

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Job ID: 500-129676-3

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-129676-3

Comments

No additional comments.

Receipt

The samples were received on 6/15/2017 4:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 5.6° 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 500-390387 had 1 analyte outside control limits: 2,4-Dinitrophenol. These results have been reported and qualified. (LCS 500-390387/2-A)

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

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

Metals

Method(s) 6010B: The continuing calibration verification (CCV) associated with batch 500-390443 recovered above the upper control limit for Zinc. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: 2274V-03-B08 (0-4) (500-129676-3), 2274V-03-B07 (0-4) (500-129676-4), 2274V-03-B06 (0-8) (500-129676-5), 2274V-03-B06 (8-16) (500-129676-6), 2274V-03-B02 (0-4) (500-129676-7), 2274V-03-B04 (0-1) (500-129676-8), 2274V-03-B05 (0-2) (500-129676-9), 2274V-03-B03 (0-2) (500-129676-10), 2274V-03-B01 (0-8) (500-129676-11), 2274V-03-B01 (8-16) (500-129676-12), 2274V-03-B01 (8-16)D (500-129676-13) and (500-129676-E-20-D).

Method(s) 6010B: The laboratory control sample (LCS) for preparation batch 500-390154 and 500-390310 and analytical batch 500-390443 recovered outside control limits for the following analyte: Iron. The analyte was biased high in the LCS and were not detected in the associated samples 2274V-03-B08 (0-4) (500-129676-3), 2274V-03-B07 (0-4) (500-129676-4), 2274V-03-B06 (0-8) (500-129676-5), 2274V-03-B06 (8-16) (500-129676-6), 2274V-03-B02 (0-4) (500-129676-7), 2274V-03-B04 (0-1) (500-129676-8), 2274V-03-B05 (0-2) (500-129676-9), 2274V-03-B03 (0-2) (500-129676-10), 2274V-03-B01 (0-8) (500-129676-11), 2274V-03-B01 (8-16) (500-129676-12), 2274V-03-B01 (8-16)D (500-129676-13), (500-129676-E-20-D), (500-129676-E-20-E DU), (500-129676-E-20-F MS) and (500-129676-E-20-D SD) ; therefore, the data have been reported.

Method(s) 6010B: The method blank for preparation batch 500-390633 and analytical batch 500-390815 contained Zinc above the reporting limit (RL). Associated samples 2274V-03-B08 (0-4) (500-129676-3), 2274V-03-B07 (0-4) (500-129676-4), 2274V-03-B06 (0-8) (500-129676-5), 2274V-03-B06 (8-16) (500-129676-6), 2274V-03-B02 (0-4) (500-129676-7), 2274V-03-B04 (0-1) (500-129676-8), 2274V-03-B05 (0-2) (500-129676-9), 2274V-03-B03 (0-2) (500-129676-10), 2274V-03-B01 (0-8) (500-129676-11), 2274V-03-B01 (8-16) (500-129676-12), 2274V-03-B01 (8-16)D (500-129676-13) and (500-129676-E-17-H) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 6020A:

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.

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Job ID: 500-129676-3 (Continued)

Laboratory: TestAmerica Chicago (Continued)

Organic Prep

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

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Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B08 (0-4)

Lab Sample ID: 500-129676-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	0.019		0.014	0.0062	mg/Kg	1		☼	8260B	Total/NA
Naphthalene	0.010	J	0.036	0.0055	mg/Kg	1		☼	8270D	Total/NA
2-Methylnaphthalene	0.014	J	0.073	0.0066	mg/Kg	1		☼	8270D	Total/NA
Acenaphthylene	0.013	J	0.036	0.0047	mg/Kg	1		☼	8270D	Total/NA
Acenaphthene	0.0091	J	0.036	0.0065	mg/Kg	1		☼	8270D	Total/NA
Fluorene	0.0081	J	0.036	0.0051	mg/Kg	1		☼	8270D	Total/NA
Phenanthrene	0.12		0.036	0.0050	mg/Kg	1		☼	8270D	Total/NA
Anthracene	0.026	J	0.036	0.0060	mg/Kg	1		☼	8270D	Total/NA
Fluoranthene	0.27		0.036	0.0067	mg/Kg	1		☼	8270D	Total/NA
Pyrene	0.29		0.036	0.0071	mg/Kg	1		☼	8270D	Total/NA
Benzo[a]anthracene	0.15		0.036	0.0048	mg/Kg	1		☼	8270D	Total/NA
Chrysene	0.19		0.036	0.0098	mg/Kg	1		☼	8270D	Total/NA
Benzo[b]fluoranthene	0.27		0.036	0.0078	mg/Kg	1		☼	8270D	Total/NA
Benzo[k]fluoranthene	0.094		0.036	0.011	mg/Kg	1		☼	8270D	Total/NA
Benzo[a]pyrene	0.17		0.036	0.0070	mg/Kg	1		☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.068		0.036	0.0093	mg/Kg	1		☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.017	J	0.036	0.0070	mg/Kg	1		☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.075		0.036	0.012	mg/Kg	1		☼	8270D	Total/NA
Arsenic	7.0		0.55	0.19	mg/Kg	1		☼	6010B	Total/NA
Barium	54		0.55	0.062	mg/Kg	1		☼	6010B	Total/NA
Beryllium	0.59		0.22	0.051	mg/Kg	1		☼	6010B	Total/NA
Boron	8.1		2.7	0.25	mg/Kg	1		☼	6010B	Total/NA
Cadmium	0.46		0.11	0.020	mg/Kg	1		☼	6010B	Total/NA
Calcium	48000	B	110	19	mg/Kg	10		☼	6010B	Total/NA
Chromium	17		0.55	0.27	mg/Kg	1		☼	6010B	Total/NA
Cobalt	10		0.27	0.072	mg/Kg	1		☼	6010B	Total/NA
Copper	24		0.55	0.15	mg/Kg	1		☼	6010B	Total/NA
Iron	17000	B	11	5.7	mg/Kg	1		☼	6010B	Total/NA
Lead	74		0.27	0.13	mg/Kg	1		☼	6010B	Total/NA
Magnesium	23000	B	5.5	2.7	mg/Kg	1		☼	6010B	Total/NA
Manganese	340	B	0.55	0.079	mg/Kg	1		☼	6010B	Total/NA
Nickel	24		0.55	0.16	mg/Kg	1		☼	6010B	Total/NA
Potassium	1800		27	9.7	mg/Kg	1		☼	6010B	Total/NA
Selenium	0.86		0.55	0.32	mg/Kg	1		☼	6010B	Total/NA
Sodium	1100		55	8.1	mg/Kg	1		☼	6010B	Total/NA
Vanadium	19		0.27	0.064	mg/Kg	1		☼	6010B	Total/NA
Zinc	86	B	1.1	0.48	mg/Kg	1		☼	6010B	Total/NA
Barium	0.33	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.11	J B	0.50	0.050	mg/L	1			6010B	TCLP
Cadmium	0.0047	J	0.0050	0.0020	mg/L	1			6010B	TCLP
Cobalt	0.010	J	0.025	0.010	mg/L	1			6010B	TCLP
Manganese	1.9		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.015	J	0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.058	J ^	0.50	0.020	mg/L	1			6010B	TCLP
Manganese	0.69		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.064	B	0.018	0.0060	mg/Kg	1		☼	7471B	Total/NA
pH	8.9		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 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B06 (0-8)

Lab Sample ID: 500-129676-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Naphthalene	0.0053	J	0.034	0.0053	mg/Kg	1	☼	8270D	Total/NA	
Phenanthrene	0.053		0.034	0.0048	mg/Kg	1	☼	8270D	Total/NA	
Anthracene	0.011	J	0.034	0.0058	mg/Kg	1	☼	8270D	Total/NA	
Fluoranthene	0.13		0.034	0.0064	mg/Kg	1	☼	8270D	Total/NA	
Pyrene	0.13		0.034	0.0069	mg/Kg	1	☼	8270D	Total/NA	
Benzo[a]anthracene	0.071		0.034	0.0047	mg/Kg	1	☼	8270D	Total/NA	
Chrysene	0.076		0.034	0.0094	mg/Kg	1	☼	8270D	Total/NA	
Benzo[b]fluoranthene	0.11		0.034	0.0075	mg/Kg	1	☼	8270D	Total/NA	
Benzo[k]fluoranthene	0.046		0.034	0.010	mg/Kg	1	☼	8270D	Total/NA	
Benzo[a]pyrene	0.072		0.034	0.0067	mg/Kg	1	☼	8270D	Total/NA	
Benzo[g,h,i]perylene	0.035		0.034	0.011	mg/Kg	1	☼	8270D	Total/NA	
Antimony	0.27	J	1.0	0.20	mg/Kg	1	☼	6010B	Total/NA	
Arsenic	2.2		0.51	0.17	mg/Kg	1	☼	6010B	Total/NA	
Barium	10		0.51	0.058	mg/Kg	1	☼	6010B	Total/NA	
Beryllium	0.11	J	0.20	0.047	mg/Kg	1	☼	6010B	Total/NA	
Boron	7.6		2.5	0.24	mg/Kg	1	☼	6010B	Total/NA	
Cadmium	0.14		0.10	0.018	mg/Kg	1	☼	6010B	Total/NA	
Calcium	190000	B	100	17	mg/Kg	10	☼	6010B	Total/NA	
Chromium	3.6		0.51	0.25	mg/Kg	1	☼	6010B	Total/NA	
Cobalt	2.1		0.25	0.066	mg/Kg	1	☼	6010B	Total/NA	
Copper	12		0.51	0.14	mg/Kg	1	☼	6010B	Total/NA	
Iron	4400	B	10	5.3	mg/Kg	1	☼	6010B	Total/NA	
Lead	53		0.25	0.12	mg/Kg	1	☼	6010B	Total/NA	
Magnesium	120000	B	51	25	mg/Kg	10	☼	6010B	Total/NA	
Manganese	140	B	0.51	0.074	mg/Kg	1	☼	6010B	Total/NA	
Nickel	5.3		0.51	0.15	mg/Kg	1	☼	6010B	Total/NA	
Potassium	490		25	9.0	mg/Kg	1	☼	6010B	Total/NA	
Sodium	240		51	7.5	mg/Kg	1	☼	6010B	Total/NA	
Vanadium	4.0		0.25	0.060	mg/Kg	1	☼	6010B	Total/NA	
Zinc	28	B F1 F2	1.0	0.44	mg/Kg	1	☼	6010B	Total/NA	
Barium	0.23	J	0.50	0.050	mg/L	1		6010B	TCLP	
Boron	0.12	J B	0.50	0.050	mg/L	1		6010B	TCLP	
Cadmium	0.0033	J	0.0050	0.0020	mg/L	1		6010B	TCLP	
Cobalt	0.014	J	0.025	0.010	mg/L	1		6010B	TCLP	
Iron	0.31	J *	0.40	0.20	mg/L	1		6010B	TCLP	
Lead	0.032		0.0075	0.0075	mg/L	1		6010B	TCLP	
Manganese	1.3		0.025	0.010	mg/L	1		6010B	TCLP	
Nickel	0.023	J	0.025	0.010	mg/L	1		6010B	TCLP	
Zinc	0.077	J ^	0.50	0.020	mg/L	1		6010B	TCLP	
Lead	0.12		0.0075	0.0075	mg/L	1		6010B	SPLP East	
Manganese	0.057		0.025	0.010	mg/L	1		6010B	SPLP East	
Mercury	0.025	B	0.016	0.0053	mg/Kg	1	☼	7471B	Total/NA	
pH	8.9		0.2	0.2	SU	1		9045D	Total/NA	

Client Sample ID: 2274V-03-B06 (8-16)

Lab Sample ID: 500-129676-6

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B06 (8-16) (Continued)

Lab Sample ID: 500-129676-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.012	J	0.040	0.0057	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.026	J	0.040	0.0075	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.028	J	0.040	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.018	J	0.040	0.0055	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.024	J	0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.023	J	0.040	0.0088	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.013	J	0.040	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.019	J	0.040	0.0079	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.015	J	0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.015	J	0.040	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.3		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	31		0.55	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.34		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	7.6		2.7	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.22		0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	96000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Chromium	8.7		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.6		0.27	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	13000	B	11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	38		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	43000	B	5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	310	B	0.55	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	18		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1100		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.36	J	0.55	0.32	mg/Kg	1	☼	6010B	Total/NA
Sodium	1000		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.27	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	67	B	1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.26	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0030	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.018	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.8		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.032		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.034	J ^	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.69		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.040	B	0.021	0.0069	mg/Kg	1	☼	7471B	Total/NA
pH	8.5		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-03-B02 (0-4)

Lab Sample ID: 500-129676-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.016	J	0.036	0.0050	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.017	J	0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.021	J	0.036	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.011	J	0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.024	J	0.036	0.0098	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.014	J	0.036	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.012	J	0.036	0.0070	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 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B02 (0-4) (Continued)

Lab Sample ID: 500-129676-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzof[g,h,i]perylene	0.018	J	0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.0		0.53	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	20		0.53	0.060	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.34		0.21	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	9.8		2.6	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14		0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	120000	B	110	18	mg/Kg	10	☼	6010B	Total/NA
Chromium	8.7		0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.1		0.26	0.069	mg/Kg	1	☼	6010B	Total/NA
Copper	18		0.53	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	13000	B	11	5.5	mg/Kg	1	☼	6010B	Total/NA
Lead	15		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	46000	B	5.3	2.6	mg/Kg	1	☼	6010B	Total/NA
Manganese	290	B	0.53	0.077	mg/Kg	1	☼	6010B	Total/NA
Nickel	20		0.53	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		26	9.4	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.36	J	0.53	0.31	mg/Kg	1	☼	6010B	Total/NA
Sodium	160		53	7.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.26	0.062	mg/Kg	1	☼	6010B	Total/NA
Zinc	44	B	1.1	0.46	mg/Kg	1	☼	6010B	Total/NA
Barium	0.12	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0029	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.023	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.6		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.036		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.025	J ^	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.030	B	0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	7.6		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-03-B04 (0-1)

Lab Sample ID: 500-129676-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0079	J	0.036	0.0056	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.014	J	0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.010	J	0.036	0.0065	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0095	J	0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.27		0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.044		0.036	0.0061	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.80		0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.79		0.036	0.0072	mg/Kg	1	☼	8270D	Total/NA
Butyl benzyl phthalate	0.22		0.18	0.069	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.33		0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.49		0.036	0.0099	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.089	J	0.18	0.066	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.77		0.036	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.34		0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.43		0.036	0.0070	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.18		0.036	0.0094	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.039		0.036	0.0070	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 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B04 (0-1) (Continued)

Lab Sample ID: 500-129676-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzof[g,h,i]perylene	0.19		0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.30	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.2		0.54	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	37		0.54	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.33		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	6.0		2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.39		0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	42000	B	110	18	mg/Kg	10	☼	6010B	Total/NA
Chromium	13		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.0		0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Copper	21		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	11000	B	11	5.6	mg/Kg	1	☼	6010B	Total/NA
Lead	63		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	21000	B	5.4	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	220	B	0.54	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	15		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1200		27	9.6	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.70		0.54	0.32	mg/Kg	1	☼	6010B	Total/NA
Sodium	170		54	8.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	13		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	120	B	1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0031	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.16	J ^	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.13		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.045	B	0.017	0.0057	mg/Kg	1	☼	7471B	Total/NA
pH	7.8		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-03-B05 (0-2)

Lab Sample ID: 500-129676-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0050	J	0.035	0.0046	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.0073	J	0.035	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0064	J	0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.15		0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.027	J	0.035	0.0059	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.38		0.035	0.0065	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.35		0.035	0.0070	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.17		0.035	0.0047	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.23		0.035	0.0096	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.32		0.035	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.14		0.035	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.20		0.035	0.0068	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.11		0.035	0.0091	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.023	J	0.035	0.0068	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.12		0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.22	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.8		0.54	0.18	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 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B05 (0-2) (Continued)

Lab Sample ID: 500-129676-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	31		0.54	0.061	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.33		0.21	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	9.9		2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.29		0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	90000	B	110	18	mg/Kg	10	☼	6010B	Total/NA
Chromium	10		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.7		0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	11000	B	11	5.6	mg/Kg	1	☼	6010B	Total/NA
Lead	74		0.27	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	43000	B	5.4	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	270	B	0.54	0.078	mg/Kg	1	☼	6010B	Total/NA
Nickel	16		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1200		27	9.5	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.71		0.54	0.32	mg/Kg	1	☼	6010B	Total/NA
Sodium	120		54	7.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	11		0.27	0.063	mg/Kg	1	☼	6010B	Total/NA
Zinc	110	B	1.1	0.47	mg/Kg	1	☼	6010B	Total/NA
Barium	0.30	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.12	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0032	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	1.6		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.18	J ^	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.12		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.040	B	0.017	0.0056	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-03-B03 (0-2)

Lab Sample ID: 500-129676-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0074	J	0.035	0.0046	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0079	J	0.035	0.0050	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.12		0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.025	J	0.035	0.0059	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.29		0.035	0.0065	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.28		0.035	0.0070	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.15		0.035	0.0047	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.18		0.035	0.0096	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.27		0.035	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.13		0.035	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.16		0.035	0.0068	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.089		0.035	0.0091	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.096		0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.8		0.53	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	39		0.53	0.061	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.40		0.21	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	6.0		2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.84		0.11	0.019	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 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B03 (0-2) (Continued)

Lab Sample ID: 500-129676-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	59000	B	110	18	mg/Kg	10	☼	6010B	Total/NA
Chromium	16		0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.5		0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Copper	22		0.53	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	13000	B	11	5.5	mg/Kg	1	☼	6010B	Total/NA
Lead	47		0.27	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	25000	B	5.3	2.6	mg/Kg	1	☼	6010B	Total/NA
Manganese	230	B	0.53	0.077	mg/Kg	1	☼	6010B	Total/NA
Nickel	19		0.53	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1100		27	9.4	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.79		0.53	0.31	mg/Kg	1	☼	6010B	Total/NA
Silver	0.11	J	0.27	0.068	mg/Kg	1	☼	6010B	Total/NA
Sodium	160		53	7.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.27	0.063	mg/Kg	1	☼	6010B	Total/NA
Zinc	100	B	1.1	0.47	mg/Kg	1	☼	6010B	Total/NA
Barium	0.30	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0075		0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	1.4		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.14	J ^	0.50	0.020	mg/L	1		6010B	TCLP
Cadmium	0.0023	J	0.0050	0.0020	mg/L	1		6010B	SPLP East
Manganese	0.12		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.066	B	0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	8.4		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-03-B01 (0-8)

Lab Sample ID: 500-129676-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0072	J	0.035	0.0055	mg/Kg	1	☼	8270D	Total/NA
N-Nitrosodiphenylamine	0.044	J	0.18	0.042	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.037		0.035	0.0050	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0069	J	0.035	0.0059	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.080		0.035	0.0066	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.083		0.035	0.0071	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.043		0.035	0.0048	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.064		0.035	0.0097	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.081		0.035	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.031	J	0.035	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.049		0.035	0.0069	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.025	J	0.035	0.0092	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.031	J	0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.4		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	24		0.55	0.063	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.29		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	7.0		2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.19		0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	10000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Chromium	7.6		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.1		0.28	0.072	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 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B01 (0-8) (Continued)

Lab Sample ID: 500-129676-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	21		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	13000	B	11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	26		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	36000	B	5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	330	B	0.55	0.080	mg/Kg	1	☼	6010B	Total/NA
Nickel	18		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1000		28	9.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.54	J	0.55	0.33	mg/Kg	1	☼	6010B	Total/NA
Sodium	250		55	8.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	10		0.28	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	61	B	1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.12	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0034	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.024	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.9		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.035		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.049	J ^	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.036	B	0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	7.6		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-03-B01 (8-16)

Lab Sample ID: 500-129676-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.017	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.014	J	0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.022	J	0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0080	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.022	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Arsenic	9.8		0.54	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	24		0.54	0.061	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.31		0.21	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	7.7		2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.21		0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	110000	B	110	18	mg/Kg	10	☼	6010B	Total/NA
Chromium	8.0		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	10		0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Copper	23		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	16000	B	11	5.6	mg/Kg	1	☼	6010B	Total/NA
Lead	20		0.27	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	37000	B	5.4	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	400	B	0.54	0.078	mg/Kg	1	☼	6010B	Total/NA
Nickel	22		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1200		27	9.5	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.89		0.54	0.32	mg/Kg	1	☼	6010B	Total/NA
Sodium	200		54	7.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	11		0.27	0.063	mg/Kg	1	☼	6010B	Total/NA
Zinc	62	B	1.1	0.47	mg/Kg	1	☼	6010B	Total/NA
Barium	0.28	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.10	J B	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 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B01 (8-16) (Continued)

Lab Sample ID: 500-129676-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Cadmium	0.0033	J	0.0050	0.0020	mg/L	1			6010B	TCLP
Cobalt	0.048		0.025	0.010	mg/L	1			6010B	TCLP
Manganese	6.8		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.056		0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.069	J ^	0.50	0.020	mg/L	1			6010B	TCLP
Manganese	0.12		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.040	B	0.019	0.0062	mg/Kg	1	☼		7471B	Total/NA
pH	7.7		0.2	0.2	SU	1			9045D	Total/NA

Client Sample ID: 2274V-03-B01 (8-16)D

Lab Sample ID: 500-129676-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
2-Methylnaphthalene	0.0075	J	0.079	0.0072	mg/Kg	1		☼	8270D	Total/NA
Phenanthrene	0.023	J	0.039	0.0055	mg/Kg	1		☼	8270D	Total/NA
Fluoranthene	0.018	J	0.039	0.0073	mg/Kg	1		☼	8270D	Total/NA
Pyrene	0.031	J	0.039	0.0078	mg/Kg	1		☼	8270D	Total/NA
Benzo[a]anthracene	0.012	J	0.039	0.0053	mg/Kg	1		☼	8270D	Total/NA
Chrysene	0.025	J	0.039	0.011	mg/Kg	1		☼	8270D	Total/NA
Benzo[b]fluoranthene	0.023	J	0.039	0.0084	mg/Kg	1		☼	8270D	Total/NA
Benzo[a]pyrene	0.011	J	0.039	0.0076	mg/Kg	1		☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.014	J	0.039	0.013	mg/Kg	1		☼	8270D	Total/NA
Arsenic	8.7		0.52	0.18	mg/Kg	1		☼	6010B	Total/NA
Barium	24		0.52	0.059	mg/Kg	1		☼	6010B	Total/NA
Beryllium	0.29		0.21	0.048	mg/Kg	1		☼	6010B	Total/NA
Boron	7.5		2.6	0.24	mg/Kg	1		☼	6010B	Total/NA
Cadmium	0.22		0.10	0.019	mg/Kg	1		☼	6010B	Total/NA
Calcium	130000	B	100	17	mg/Kg	10		☼	6010B	Total/NA
Chromium	7.4		0.52	0.26	mg/Kg	1		☼	6010B	Total/NA
Cobalt	8.8		0.26	0.068	mg/Kg	1		☼	6010B	Total/NA
Copper	21		0.52	0.14	mg/Kg	1		☼	6010B	Total/NA
Iron	14000	B	10	5.4	mg/Kg	1		☼	6010B	Total/NA
Lead	27		0.26	0.12	mg/Kg	1		☼	6010B	Total/NA
Magnesium	38000	B	5.2	2.6	mg/Kg	1		☼	6010B	Total/NA
Manganese	380	B	0.52	0.075	mg/Kg	1		☼	6010B	Total/NA
Nickel	19		0.52	0.15	mg/Kg	1		☼	6010B	Total/NA
Potassium	1100		26	9.1	mg/Kg	1		☼	6010B	Total/NA
Selenium	0.48	J	0.52	0.30	mg/Kg	1		☼	6010B	Total/NA
Sodium	200		52	7.6	mg/Kg	1		☼	6010B	Total/NA
Vanadium	10		0.26	0.061	mg/Kg	1		☼	6010B	Total/NA
Zinc	63	B	1.0	0.45	mg/Kg	1		☼	6010B	Total/NA
Barium	0.23	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.12	J B	0.50	0.050	mg/L	1			6010B	TCLP
Cadmium	0.0034	J	0.0050	0.0020	mg/L	1			6010B	TCLP
Cobalt	0.044		0.025	0.010	mg/L	1			6010B	TCLP
Manganese	6.8		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.048		0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.067	J ^	0.50	0.020	mg/L	1			6010B	TCLP
Manganese	0.13		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.046	B	0.020	0.0066	mg/Kg	1	☼		7471B	Total/NA
pH	7.6		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 83 - WO 015

TestAmerica Job ID: 500-129676-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-129676-3	2274V-03-B08 (0-4)	Solid	06/15/17 10:50	06/15/17 16:25
500-129676-5	2274V-03-B06 (0-8)	Solid	06/15/17 11:35	06/15/17 16:25
500-129676-6	2274V-03-B06 (8-16)	Solid	06/15/17 11:40	06/15/17 16:25
500-129676-7	2274V-03-B02 (0-4)	Solid	06/15/17 12:30	06/15/17 16:25
500-129676-8	2274V-03-B04 (0-1)	Solid	06/15/17 12:45	06/15/17 16:25
500-129676-9	2274V-03-B05 (0-2)	Solid	06/15/17 12:55	06/15/17 16:25
500-129676-10	2274V-03-B03 (0-2)	Solid	06/15/17 13:08	06/15/17 16:25
500-129676-11	2274V-03-B01 (0-8)	Solid	06/15/17 13:50	06/15/17 16:25
500-129676-12	2274V-03-B01 (8-16)	Solid	06/15/17 13:55	06/15/17 16:25
500-129676-13	2274V-03-B01 (8-16)D	Solid	06/15/17 13:55	06/15/17 16:25

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B08 (0-4)

Lab Sample ID: 500-129676-3

Date Collected: 06/15/17 10:50

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 89.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.019		0.014	0.0062	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Benzene	<0.0014		0.0014	0.00036	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Bromodichloromethane	<0.0014		0.0014	0.00029	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Bromoform	<0.0014		0.0014	0.00041	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Bromomethane	<0.0035		0.0035	0.0013	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
2-Butanone (MEK)	<0.0035		0.0035	0.0016	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Carbon disulfide	<0.0035		0.0035	0.00074	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Carbon tetrachloride	<0.0014		0.0014	0.00041	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Chlorobenzene	<0.0014		0.0014	0.00052	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Chloroethane	<0.0035		0.0035	0.0010	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Chloroform	<0.0014		0.0014	0.00049	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Chloromethane	<0.0035		0.0035	0.0014	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
cis-1,2-Dichloroethene	<0.0014		0.0014	0.00040	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
cis-1,3-Dichloropropene	<0.0014		0.0014	0.00043	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Dibromochloromethane	<0.0014		0.0014	0.00046	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
1,1-Dichloroethane	<0.0014		0.0014	0.00048	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
1,2-Dichloroethane	<0.0035		0.0035	0.0011	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
1,1-Dichloroethene	<0.0014		0.0014	0.00049	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
1,2-Dichloropropane	<0.0014		0.0014	0.00037	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
1,3-Dichloropropane, Total	<0.0014		0.0014	0.00050	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Ethylbenzene	<0.0014		0.0014	0.00068	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
2-Hexanone	<0.0035		0.0035	0.0011	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Methylene Chloride	<0.0035		0.0035	0.0014	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
4-Methyl-2-pentanone (MIBK)	<0.0035		0.0035	0.0010	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Methyl tert-butyl ether	<0.0014		0.0014	0.00042	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Styrene	<0.0014		0.0014	0.00043	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
1,1,2,2-Tetrachloroethane	<0.0014		0.0014	0.00045	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Tetrachloroethene	<0.0014		0.0014	0.00048	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Toluene	<0.0014		0.0014	0.00036	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
trans-1,2-Dichloroethene	<0.0014		0.0014	0.00063	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
trans-1,3-Dichloropropene	<0.0014		0.0014	0.00050	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
1,1,1-Trichloroethane	<0.0014		0.0014	0.00047	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
1,1,2-Trichloroethane	<0.0014		0.0014	0.00061	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Trichloroethene	<0.0014		0.0014	0.00048	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Vinyl acetate	<0.0035		0.0035	0.0012	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Vinyl chloride	<0.0014		0.0014	0.00063	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1
Xylenes, Total	<0.0028		0.0028	0.00045	mg/Kg	☼	06/15/17 17:16	06/19/17 16:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		75 - 131	06/15/17 17:16	06/19/17 16:37	1
Dibromofluoromethane	93		75 - 126	06/15/17 17:16	06/19/17 16:37	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 134	06/15/17 17:16	06/19/17 16:37	1
Toluene-d8 (Surr)	90		75 - 124	06/15/17 17:16	06/19/17 16:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.080	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B08 (0-4)

Lab Sample ID: 500-129676-3

Date Collected: 06/15/17 10:50

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 89.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Naphthalene	0.010	J	0.036	0.0055	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
2,4-Dichlorophenol	<0.36		0.36	0.085	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
2-Methylnaphthalene	0.014	J	0.073	0.0066	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
2,4-Dinitrophenol	<0.73	*	0.73	0.63	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Acenaphthylene	0.013	J	0.036	0.0047	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Acenaphthene	0.0091	J	0.036	0.0065	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Fluorene	0.0081	J	0.036	0.0051	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Hexachlorobenzene	<0.073		0.073	0.0083	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Phenanthrene	0.12		0.036	0.0050	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Anthracene	0.026	J	0.036	0.0060	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Carbazole	<0.18		0.18	0.090	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Fluoranthene	0.27		0.036	0.0067	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Pyrene	0.29		0.036	0.0071	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Butyl benzyl phthalate	<0.18		0.18	0.068	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Benzo[a]anthracene	0.15		0.036	0.0048	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B08 (0-4)

Lab Sample ID: 500-129676-3

Date Collected: 06/15/17 10:50

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 89.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.19		0.036	0.0098	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Benzo[b]fluoranthene	0.27		0.036	0.0078	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Benzo[k]fluoranthene	0.094		0.036	0.011	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Benzo[a]pyrene	0.17		0.036	0.0070	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Indeno[1,2,3-cd]pyrene	0.068		0.036	0.0093	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Dibenz(a,h)anthracene	0.017	J	0.036	0.0070	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
Benzo[g,h,i]perylene	0.075		0.036	0.012	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	06/21/17 19:17	06/22/17 23:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	107		46 - 133	06/21/17 19:17	06/22/17 23:16	1
Phenol-d5	92		46 - 125	06/21/17 19:17	06/22/17 23:16	1
Nitrobenzene-d5	92		41 - 120	06/21/17 19:17	06/22/17 23:16	1
2-Fluorobiphenyl	91		44 - 121	06/21/17 19:17	06/22/17 23:16	1
2,4,6-Tribromophenol	68		25 - 139	06/21/17 19:17	06/22/17 23:16	1
Terphenyl-d14	109		35 - 160	06/21/17 19:17	06/22/17 23:16	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Arsenic	7.0		0.55	0.19	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Barium	54		0.55	0.062	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Beryllium	0.59		0.22	0.051	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Boron	8.1		2.7	0.25	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Cadmium	0.46		0.11	0.020	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Calcium	48000	B	110	19	mg/Kg	☼	06/23/17 10:07	06/26/17 11:22	10
Chromium	17		0.55	0.27	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Cobalt	10		0.27	0.072	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Copper	24		0.55	0.15	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Iron	17000	B	11	5.7	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Lead	74		0.27	0.13	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Magnesium	23000	B	5.5	2.7	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Manganese	340	B	0.55	0.079	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Nickel	24		0.55	0.16	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Potassium	1800		27	9.7	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Selenium	0.86		0.55	0.32	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Silver	<0.27		0.27	0.070	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Sodium	1100		55	8.1	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Vanadium	19		0.27	0.064	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1
Zinc	86	B	1.1	0.48	mg/Kg	☼	06/23/17 10:07	06/24/17 18:56	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.33	J	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 20:56	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/17 10:30	06/21/17 20:56	1
Boron	0.11	J B	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 20:56	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B08 (0-4)

Lab Sample ID: 500-129676-3

Date Collected: 06/15/17 10:50

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 89.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0047	J	0.0050	0.0020	mg/L	-	06/21/17 10:30	06/21/17 20:56	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 20:56	1
Cobalt	0.010	J	0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 20:56	1
Iron	<0.40	*	0.40	0.20	mg/L	-	06/21/17 10:30	06/21/17 20:56	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/21/17 10:30	06/21/17 20:56	1
Manganese	1.9		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 20:56	1
Nickel	0.015	J	0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 20:56	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/21/17 10:30	06/21/17 20:56	1
Silver	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 20:56	1
Zinc	0.058	J ^	0.50	0.020	mg/L	-	06/21/17 10:30	06/21/17 20:56	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	-	06/22/17 07:36	06/23/17 01:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	06/21/17 10:30	06/23/17 14:44	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/21/17 10:30	06/23/17 14:44	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	-	06/21/17 11:45	06/22/17 10:24	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.064	B	0.018	0.0060	mg/Kg	☼	06/21/17 08:00	06/21/17 11:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.9		0.2	0.2	SU	-		06/28/17 11:54	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B06 (0-8)

Lab Sample ID: 500-129676-5

Date Collected: 06/15/17 11:35

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 93.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.014		0.014	0.0061	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Benzene	<0.0014		0.0014	0.00036	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Bromodichloromethane	<0.0014		0.0014	0.00028	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Bromoform	<0.0014		0.0014	0.00041	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Bromomethane	<0.0035		0.0035	0.0013	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
2-Butanone (MEK)	<0.0035		0.0035	0.0016	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Carbon disulfide	<0.0035		0.0035	0.00073	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Carbon tetrachloride	<0.0014		0.0014	0.00041	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Chlorobenzene	<0.0014		0.0014	0.00052	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Chloroethane	<0.0035		0.0035	0.0010	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Chloroform	<0.0014		0.0014	0.00049	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Chloromethane	<0.0035		0.0035	0.0014	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
cis-1,2-Dichloroethene	<0.0014		0.0014	0.00039	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
cis-1,3-Dichloropropene	<0.0014		0.0014	0.00042	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Dibromochloromethane	<0.0014		0.0014	0.00046	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
1,1-Dichloroethane	<0.0014		0.0014	0.00048	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
1,2-Dichloroethane	<0.0035		0.0035	0.0011	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
1,1-Dichloroethene	<0.0014		0.0014	0.00048	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
1,2-Dichloropropane	<0.0014		0.0014	0.00036	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
1,3-Dichloropropane, Total	<0.0014		0.0014	0.00049	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Ethylbenzene	<0.0014		0.0014	0.00067	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
2-Hexanone	<0.0035		0.0035	0.0011	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Methylene Chloride	<0.0035		0.0035	0.0014	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
4-Methyl-2-pentanone (MIBK)	<0.0035		0.0035	0.0010	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Methyl tert-butyl ether	<0.0014		0.0014	0.00041	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Styrene	<0.0014		0.0014	0.00042	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
1,1,2,2-Tetrachloroethane	<0.0014		0.0014	0.00045	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Tetrachloroethene	<0.0014		0.0014	0.00048	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Toluene	<0.0014		0.0014	0.00035	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
trans-1,2-Dichloroethene	<0.0014		0.0014	0.00062	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
trans-1,3-Dichloropropene	<0.0014		0.0014	0.00049	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
1,1,1-Trichloroethane	<0.0014		0.0014	0.00047	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
1,1,2-Trichloroethane	<0.0014		0.0014	0.00060	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Trichloroethene	<0.0014		0.0014	0.00047	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Vinyl acetate	<0.0035		0.0035	0.0012	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Vinyl chloride	<0.0014		0.0014	0.00062	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1
Xylenes, Total	<0.0028		0.0028	0.00045	mg/Kg	☼	06/15/17 17:16	06/19/17 17:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		75 - 131	06/15/17 17:16	06/19/17 17:28	1
Dibromofluoromethane	92		75 - 126	06/15/17 17:16	06/19/17 17:28	1
1,2-Dichloroethane-d4 (Surr)	87		70 - 134	06/15/17 17:16	06/19/17 17:28	1
Toluene-d8 (Surr)	91		75 - 124	06/15/17 17:16	06/19/17 17:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.17		0.17	0.077	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.052	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
1,3-Dichlorobenzene	<0.17		0.17	0.039	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
1,4-Dichlorobenzene	<0.17		0.17	0.044	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B06 (0-8)

Lab Sample ID: 500-129676-5

Date Collected: 06/15/17 11:35

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 93.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.17		0.17	0.041	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
2-Methylphenol	<0.17		0.17	0.055	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.040	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
N-Nitrosodi-n-propylamine	<0.070		0.070	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Hexachloroethane	<0.17		0.17	0.053	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
2-Chlorophenol	<0.17		0.17	0.059	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Nitrobenzene	<0.034		0.034	0.0086	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.035	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.037	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Isophorone	<0.17		0.17	0.039	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
2,4-Dimethylphenol	<0.34		0.34	0.13	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Hexachlorobutadiene	<0.17		0.17	0.054	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Naphthalene	0.0053	J	0.034	0.0053	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
2,4-Dichlorophenol	<0.34		0.34	0.082	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
4-Chloroaniline	<0.70		0.70	0.16	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
2,4,6-Trichlorophenol	<0.34		0.34	0.12	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
2,4,5-Trichlorophenol	<0.34		0.34	0.079	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Hexachlorocyclopentadiene	<0.70		0.70	0.20	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
2-Methylnaphthalene	<0.070		0.070	0.0064	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
2-Nitroaniline	<0.17		0.17	0.047	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
2-Chloronaphthalene	<0.17		0.17	0.038	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
4-Chloro-3-methylphenol	<0.34		0.34	0.12	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
2,6-Dinitrotoluene	<0.17		0.17	0.068	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
2-Nitrophenol	<0.34		0.34	0.082	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
3-Nitroaniline	<0.34		0.34	0.11	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Dimethyl phthalate	<0.17		0.17	0.045	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
2,4-Dinitrophenol	<0.70	*	0.70	0.61	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Acenaphthylene	<0.034		0.034	0.0046	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
2,4-Dinitrotoluene	<0.17		0.17	0.055	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Acenaphthene	<0.034		0.034	0.0062	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Dibenzofuran	<0.17		0.17	0.041	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
4-Nitrophenol	<0.70		0.70	0.33	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Fluorene	<0.034		0.034	0.0049	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
4-Nitroaniline	<0.34		0.34	0.14	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Hexachlorobenzene	<0.070		0.070	0.0080	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Diethyl phthalate	<0.17		0.17	0.059	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.040	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Pentachlorophenol	<0.70		0.70	0.55	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
N-Nitrosodiphenylamine	<0.17		0.17	0.041	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
4,6-Dinitro-2-methylphenol	<0.70		0.70	0.28	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Phenanthrene	0.053		0.034	0.0048	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Anthracene	0.011	J	0.034	0.0058	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Carbazole	<0.17		0.17	0.086	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Di-n-butyl phthalate	<0.17		0.17	0.053	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Fluoranthene	0.13		0.034	0.0064	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Pyrene	0.13		0.034	0.0069	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Butyl benzyl phthalate	<0.17		0.17	0.066	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Benzo[a]anthracene	0.071		0.034	0.0047	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B06 (0-8)

Lab Sample ID: 500-129676-5

Date Collected: 06/15/17 11:35

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 93.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.076		0.034	0.0094	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.048	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.063	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Di-n-octyl phthalate	<0.17		0.17	0.056	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Benzo[b]fluoranthene	0.11		0.034	0.0075	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Benzo[k]fluoranthene	0.046		0.034	0.010	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Benzo[a]pyrene	0.072		0.034	0.0067	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Indeno[1,2,3-cd]pyrene	<0.034		0.034	0.0090	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Dibenz(a,h)anthracene	<0.034		0.034	0.0067	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
Benzo[g,h,i]perylene	0.035		0.034	0.011	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1
3 & 4 Methylphenol	<0.17		0.17	0.058	mg/Kg	☼	06/21/17 19:17	06/22/17 22:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	107		46 - 133	06/21/17 19:17	06/22/17 22:21	1
Phenol-d5	96		46 - 125	06/21/17 19:17	06/22/17 22:21	1
Nitrobenzene-d5	89		41 - 120	06/21/17 19:17	06/22/17 22:21	1
2-Fluorobiphenyl	86		44 - 121	06/21/17 19:17	06/22/17 22:21	1
2,4,6-Tribromophenol	64		25 - 139	06/21/17 19:17	06/22/17 22:21	1
Terphenyl-d14	106		35 - 160	06/21/17 19:17	06/22/17 22:21	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.27	J	1.0	0.20	mg/Kg	☼	06/23/17 10:07	06/24/17 19:03	1
Arsenic	2.2		0.51	0.17	mg/Kg	☼	06/23/17 10:07	06/24/17 19:03	1
Barium	10		0.51	0.058	mg/Kg	☼	06/23/17 10:07	06/24/17 19:03	1
Beryllium	0.11	J	0.20	0.047	mg/Kg	☼	06/23/17 10:07	06/24/17 19:03	1
Boron	7.6		2.5	0.24	mg/Kg	☼	06/23/17 10:07	06/24/17 19:03	1
Cadmium	0.14		0.10	0.018	mg/Kg	☼	06/23/17 10:07	06/24/17 19:03	1
Calcium	190000	B	100	17	mg/Kg	☼	06/23/17 10:07	06/26/17 11:29	10
Chromium	3.6		0.51	0.25	mg/Kg	☼	06/23/17 10:07	06/24/17 19:03	1
Cobalt	2.1		0.25	0.066	mg/Kg	☼	06/23/17 10:07	06/24/17 19:03	1
Copper	12		0.51	0.14	mg/Kg	☼	06/23/17 10:07	06/24/17 19:03	1
Iron	4400	B	10	5.3	mg/Kg	☼	06/23/17 10:07	06/24/17 19:03	1
Lead	53		0.25	0.12	mg/Kg	☼	06/23/17 10:07	06/24/17 19:03	1
Magnesium	120000	B	51	25	mg/Kg	☼	06/23/17 10:07	06/26/17 11:29	10
Manganese	140	B	0.51	0.074	mg/Kg	☼	06/23/17 10:07	06/24/17 19:03	1
Nickel	5.3		0.51	0.15	mg/Kg	☼	06/23/17 10:07	06/24/17 19:03	1
Potassium	490		25	9.0	mg/Kg	☼	06/23/17 10:07	06/24/17 19:03	1
Selenium	<0.51		0.51	0.30	mg/Kg	☼	06/23/17 10:07	06/24/17 19:03	1
Silver	<0.25		0.25	0.065	mg/Kg	☼	06/23/17 10:07	06/24/17 19:03	1
Sodium	240		51	7.5	mg/Kg	☼	06/23/17 10:07	06/24/17 19:03	1
Thallium	<0.51		0.51	0.25	mg/Kg	☼	06/23/17 10:07	06/24/17 19:03	1
Vanadium	4.0		0.25	0.060	mg/Kg	☼	06/23/17 10:07	06/24/17 19:03	1
Zinc	28	B F1 F2	1.0	0.44	mg/Kg	☼	06/26/17 09:50	06/26/17 18:33	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.23	J	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 21:11	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/17 10:30	06/21/17 21:11	1
Boron	0.12	J B	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 21:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B06 (0-8)

Lab Sample ID: 500-129676-5

Date Collected: 06/15/17 11:35

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 93.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0033	J	0.0050	0.0020	mg/L	-	06/21/17 10:30	06/21/17 21:11	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:11	1
Cobalt	0.014	J	0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:11	1
Iron	0.31	J *	0.40	0.20	mg/L	-	06/21/17 10:30	06/21/17 21:11	1
Lead	0.032		0.0075	0.0075	mg/L	-	06/21/17 10:30	06/21/17 21:11	1
Manganese	1.3		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:11	1
Nickel	0.023	J	0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:11	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/21/17 10:30	06/21/17 21:11	1
Silver	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:11	1
Zinc	0.077	J ^	0.50	0.020	mg/L	-	06/21/17 10:30	06/21/17 21:11	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.12		0.0075	0.0075	mg/L	-	06/22/17 07:36	06/23/17 01:07	1
Manganese	0.057		0.025	0.010	mg/L	-	06/22/17 07:36	06/23/17 01:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	06/21/17 10:30	06/23/17 14:48	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/21/17 10:30	06/23/17 14:48	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	06/21/17 11:45	06/22/17 10:27	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025	B	0.016	0.0053	mg/Kg	☼	06/21/17 08:00	06/21/17 11:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.9		0.2	0.2	SU	-		06/28/17 12:06	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B06 (8-16)

Lab Sample ID: 500-129676-6

Date Collected: 06/15/17 11:40

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 80.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0079	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Carbon disulfide	<0.0045		0.0045	0.00094	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Chlorobenzene	<0.0018		0.0018	0.00067	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Ethylbenzene	<0.0018		0.0018	0.00087	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00078	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Vinyl acetate	<0.0045		0.0045	0.0016	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Vinyl chloride	<0.0018		0.0018	0.00080	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	06/15/17 17:16	06/19/17 17:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		75 - 131	06/15/17 17:16	06/19/17 17:54	1
Dibromofluoromethane	94		75 - 126	06/15/17 17:16	06/19/17 17:54	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 134	06/15/17 17:16	06/19/17 17:54	1
Toluene-d8 (Surr)	87		75 - 124	06/15/17 17:16	06/19/17 17:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.090	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B06 (8-16)

Lab Sample ID: 500-129676-6

Date Collected: 06/15/17 11:40

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 80.3

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	0.049	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Naphthalene	<0.040		0.040	0.0063	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
2,4-Dichlorophenol	<0.40		0.40	0.097	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
2,4,5-Trichlorophenol	<0.40		0.40	0.093	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
2-Methylnaphthalene	<0.082		0.082	0.0075	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
2,4-Dinitrophenol	<0.82	*	0.82	0.72	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Acenaphthylene	<0.040		0.040	0.0054	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
2,4-Dinitrotoluene	<0.20		0.20	0.065	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Dibenzofuran	<0.20		0.20	0.048	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.054	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.048	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Phenanthrene	0.012	J	0.040	0.0057	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Fluoranthene	0.026	J	0.040	0.0075	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Pyrene	0.028	J	0.040	0.0081	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Benzo[a]anthracene	0.018	J	0.040	0.0055	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B06 (8-16)

Lab Sample ID: 500-129676-6

Date Collected: 06/15/17 11:40

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 80.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.024	J	0.040	0.011	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Benzo[b]fluoranthene	0.023	J	0.040	0.0088	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Benzo[k]fluoranthene	0.013	J	0.040	0.012	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Benzo[a]pyrene	0.019	J	0.040	0.0079	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Indeno[1,2,3-cd]pyrene	0.015	J	0.040	0.011	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0079	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
Benzo[g,h,i]perylene	0.015	J	0.040	0.013	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	06/21/17 19:17	06/22/17 18:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	107		46 - 133	06/21/17 19:17	06/22/17 18:39	1
Phenol-d5	90		46 - 125	06/21/17 19:17	06/22/17 18:39	1
Nitrobenzene-d5	85		41 - 120	06/21/17 19:17	06/22/17 18:39	1
2-Fluorobiphenyl	80		44 - 121	06/21/17 19:17	06/22/17 18:39	1
2,4,6-Tribromophenol	64		25 - 139	06/21/17 19:17	06/22/17 18:39	1
Terphenyl-d14	109		35 - 160	06/21/17 19:17	06/22/17 18:39	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Arsenic	7.3		0.55	0.19	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Barium	31		0.55	0.062	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Beryllium	0.34		0.22	0.051	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Boron	7.6		2.7	0.26	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Cadmium	0.22		0.11	0.020	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Calcium	96000	B	110	19	mg/Kg	☼	06/23/17 10:07	06/26/17 11:36	10
Chromium	8.7		0.55	0.27	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Cobalt	7.6		0.27	0.072	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Copper	20		0.55	0.15	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Iron	13000	B	11	5.7	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Lead	38		0.27	0.13	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Magnesium	43000	B	5.5	2.7	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Manganese	310	B	0.55	0.079	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Nickel	18		0.55	0.16	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Potassium	1100		27	9.7	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Selenium	0.36	J	0.55	0.32	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Silver	<0.27		0.27	0.071	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Sodium	1000		55	8.1	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Vanadium	12		0.27	0.065	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	1
Zinc	67	B	1.1	0.48	mg/Kg	☼	06/23/17 10:07	06/24/17 19:07	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		06/21/17 10:30	06/21/17 21:19	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/17 10:30	06/21/17 21:19	1
Boron	0.11	J B	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 21:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B06 (8-16)

Lab Sample ID: 500-129676-6

Date Collected: 06/15/17 11:40

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 80.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0030	J	0.0050	0.0020	mg/L	-	06/21/17 10:30	06/21/17 21:19	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:19	1
Cobalt	0.018	J	0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:19	1
Iron	<0.40	*	0.40	0.20	mg/L	-	06/21/17 10:30	06/21/17 21:19	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/21/17 10:30	06/21/17 21:19	1
Manganese	2.8		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:19	1
Nickel	0.032		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:19	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/21/17 10:30	06/21/17 21:19	1
Silver	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:19	1
Zinc	0.034	J ^	0.50	0.020	mg/L	-	06/21/17 10:30	06/21/17 21:19	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	-	06/22/17 07:36	06/23/17 01:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	06/21/17 10:30	06/23/17 14:50	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/21/17 10:30	06/23/17 14:50	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	-	06/21/17 11:45	06/22/17 10:32	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.040	B	0.021	0.0069	mg/Kg	☼	06/21/17 08:00	06/21/17 11:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.5		0.2	0.2	SU	-		06/28/17 12:10	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B02 (0-4)

Lab Sample ID: 500-129676-7

Date Collected: 06/15/17 12:30

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 89.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.015		0.015	0.0065	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Benzene	<0.0015		0.0015	0.00038	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Bromodichloromethane	<0.0015		0.0015	0.00030	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Bromoform	<0.0015		0.0015	0.00044	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Bromomethane	<0.0037		0.0037	0.0014	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
2-Butanone (MEK)	<0.0037		0.0037	0.0017	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Carbon disulfide	<0.0037		0.0037	0.00078	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Carbon tetrachloride	<0.0015		0.0015	0.00043	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Chlorobenzene	<0.0015		0.0015	0.00055	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Chloroethane	<0.0037		0.0037	0.0011	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Chloroform	<0.0015		0.0015	0.00052	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Chloromethane	<0.0037		0.0037	0.0015	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00042	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00045	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Dibromochloromethane	<0.0015		0.0015	0.00049	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
1,1-Dichloroethane	<0.0015		0.0015	0.00051	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
1,2-Dichloroethane	<0.0037		0.0037	0.0012	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
1,1-Dichloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
1,2-Dichloropropane	<0.0015		0.0015	0.00039	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
1,3-Dichloropropene, Total	<0.0015		0.0015	0.00052	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Ethylbenzene	<0.0015		0.0015	0.00071	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
2-Hexanone	<0.0037		0.0037	0.0012	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Methylene Chloride	<0.0037		0.0037	0.0015	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
4-Methyl-2-pentanone (MIBK)	<0.0037		0.0037	0.0011	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00044	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Styrene	<0.0015		0.0015	0.00045	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00048	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Tetrachloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Toluene	<0.0015		0.0015	0.00038	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00066	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00052	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
1,1,1-Trichloroethane	<0.0015		0.0015	0.00050	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00064	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Trichloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Vinyl acetate	<0.0037		0.0037	0.0013	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Vinyl chloride	<0.0015		0.0015	0.00066	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1
Xylenes, Total	<0.0030		0.0030	0.00048	mg/Kg	☼	06/15/17 17:16	06/19/17 18:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		75 - 131	06/15/17 17:16	06/19/17 18:19	1
Dibromofluoromethane	92		75 - 126	06/15/17 17:16	06/19/17 18:19	1
1,2-Dichloroethane-d4 (Surr)	87		70 - 134	06/15/17 17:16	06/19/17 18:19	1
Toluene-d8 (Surr)	88		75 - 124	06/15/17 17:16	06/19/17 18:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.080	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B02 (0-4)

Lab Sample ID: 500-129676-7

Date Collected: 06/15/17 12:30

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 89.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Naphthalene	<0.036		0.036	0.0055	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
2-Methylnaphthalene	<0.073		0.073	0.0066	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
2,4-Dinitrophenol	<0.73	*	0.73	0.64	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Acenaphthene	<0.036		0.036	0.0065	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Phenanthrene	0.016	J	0.036	0.0050	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Anthracene	<0.036		0.036	0.0060	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Carbazole	<0.18		0.18	0.090	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Fluoranthene	0.017	J	0.036	0.0067	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Pyrene	0.021	J	0.036	0.0072	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Benzo[a]anthracene	0.011	J	0.036	0.0049	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B02 (0-4)

Lab Sample ID: 500-129676-7

Date Collected: 06/15/17 12:30

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 89.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.024	J	0.036	0.0098	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Benzo[b]fluoranthene	0.014	J	0.036	0.0078	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Benzo[a]pyrene	0.012	J	0.036	0.0070	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0093	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0070	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
Benzo[g,h,i]perylene	0.018	J	0.036	0.012	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	06/21/17 19:17	06/22/17 19:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	98		46 - 133	06/21/17 19:17	06/22/17 19:07	1
Phenol-d5	89		46 - 125	06/21/17 19:17	06/22/17 19:07	1
Nitrobenzene-d5	85		41 - 120	06/21/17 19:17	06/22/17 19:07	1
2-Fluorobiphenyl	81		44 - 121	06/21/17 19:17	06/22/17 19:07	1
2,4,6-Tribromophenol	68		25 - 139	06/21/17 19:17	06/22/17 19:07	1
Terphenyl-d14	107		35 - 160	06/21/17 19:17	06/22/17 19:07	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Arsenic	7.0		0.53	0.18	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Barium	20		0.53	0.060	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Beryllium	0.34		0.21	0.049	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Boron	9.8		2.6	0.25	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Cadmium	0.14		0.11	0.019	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Calcium	120000	B	110	18	mg/Kg	☼	06/23/17 10:07	06/26/17 11:40	10
Chromium	8.7		0.53	0.26	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Cobalt	8.1		0.26	0.069	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Copper	18		0.53	0.15	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Iron	13000	B	11	5.5	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Lead	15		0.26	0.12	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Magnesium	46000	B	5.3	2.6	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Manganese	290	B	0.53	0.077	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Nickel	20		0.53	0.15	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Potassium	1500		26	9.4	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Selenium	0.36	J	0.53	0.31	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Silver	<0.26		0.26	0.068	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Sodium	160		53	7.8	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Thallium	<0.53		0.53	0.26	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Vanadium	12		0.26	0.062	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	1
Zinc	44	B	1.1	0.46	mg/Kg	☼	06/23/17 10:07	06/24/17 19:11	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		06/21/17 10:30	06/21/17 21:25	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/17 10:30	06/21/17 21:25	1
Boron	0.11	J B	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 21:25	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B02 (0-4)

Lab Sample ID: 500-129676-7

Date Collected: 06/15/17 12:30

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 89.6

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	-	06/21/17 10:30	06/21/17 21:25	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:25	1
Cobalt	0.023	J	0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:25	1
Iron	<0.40	*	0.40	0.20	mg/L	-	06/21/17 10:30	06/21/17 21:25	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/21/17 10:30	06/21/17 21:25	1
Manganese	2.6		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:25	1
Nickel	0.036		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:25	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/21/17 10:30	06/21/17 21:25	1
Silver	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:25	1
Zinc	0.025	J ^	0.50	0.020	mg/L	-	06/21/17 10:30	06/21/17 21:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L	-	06/22/17 07:36	06/23/17 01:15	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	-	06/21/17 10:30	06/23/17 14:52	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/21/17 10:30	06/23/17 14:52	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	06/21/17 11:45	06/22/17 10:33	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.030	B	0.019	0.0062	mg/Kg	☼	06/21/17 08:00	06/21/17 11:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.2	0.2	SU	-		06/28/17 12:14	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B04 (0-1)

Lab Sample ID: 500-129676-8

Date Collected: 06/15/17 12:45

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 91.3

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	☼	06/15/17 17:16	06/19/17 18:45	1
Benzene	<0.0020		0.0020	0.00050	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Bromoform	<0.0020		0.0020	0.00057	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Bromomethane	<0.0049		0.0049	0.0019	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
2-Butanone (MEK)	<0.0049		0.0049	0.0022	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Carbon tetrachloride	<0.0020		0.0020	0.00057	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Chlorobenzene	<0.0020		0.0020	0.00073	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Chloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Chloroform	<0.0020		0.0020	0.00068	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00059	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Dibromochloromethane	<0.0020		0.0020	0.00064	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
1,1-Dichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
1,1-Dichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00069	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Ethylbenzene	<0.0020		0.0020	0.00094	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0015	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00058	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Styrene	<0.0020		0.0020	0.00059	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Tetrachloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Toluene	<0.0020		0.0020	0.00050	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00087	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00069	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00066	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00084	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Trichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Vinyl acetate	<0.0049		0.0049	0.0017	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Vinyl chloride	<0.0020		0.0020	0.00087	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1
Xylenes, Total	<0.0039		0.0039	0.00063	mg/Kg	☼	06/15/17 17:16	06/19/17 18:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	06/15/17 17:16	06/19/17 18:45	1
Dibromofluoromethane	95		75 - 126	06/15/17 17:16	06/19/17 18:45	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 134	06/15/17 17:16	06/19/17 18:45	1
Toluene-d8 (Surr)	90		75 - 124	06/15/17 17:16	06/19/17 18:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.081	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B04 (0-1)

Lab Sample ID: 500-129676-8

Date Collected: 06/15/17 12:45

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 91.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Naphthalene	0.0079	J	0.036	0.0056	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
2,4,5-Trichlorophenol	<0.36		0.36	0.083	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
2-Methylnaphthalene	<0.073		0.073	0.0067	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
2-Nitrophenol	<0.36		0.36	0.086	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
2,4-Dinitrophenol	<0.73	*	0.73	0.64	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Acenaphthylene	0.014	J	0.036	0.0048	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Acenaphthene	0.010	J	0.036	0.0065	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
4-Nitrophenol	<0.73		0.73	0.35	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Fluorene	0.0095	J	0.036	0.0051	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Phenanthrene	0.27		0.036	0.0051	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Anthracene	0.044		0.036	0.0061	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Carbazole	<0.18		0.18	0.091	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Fluoranthene	0.80		0.036	0.0067	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Pyrene	0.79		0.036	0.0072	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Butyl benzyl phthalate	0.22		0.18	0.069	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Benzo[a]anthracene	0.33		0.036	0.0049	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B04 (0-1)

Lab Sample ID: 500-129676-8

Date Collected: 06/15/17 12:45

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 91.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.49		0.036	0.0099	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Bis(2-ethylhexyl) phthalate	0.089	J	0.18	0.066	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Benzo[b]fluoranthene	0.77		0.036	0.0078	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Benzo[k]fluoranthene	0.34		0.036	0.011	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Benzo[a]pyrene	0.43		0.036	0.0070	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Indeno[1,2,3-cd]pyrene	0.18		0.036	0.0094	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Dibenz(a,h)anthracene	0.039		0.036	0.0070	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
Benzo[g,h,i]perylene	0.19		0.036	0.012	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	06/21/17 19:17	06/23/17 00:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	105		46 - 133	06/21/17 19:17	06/23/17 00:11	1
Phenol-d5	93		46 - 125	06/21/17 19:17	06/23/17 00:11	1
Nitrobenzene-d5	86		41 - 120	06/21/17 19:17	06/23/17 00:11	1
2-Fluorobiphenyl	85		44 - 121	06/21/17 19:17	06/23/17 00:11	1
2,4,6-Tribromophenol	74		25 - 139	06/21/17 19:17	06/23/17 00:11	1
Terphenyl-d14	115		35 - 160	06/21/17 19:17	06/23/17 00:11	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.30	J	1.1	0.21	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Arsenic	5.2		0.54	0.19	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Barium	37		0.54	0.062	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Beryllium	0.33		0.22	0.051	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Boron	6.0		2.7	0.25	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Cadmium	0.39		0.11	0.020	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Calcium	42000	B	110	18	mg/Kg	☼	06/23/17 10:07	06/26/17 11:44	10
Chromium	13		0.54	0.27	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Cobalt	6.0		0.27	0.071	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Copper	21		0.54	0.15	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Iron	11000	B	11	5.6	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Lead	63		0.27	0.13	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Magnesium	21000	B	5.4	2.7	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Manganese	220	B	0.54	0.079	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Nickel	15		0.54	0.16	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Potassium	1200		27	9.6	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Selenium	0.70		0.54	0.32	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Silver	<0.27		0.27	0.070	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Sodium	170		54	8.0	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Vanadium	13		0.27	0.064	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	1
Zinc	120	B	1.1	0.48	mg/Kg	☼	06/23/17 10:07	06/24/17 19:15	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		06/21/17 10:30	06/21/17 21:31	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/17 10:30	06/21/17 21:31	1
Boron	0.11	J B	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 21:31	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B04 (0-1)

Lab Sample ID: 500-129676-8

Date Collected: 06/15/17 12:45

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 91.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0031	J	0.0050	0.0020	mg/L	-	06/21/17 10:30	06/21/17 21:31	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:31	1
Cobalt	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:31	1
Iron	<0.40	*	0.40	0.20	mg/L	-	06/21/17 10:30	06/21/17 21:31	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/21/17 10:30	06/21/17 21:31	1
Manganese	1.2		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:31	1
Nickel	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:31	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/21/17 10:30	06/21/17 21:31	1
Silver	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:31	1
Zinc	0.16	J ^	0.50	0.020	mg/L	-	06/21/17 10:30	06/21/17 21:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.13		0.025	0.010	mg/L	-	06/22/17 07:36	06/23/17 01:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	06/21/17 10:30	06/23/17 14:54	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/21/17 10:30	06/23/17 14:54	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	-	06/21/17 11:45	06/22/17 10:35	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.045	B	0.017	0.0057	mg/Kg	☼	06/21/17 08:00	06/21/17 11:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.2	0.2	SU	-		06/28/17 12:18	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B05 (0-2)

Lab Sample ID: 500-129676-9

Date Collected: 06/15/17 12:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 91.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0071	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Carbon disulfide	<0.0041		0.0041	0.00084	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Chloromethane	<0.0041		0.0041	0.0016	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Vinyl chloride	<0.0016		0.0016	0.00072	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1
Xylenes, Total	<0.0032		0.0032	0.00052	mg/Kg	☼	06/15/17 17:16	06/19/17 19:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		75 - 131	06/15/17 17:16	06/19/17 19:10	1
Dibromofluoromethane	95		75 - 126	06/15/17 17:16	06/19/17 19:10	1
1,2-Dichloroethane-d4 (Surr)	89		70 - 134	06/15/17 17:16	06/19/17 19:10	1
Toluene-d8 (Surr)	90		75 - 124	06/15/17 17:16	06/19/17 19:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.078	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B05 (0-2)

Lab Sample ID: 500-129676-9

Date Collected: 06/15/17 12:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 91.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
2-Methylphenol	<0.18		0.18	0.056	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
N-Nitrosodi-n-propylamine	<0.071		0.071	0.043	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Hexachloroethane	<0.18		0.18	0.053	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Isophorone	<0.18		0.18	0.039	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
2,4-Dichlorophenol	<0.35		0.35	0.083	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
4-Chloroaniline	<0.71		0.71	0.16	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
2,4,5-Trichlorophenol	<0.35		0.35	0.080	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
2-Methylnaphthalene	<0.071		0.071	0.0065	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
2,4-Dinitrophenol	<0.71	*	0.71	0.62	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Acenaphthylene	0.0050	J	0.035	0.0046	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Acenaphthene	0.0073	J	0.035	0.0063	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
4-Nitrophenol	<0.71		0.71	0.33	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Fluorene	0.0064	J	0.035	0.0049	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Hexachlorobenzene	<0.071		0.071	0.0081	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Diethyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Pentachlorophenol	<0.71		0.71	0.56	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
N-Nitrosodiphenylamine	<0.18		0.18	0.041	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Phenanthrene	0.15		0.035	0.0049	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Anthracene	0.027	J	0.035	0.0059	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Carbazole	<0.18		0.18	0.088	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Di-n-butyl phthalate	<0.18		0.18	0.053	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Fluoranthene	0.38		0.035	0.0065	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Pyrene	0.35		0.035	0.0070	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Benzo[a]anthracene	0.17		0.035	0.0047	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B05 (0-2)

Lab Sample ID: 500-129676-9

Date Collected: 06/15/17 12:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 91.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.23		0.035	0.0096	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.064	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Di-n-octyl phthalate	<0.18		0.18	0.057	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Benzo[b]fluoranthene	0.32		0.035	0.0076	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Benzo[k]fluoranthene	0.14		0.035	0.010	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Benzo[a]pyrene	0.20		0.035	0.0068	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Indeno[1,2,3-cd]pyrene	0.11		0.035	0.0091	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Dibenz(a,h)anthracene	0.023	J	0.035	0.0068	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
Benzo[g,h,i]perylene	0.12		0.035	0.011	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	06/21/17 19:17	06/22/17 20:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	102		46 - 133	06/21/17 19:17	06/22/17 20:58	1
Phenol-d5	91		46 - 125	06/21/17 19:17	06/22/17 20:58	1
Nitrobenzene-d5	87		41 - 120	06/21/17 19:17	06/22/17 20:58	1
2-Fluorobiphenyl	80		44 - 121	06/21/17 19:17	06/22/17 20:58	1
2,4,6-Tribromophenol	67		25 - 139	06/21/17 19:17	06/22/17 20:58	1
Terphenyl-d14	98		35 - 160	06/21/17 19:17	06/22/17 20:58	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.22	J	1.1	0.21	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Arsenic	5.8		0.54	0.18	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Barium	31		0.54	0.061	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Beryllium	0.33		0.21	0.050	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Boron	9.9		2.7	0.25	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Cadmium	0.29		0.11	0.019	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Calcium	90000	B	110	18	mg/Kg	☼	06/23/17 10:07	06/26/17 11:55	10
Chromium	10		0.54	0.27	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Cobalt	6.7		0.27	0.070	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Copper	20		0.54	0.15	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Iron	11000	B	11	5.6	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Lead	74		0.27	0.12	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Magnesium	43000	B	5.4	2.7	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Manganese	270	B	0.54	0.078	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Nickel	16		0.54	0.16	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Potassium	1200		27	9.5	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Selenium	0.71		0.54	0.32	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Silver	<0.27		0.27	0.069	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Sodium	120		54	7.9	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Vanadium	11		0.27	0.063	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1
Zinc	110	B	1.1	0.47	mg/Kg	☼	06/23/17 10:07	06/24/17 19:19	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.30	J	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 21:36	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/17 10:30	06/21/17 21:36	1
Boron	0.12	J B	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 21:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B05 (0-2)

Lab Sample ID: 500-129676-9

Date Collected: 06/15/17 12:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 91.6

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	-	06/21/17 10:30	06/21/17 21:36	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:36	1
Cobalt	0.012	J	0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:36	1
Iron	<0.40	*	0.40	0.20	mg/L	-	06/21/17 10:30	06/21/17 21:36	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/21/17 10:30	06/21/17 21:36	1
Manganese	1.6		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:36	1
Nickel	0.015	J	0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:36	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/21/17 10:30	06/21/17 21:36	1
Silver	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:36	1
Zinc	0.18	J ^	0.50	0.020	mg/L	-	06/21/17 10:30	06/21/17 21:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.12		0.025	0.010	mg/L	-	06/22/17 07:36	06/23/17 01:22	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	-	06/21/17 10:30	06/23/17 15:01	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/21/17 10:30	06/23/17 15:01	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	-	06/21/17 11:45	06/22/17 10:36	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.040	B	0.017	0.0056	mg/Kg	☼	06/21/17 08:00	06/21/17 11:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.2		0.2	0.2	SU	-		06/28/17 12:22	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B03 (0-2)

Lab Sample ID: 500-129676-10

Date Collected: 06/15/17 13:08

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 92.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0073	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Carbon disulfide	<0.0042		0.0042	0.00087	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Ethylbenzene	<0.0017		0.0017	0.00080	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00072	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	06/15/17 17:16	06/19/17 19:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		75 - 131	06/15/17 17:16	06/19/17 19:35	1
Dibromofluoromethane	93		75 - 126	06/15/17 17:16	06/19/17 19:35	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 134	06/15/17 17:16	06/19/17 19:35	1
Toluene-d8 (Surr)	89		75 - 124	06/15/17 17:16	06/19/17 19:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.078	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B03 (0-2)

Lab Sample ID: 500-129676-10

Date Collected: 06/15/17 13:08

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 92.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
2-Methylphenol	<0.18		0.18	0.056	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
N-Nitrosodi-n-propylamine	<0.071		0.071	0.043	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
2,4-Dichlorophenol	<0.35		0.35	0.084	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
4-Chloroaniline	<0.71		0.71	0.17	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
2,4,5-Trichlorophenol	<0.35		0.35	0.080	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
2-Methylnaphthalene	<0.071		0.071	0.0065	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
2,4-Dinitrophenol	<0.71	*	0.71	0.62	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Acenaphthylene	0.0074	J	0.035	0.0046	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Acenaphthene	<0.035		0.035	0.0063	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
4-Nitrophenol	<0.71		0.71	0.33	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Fluorene	0.0079	J	0.035	0.0050	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Hexachlorobenzene	<0.071		0.071	0.0082	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Pentachlorophenol	<0.71		0.71	0.56	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Phenanthrene	0.12		0.035	0.0049	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Anthracene	0.025	J	0.035	0.0059	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Carbazole	<0.18		0.18	0.088	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Fluoranthene	0.29		0.035	0.0065	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Pyrene	0.28		0.035	0.0070	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Benzo[a]anthracene	0.15		0.035	0.0047	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B03 (0-2)

Lab Sample ID: 500-129676-10

Date Collected: 06/15/17 13:08

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 92.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.18		0.035	0.0096	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.064	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Di-n-octyl phthalate	<0.18		0.18	0.057	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Benzo[b]fluoranthene	0.27		0.035	0.0076	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Benzo[k]fluoranthene	0.13		0.035	0.010	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Benzo[a]pyrene	0.16		0.035	0.0068	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Indeno[1,2,3-cd]pyrene	0.089		0.035	0.0091	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0068	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
Benzo[g,h,i]perylene	0.096		0.035	0.011	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	06/21/17 19:17	06/22/17 21:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	104		46 - 133	06/21/17 19:17	06/22/17 21:26	1
Phenol-d5	94		46 - 125	06/21/17 19:17	06/22/17 21:26	1
Nitrobenzene-d5	86		41 - 120	06/21/17 19:17	06/22/17 21:26	1
2-Fluorobiphenyl	84		44 - 121	06/21/17 19:17	06/22/17 21:26	1
2,4,6-Tribromophenol	75		25 - 139	06/21/17 19:17	06/22/17 21:26	1
Terphenyl-d14	105		35 - 160	06/21/17 19:17	06/22/17 21:26	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Arsenic	5.8		0.53	0.18	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Barium	39		0.53	0.061	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Beryllium	0.40		0.21	0.050	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Boron	6.0		2.7	0.25	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Cadmium	0.84		0.11	0.019	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Calcium	59000	B	110	18	mg/Kg	☼	06/23/17 10:07	06/26/17 11:59	10
Chromium	16		0.53	0.26	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Cobalt	7.5		0.27	0.070	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Copper	22		0.53	0.15	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Iron	13000	B	11	5.5	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Lead	47		0.27	0.12	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Magnesium	25000	B	5.3	2.6	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Manganese	230	B	0.53	0.077	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Nickel	19		0.53	0.15	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Potassium	1100		27	9.4	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Selenium	0.79		0.53	0.31	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Silver	0.11	J	0.27	0.068	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Sodium	160		53	7.9	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Thallium	<0.53		0.53	0.26	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Vanadium	14		0.27	0.063	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1
Zinc	100	B	1.1	0.47	mg/Kg	☼	06/23/17 10:07	06/24/17 19:23	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.30	J	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 21:41	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/17 10:30	06/21/17 21:41	1
Boron	0.11	J B	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 21:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B03 (0-2)

Lab Sample ID: 500-129676-10

Date Collected: 06/15/17 13:08

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 92.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0075		0.0050	0.0020	mg/L		06/21/17 10:30	06/21/17 21:41	1
Chromium	<0.025		0.025	0.010	mg/L		06/21/17 10:30	06/21/17 21:41	1
Cobalt	<0.025		0.025	0.010	mg/L		06/21/17 10:30	06/21/17 21:41	1
Iron	<0.40	*	0.40	0.20	mg/L		06/21/17 10:30	06/21/17 21:41	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/21/17 10:30	06/21/17 21:41	1
Manganese	1.4		0.025	0.010	mg/L		06/21/17 10:30	06/21/17 21:41	1
Nickel	0.013	J	0.025	0.010	mg/L		06/21/17 10:30	06/21/17 21:41	1
Selenium	<0.050		0.050	0.020	mg/L		06/21/17 10:30	06/21/17 21:41	1
Silver	<0.025		0.025	0.010	mg/L		06/21/17 10:30	06/21/17 21:41	1
Zinc	0.14	J ^	0.50	0.020	mg/L		06/21/17 10:30	06/21/17 21:41	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0023	J	0.0050	0.0020	mg/L		06/22/17 07:36	06/23/17 01:26	1
Manganese	0.12		0.025	0.010	mg/L		06/22/17 07:36	06/23/17 01:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		06/21/17 10:30	06/23/17 15:03	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/21/17 10:30	06/23/17 15:03	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		06/21/17 11:45	06/22/17 10:38	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.066	B	0.018	0.0059	mg/Kg	☼	06/21/17 08:00	06/21/17 11:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.4		0.2	0.2	SU			06/28/17 12:26	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B01 (0-8)

Lab Sample ID: 500-129676-11

Date Collected: 06/15/17 13:50

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0069	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Carbon disulfide	<0.0040		0.0040	0.00083	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Chloroform	<0.0016		0.0016	0.00055	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Dibromochloromethane	<0.0016		0.0016	0.00052	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
1,2-Dichloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00056	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Ethylbenzene	<0.0016		0.0016	0.00076	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
2-Hexanone	<0.0040		0.0040	0.0012	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Styrene	<0.0016		0.0016	0.00048	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Tetrachloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00071	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00056	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00068	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Vinyl acetate	<0.0040		0.0040	0.0014	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Vinyl chloride	<0.0016		0.0016	0.00070	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1
Xylenes, Total	<0.0032		0.0032	0.00051	mg/Kg	☼	06/15/17 17:16	06/19/17 20:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		75 - 131	06/15/17 17:16	06/19/17 20:00	1
Dibromofluoromethane	95		75 - 126	06/15/17 17:16	06/19/17 20:00	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 134	06/15/17 17:16	06/19/17 20:00	1
Toluene-d8 (Surr)	90		75 - 124	06/15/17 17:16	06/19/17 20:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.079	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B01 (0-8)

Lab Sample ID: 500-129676-11

Date Collected: 06/15/17 13:50

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
N-Nitrosodi-n-propylamine	<0.072		0.072	0.043	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Nitrobenzene	<0.035		0.035	0.0089	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Naphthalene	0.0072	J	0.035	0.0055	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
2,4-Dichlorophenol	<0.35		0.35	0.084	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
4-Chloroaniline	<0.72		0.72	0.17	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
2,4,5-Trichlorophenol	<0.35		0.35	0.081	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Hexachlorocyclopentadiene	<0.72		0.72	0.20	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
2-Methylnaphthalene	<0.072		0.072	0.0065	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
2-Nitrophenol	<0.35		0.35	0.084	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
2,4-Dinitrophenol	<0.72	*	0.72	0.63	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Acenaphthylene	<0.035		0.035	0.0047	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Acenaphthene	<0.035		0.035	0.0064	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
4-Nitrophenol	<0.72		0.72	0.34	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Fluorene	<0.035		0.035	0.0050	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Hexachlorobenzene	<0.072		0.072	0.0082	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Pentachlorophenol	<0.72		0.72	0.57	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
N-Nitrosodiphenylamine	0.044	J	0.18	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
4,6-Dinitro-2-methylphenol	<0.72		0.72	0.29	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Phenanthrene	0.037		0.035	0.0050	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Anthracene	0.0069	J	0.035	0.0059	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Carbazole	<0.18		0.18	0.089	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Fluoranthene	0.080		0.035	0.0066	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Pyrene	0.083		0.035	0.0071	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Butyl benzyl phthalate	<0.18		0.18	0.068	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Benzo[a]anthracene	0.043		0.035	0.0048	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B01 (0-8)

Lab Sample ID: 500-129676-11

Date Collected: 06/15/17 13:50

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.064		0.035	0.0097	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Benzo[b]fluoranthene	0.081		0.035	0.0077	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Benzo[k]fluoranthene	0.031 J		0.035	0.010	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Benzo[a]pyrene	0.049		0.035	0.0069	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Indeno[1,2,3-cd]pyrene	0.025 J		0.035	0.0092	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0069	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
Benzo[g,h,i]perylene	0.031 J		0.035	0.011	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	06/21/17 19:17	06/22/17 21:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	105		46 - 133	06/21/17 19:17	06/22/17 21:53	1
Phenol-d5	95		46 - 125	06/21/17 19:17	06/22/17 21:53	1
Nitrobenzene-d5	85		41 - 120	06/21/17 19:17	06/22/17 21:53	1
2-Fluorobiphenyl	82		44 - 121	06/21/17 19:17	06/22/17 21:53	1
2,4,6-Tribromophenol	72		25 - 139	06/21/17 19:17	06/22/17 21:53	1
Terphenyl-d14	107		35 - 160	06/21/17 19:17	06/22/17 21:53	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Arsenic	7.4		0.55	0.19	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Barium	24		0.55	0.063	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Beryllium	0.29		0.22	0.052	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Boron	7.0		2.8	0.26	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Cadmium	0.19		0.11	0.020	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Calcium	100000 B		110	19	mg/Kg	☼	06/23/17 10:07	06/26/17 12:02	10
Chromium	7.6		0.55	0.27	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Cobalt	8.1		0.28	0.072	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Copper	21		0.55	0.15	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Iron	13000 B		11	5.8	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Lead	26		0.28	0.13	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Magnesium	36000 B		5.5	2.7	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Manganese	330 B		0.55	0.080	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Nickel	18		0.55	0.16	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Potassium	1000		28	9.8	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Selenium	0.54 J		0.55	0.33	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Silver	<0.28		0.28	0.071	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Sodium	250		55	8.2	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Thallium	<0.55		0.55	0.28	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Vanadium	10		0.28	0.065	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	1
Zinc	61 B		1.1	0.49	mg/Kg	☼	06/23/17 10:07	06/24/17 19:34	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		06/21/17 10:30	06/21/17 21:46	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/17 10:30	06/21/17 21:46	1
Boron	0.11 J B		0.50	0.050	mg/L		06/21/17 10:30	06/21/17 21:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B01 (0-8)

Lab Sample ID: 500-129676-11

Date Collected: 06/15/17 13:50

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0034	J	0.0050	0.0020	mg/L	-	06/21/17 10:30	06/21/17 21:46	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:46	1
Cobalt	0.024	J	0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:46	1
Iron	<0.40	*	0.40	0.20	mg/L	-	06/21/17 10:30	06/21/17 21:46	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/21/17 10:30	06/21/17 21:46	1
Manganese	2.9		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:46	1
Nickel	0.035		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:46	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/21/17 10:30	06/21/17 21:46	1
Silver	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:46	1
Zinc	0.049	J ^	0.50	0.020	mg/L	-	06/21/17 10:30	06/21/17 21:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L	-	06/22/17 07:36	06/23/17 01:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	06/21/17 10:30	06/23/17 15:05	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/21/17 10:30	06/23/17 15:05	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	06/21/17 11:45	06/22/17 10:39	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.036	B	0.018	0.0061	mg/Kg	☼	06/21/17 08:00	06/21/17 11:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.2	0.2	SU	-		06/28/17 12:55	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B01 (8-16)

Lab Sample ID: 500-129676-12

Date Collected: 06/15/17 13:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0077	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Carbon disulfide	<0.0044		0.0044	0.00092	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Methylene Chloride	<0.0044		0.0044	0.0018	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	06/15/17 17:16	06/19/17 20:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		75 - 131	06/15/17 17:16	06/19/17 20:26	1
Dibromofluoromethane	95		75 - 126	06/15/17 17:16	06/19/17 20:26	1
1,2-Dichloroethane-d4 (Surr)	89		70 - 134	06/15/17 17:16	06/19/17 20:26	1
Toluene-d8 (Surr)	90		75 - 124	06/15/17 17:16	06/19/17 20:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B01 (8-16)

Lab Sample ID: 500-129676-12

Date Collected: 06/15/17 13:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
2-Methylnaphthalene	<0.076		0.076	0.0070	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
2,4-Dinitrophenol	<0.76	*	0.76	0.67	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Phenanthrene	0.017	J	0.038	0.0053	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Anthracene	<0.038		0.038	0.0063	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Fluoranthene	0.014	J	0.038	0.0070	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Pyrene	0.022	J	0.038	0.0075	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Benzo[a]anthracene	0.0080	J	0.038	0.0051	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B01 (8-16)

Lab Sample ID: 500-129676-12

Date Collected: 06/15/17 13:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.022	J	0.038	0.010	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Benzo[b]fluoranthene	<0.038		0.038	0.0082	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Benzo[a]pyrene	<0.038		0.038	0.0073	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0098	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/21/17 19:17	06/22/17 19:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	96		46 - 133	06/21/17 19:17	06/22/17 19:35	1
Phenol-d5	89		46 - 125	06/21/17 19:17	06/22/17 19:35	1
Nitrobenzene-d5	78		41 - 120	06/21/17 19:17	06/22/17 19:35	1
2-Fluorobiphenyl	77		44 - 121	06/21/17 19:17	06/22/17 19:35	1
2,4,6-Tribromophenol	74		25 - 139	06/21/17 19:17	06/22/17 19:35	1
Terphenyl-d14	106		35 - 160	06/21/17 19:17	06/22/17 19:35	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Arsenic	9.8		0.54	0.18	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Barium	24		0.54	0.061	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Beryllium	0.31		0.21	0.050	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Boron	7.7		2.7	0.25	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Cadmium	0.21		0.11	0.019	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Calcium	110000	B	110	18	mg/Kg	☼	06/23/17 10:07	06/26/17 12:06	10
Chromium	8.0		0.54	0.27	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Cobalt	10		0.27	0.070	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Copper	23		0.54	0.15	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Iron	16000	B	11	5.6	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Lead	20		0.27	0.12	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Magnesium	37000	B	5.4	2.7	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Manganese	400	B	0.54	0.078	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Nickel	22		0.54	0.16	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Potassium	1200		27	9.5	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Selenium	0.89		0.54	0.32	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Silver	<0.27		0.27	0.069	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Sodium	200		54	7.9	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Vanadium	11		0.27	0.063	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	1
Zinc	62	B	1.1	0.47	mg/Kg	☼	06/23/17 10:07	06/24/17 19:38	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		06/21/17 10:30	06/21/17 21:52	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/17 10:30	06/21/17 21:52	1
Boron	0.10	J B	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 21:52	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B01 (8-16)

Lab Sample ID: 500-129676-12

Date Collected: 06/15/17 13:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0033	J	0.0050	0.0020	mg/L	-	06/21/17 10:30	06/21/17 21:52	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:52	1
Cobalt	0.048		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:52	1
Iron	<0.40	*	0.40	0.20	mg/L	-	06/21/17 10:30	06/21/17 21:52	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/21/17 10:30	06/21/17 21:52	1
Manganese	6.8		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:52	1
Nickel	0.056		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:52	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/21/17 10:30	06/21/17 21:52	1
Silver	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:52	1
Zinc	0.069	J ^	0.50	0.020	mg/L	-	06/21/17 10:30	06/21/17 21:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.12		0.025	0.010	mg/L	-	06/22/17 07:36	06/23/17 01:41	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	-	06/21/17 10:30	06/23/17 15:07	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/21/17 10:30	06/23/17 15:07	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	-	06/21/17 11:45	06/22/17 10:40	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.040	B	0.019	0.0062	mg/Kg	☼	06/21/17 08:00	06/21/17 11:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.2	0.2	SU	-		06/28/17 13:03	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B01 (8-16)D

Lab Sample ID: 500-129676-13

Date Collected: 06/15/17 13:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 84.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0069	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Carbon disulfide	<0.0040		0.0040	0.00083	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Chloroform	<0.0016		0.0016	0.00055	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Dibromochloromethane	<0.0016		0.0016	0.00052	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
1,2-Dichloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00056	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Ethylbenzene	<0.0016		0.0016	0.00076	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
2-Hexanone	<0.0040		0.0040	0.0012	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Styrene	<0.0016		0.0016	0.00048	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Tetrachloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00070	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00056	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00068	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Vinyl acetate	<0.0040		0.0040	0.0014	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Vinyl chloride	<0.0016		0.0016	0.00070	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1
Xylenes, Total	<0.0032		0.0032	0.00051	mg/Kg	☼	06/15/17 17:16	06/19/17 20:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		75 - 131	06/15/17 17:16	06/19/17 20:51	1
Dibromofluoromethane	91		75 - 126	06/15/17 17:16	06/19/17 20:51	1
1,2-Dichloroethane-d4 (Surr)	82		70 - 134	06/15/17 17:16	06/19/17 20:51	1
Toluene-d8 (Surr)	94		75 - 124	06/15/17 17:16	06/19/17 20:51	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	☼	06/21/17 19:17	06/22/17 20:03	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B01 (8-16)D

Lab Sample ID: 500-129676-13

Date Collected: 06/15/17 13:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 84.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
2-Methylnaphthalene	0.0075	J	0.079	0.0072	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
2,4-Dinitrophenol	<0.79	*	0.79	0.69	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Phenanthrene	0.023	J	0.039	0.0055	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Fluoranthene	0.018	J	0.039	0.0073	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Pyrene	0.031	J	0.039	0.0078	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Benzo[a]anthracene	0.012	J	0.039	0.0053	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B01 (8-16)D

Lab Sample ID: 500-129676-13

Date Collected: 06/15/17 13:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 84.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.025	J	0.039	0.011	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Benzo[b]fluoranthene	0.023	J	0.039	0.0084	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Benzo[a]pyrene	0.011	J	0.039	0.0076	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
Benzo[g,h,i]perylene	0.014	J	0.039	0.013	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	06/21/17 19:17	06/22/17 20:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	108		46 - 133	06/21/17 19:17	06/22/17 20:03	1
Phenol-d5	95		46 - 125	06/21/17 19:17	06/22/17 20:03	1
Nitrobenzene-d5	86		41 - 120	06/21/17 19:17	06/22/17 20:03	1
2-Fluorobiphenyl	83		44 - 121	06/21/17 19:17	06/22/17 20:03	1
2,4,6-Tribromophenol	72		25 - 139	06/21/17 19:17	06/22/17 20:03	1
Terphenyl-d14	107		35 - 160	06/21/17 19:17	06/22/17 20:03	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.20	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Arsenic	8.7		0.52	0.18	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Barium	24		0.52	0.059	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Beryllium	0.29		0.21	0.048	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Boron	7.5		2.6	0.24	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Cadmium	0.22		0.10	0.019	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Calcium	130000	B	100	17	mg/Kg	☼	06/23/17 10:07	06/26/17 12:10	10
Chromium	7.4		0.52	0.26	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Cobalt	8.8		0.26	0.068	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Copper	21		0.52	0.14	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Iron	14000	B	10	5.4	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Lead	27		0.26	0.12	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Magnesium	38000	B	5.2	2.6	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Manganese	380	B	0.52	0.075	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Nickel	19		0.52	0.15	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Potassium	1100		26	9.1	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Selenium	0.48	J	0.52	0.30	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Silver	<0.26		0.26	0.067	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Sodium	200		52	7.6	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Thallium	<0.52		0.52	0.26	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Vanadium	10		0.26	0.061	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1
Zinc	63	B	1.0	0.45	mg/Kg	☼	06/23/17 10:07	06/24/17 19:42	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.23	J	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 21:58	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/17 10:30	06/21/17 21:58	1
Boron	0.12	J B	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 21:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

Client Sample ID: 2274V-03-B01 (8-16)D

Lab Sample ID: 500-129676-13

Date Collected: 06/15/17 13:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 84.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0034	J	0.0050	0.0020	mg/L	-	06/21/17 10:30	06/21/17 21:58	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:58	1
Cobalt	0.044		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:58	1
Iron	<0.40	*	0.40	0.20	mg/L	-	06/21/17 10:30	06/21/17 21:58	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/21/17 10:30	06/21/17 21:58	1
Manganese	6.8		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:58	1
Nickel	0.048		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:58	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/21/17 10:30	06/21/17 21:58	1
Silver	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 21:58	1
Zinc	0.067	J ^	0.50	0.020	mg/L	-	06/21/17 10:30	06/21/17 21:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.13		0.025	0.010	mg/L	-	06/22/17 07:36	06/23/17 01:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	06/21/17 10:30	06/23/17 15:09	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/21/17 10:30	06/23/17 15:09	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	06/21/17 11:45	06/22/17 10:42	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.046	B	0.020	0.0066	mg/Kg	☼	06/21/17 08:00	06/21/17 11:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.2	0.2	SU	-		06/28/17 13:07	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

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
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-3

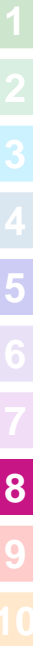
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/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



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 #: 500-129676
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 3, 4, 5, 6

Client		Client Project #		Preservative		Parameter		Matrix		Comments		
<u>E+E</u>		<u>1009341.0015.02</u>								Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other		
Project Name		Project Location/State		Lab Project #		Sampler		Lab PM				
<u>176-001-W015</u>		<u>Crestwood, IL</u>				<u>EF, JH</u>		<u>D. Wright</u>				
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOC	SVOC	Total/TCLP Metals	PH/Percent Solids		
			Date	Time								
3		<u>2274V-03-B08(0-4)</u>	<u>6/15/17</u>	<u>1050</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
4		<u>2274V-03-B07(0-4)</u>	<u>6/15/17</u>	<u>1105</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
5		<u>2274V-03-B06(0-8)</u>	<u>6/15/17</u>	<u>1135</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
6		<u>2274V-03-B06(8-16)</u>	<u>6/15/17</u>	<u>1140</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
7		<u>2274V-03-B02(0-4)</u>	<u>6/15/17</u>	<u>1230</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
8		<u>2274V-03-B04(0-4)</u>	<u>6/15/17</u>	<u>1245</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
9		<u>2274V-03-B05(0-2)</u>	<u>6/15/17</u>	<u>1255</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
10		<u>2274V-03-B03(0-2)</u>	<u>6/15/17</u>	<u>1308</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
11		<u>2274V-03-B01(0-8)</u>	<u>6/15/17</u>	<u>1350</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
12		<u>2274V-03-B01(8-16)</u>	<u>6/15/17</u>	<u>1355</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other
 Requested Due Date: _____

Sample Disposal
 Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>V. Wragles</u> Company: <u>E+E</u> Date: <u>6/15/17</u> Time: <u>1030</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/15/17</u> Time: <u>1530</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/15/17</u> Time: <u>1625</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/15/17</u> Time: <u>1625</u>

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

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

Client Comments:

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.634.5200 Fax: 708.634.5211

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

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

Chain of Custody Record

Lab Job #: 500-129676
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 3.4, 5.6

Client		Client Project #		Preservative		Parameter		Comments		
E&E		10093410015.02						Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other		
Project Name		Project Location/State		Lab Project #		Lab PM				
176-001-W015		Crestwood, IL				R. Wright				
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix				
13		2274V-03-BD(18-16)D	6/15/17	1355	5	S	VOC	SUOC	Total TCLP Metals	pH/Percent Solids
							X	X	X	X
/										

Turnaround Time Required (Business Days)

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

Requested Due Date _____

Sample Disposal

Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished by: <u>[Signature]</u> Company: <u>E&E</u> Date: <u>6/15/17</u> Time: <u>1530</u>	Received by: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/15/17</u> Time: <u>1530</u>
Relinquished by: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/15/17</u> Time: <u>1625</u>	Received by: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/15/17</u> Time: <u>1625</u>

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

Matrix Key

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

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-129676-3

Login Number: 129676

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	3.4, 5.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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ANALYTICAL REPORT

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

TestAmerica Job ID: 500-143305-2
Client Project/Site: IDOT - IL 83 - WO 015B

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

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
4/16/2018 5:07:16 PM
Jodie Bracken, Project Management Assistant II
jodie.bracken@testamericainc.com

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

LINKS

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

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

1

2

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Job ID: 500-143305-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-143305-2

Receipt

The samples were received on 4/4/2018 3:53 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.9° C.

GC/MS VOA

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

GC/MS Semi VOA

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

Metals

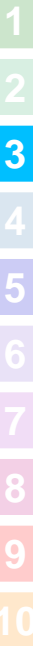
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B10 (16-20)

Lab Sample ID: 500-143305-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.017	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.023	J	0.039	0.0079	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.022	J	0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Arsenic	8.8		0.59	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	15		0.59	0.068	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.32		0.24	0.056	mg/Kg	1	☼	6010B	Total/NA
Boron	10		3.0	0.28	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	190000	B	120	20	mg/Kg	10	☼	6010B	Total/NA
Chromium	6.9		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.8		0.30	0.078	mg/Kg	1	☼	6010B	Total/NA
Copper	19		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	14000	B	12	6.2	mg/Kg	1	☼	6010B	Total/NA
Lead	11		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	110000		59	29	mg/Kg	10	☼	6010B	Total/NA
Manganese	350		0.59	0.086	mg/Kg	1	☼	6010B	Total/NA
Nickel	20		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		30	11	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.66	B	0.59	0.35	mg/Kg	1	☼	6010B	Total/NA
Silver	0.14	J	0.30	0.077	mg/Kg	1	☼	6010B	Total/NA
Sodium	200		59	8.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	8.8		0.30	0.070	mg/Kg	1	☼	6010B	Total/NA
Zinc	32		1.2	0.52	mg/Kg	1	☼	6010B	Total/NA
Barium	0.22	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.083	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0025	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.045		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.4		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.10	B	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.028	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.037		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.024		0.020	0.0065	mg/Kg	1	☼	7471B	Total/NA
pH	7.6		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-03-B09 (0-7)

Lab Sample ID: 500-143305-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0076	J	0.038	0.0058	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.011	J	0.038	0.0050	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0061	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.090		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.025	J	0.038	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.26		0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.24		0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.13		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.15		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.25		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.091		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.15		0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.062		0.038	0.0098	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 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B09 (0-7) (Continued)

Lab Sample ID: 500-143305-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzof[g,h,i]perylene	0.060		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	8.1		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	31		0.58	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.40		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Boron	8.9		2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.34	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	130000	B	120	20	mg/Kg	10	☼	6010B	Total/NA
Chromium	9.5		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.4		0.29	0.076	mg/Kg	1	☼	6010B	Total/NA
Copper	22		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	14000	B	12	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	94		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	41000		5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	330		0.58	0.084	mg/Kg	1	☼	6010B	Total/NA
Nickel	19		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	1200		29	10	mg/Kg	1	☼	6010B	Total/NA
Silver	0.21	J	0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Sodium	310		58	8.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	11		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	69		1.2	0.51	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
Cadmium	0.0043	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Lead	0.020		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	2.0		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.024	J B	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.055	J	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.13		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.25		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.032		0.018	0.0058	mg/Kg	1	☼	7471B	Total/NA
pH	7.9		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-03-B09 (7-14)

Lab Sample ID: 500-143305-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.0		0.52	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	9.9		0.52	0.060	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.30		0.21	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	15		2.6	0.24	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12	B	0.10	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	220000	B	100	18	mg/Kg	10	☼	6010B	Total/NA
Chromium	5.4		0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.7		0.26	0.069	mg/Kg	1	☼	6010B	Total/NA
Copper	8.3		0.52	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	8000	B	10	5.5	mg/Kg	1	☼	6010B	Total/NA
Lead	4.7		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	130000		52	26	mg/Kg	10	☼	6010B	Total/NA
Manganese	280		0.52	0.076	mg/Kg	1	☼	6010B	Total/NA
Nickel	10		0.52	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		26	9.3	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B09 (7-14) (Continued)

Lab Sample ID: 500-143305-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.36	J B	0.52	0.31	mg/Kg	1	☼	6010B	Total/NA
Silver	0.11	J	0.26	0.068	mg/Kg	1	☼	6010B	Total/NA
Sodium	250		52	7.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	6.9		0.26	0.062	mg/Kg	1	☼	6010B	Total/NA
Zinc	23		1.0	0.46	mg/Kg	1	☼	6010B	Total/NA
Barium	0.15	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.082	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0021	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	1.3		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.026	B	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.026		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.010	J	0.017	0.0057	mg/Kg	1	☼	7471B	Total/NA
pH	8.0		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-03-B09 (14-20)

Lab Sample ID: 500-143305-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.0090	J	0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.013	J	0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.022	J	0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.016	J	0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Arsenic	8.0		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	14		0.55	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.31		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	8.7		2.7	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.26	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	170000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Chromium	6.5		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.6		0.27	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	13000	B	11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	12		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	51000		5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	380		0.55	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	18		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1200		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.57	B	0.55	0.32	mg/Kg	1	☼	6010B	Total/NA
Silver	0.14	J	0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Sodium	500		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.27	J	0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Vanadium	8.5		0.27	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	45		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.22	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.060	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0034	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.041		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.4		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.085	B	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.024	J	0.50	0.020	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 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B09 (14-20) (Continued)

Lab Sample ID: 500-143305-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.028		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.021		0.018	0.0059	mg/Kg	1	*	7471B	Total/NA
pH	7.8		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 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-143305-2	2274V-03-B10 (16-20)	Solid	04/04/18 11:00	04/04/18 15:53
500-143305-3	2274V-03-B09 (0-7)	Solid	04/04/18 12:10	04/04/18 15:53
500-143305-4	2274V-03-B09 (7-14)	Solid	04/04/18 12:20	04/04/18 15:53
500-143305-5	2274V-03-B09 (14-20)	Solid	04/04/18 12:25	04/04/18 15:53

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B10 (16-20)

Lab Sample ID: 500-143305-2

Date Collected: 04/04/18 11:00

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 83.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0074	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Carbon disulfide	<0.0042		0.0042	0.00088	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
1,1,1,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00072	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	04/04/18 17:00	04/05/18 14:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		75 - 131	04/04/18 17:00	04/05/18 14:01	1
Dibromofluoromethane	107		75 - 126	04/04/18 17:00	04/05/18 14:01	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 134	04/04/18 17:00	04/05/18 14:01	1
Toluene-d8 (Surr)	113		75 - 124	04/04/18 17:00	04/05/18 14:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B10 (16-20)

Lab Sample ID: 500-143305-2

Date Collected: 04/04/18 11:00

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 83.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
2-Methylnaphthalene	<0.080		0.080	0.0073	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Pentachlorophenol	<0.80		0.80	0.63	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Phenanthrene	0.017	J	0.039	0.0055	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Pyrene	0.023	J	0.039	0.0079	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B10 (16-20)

Lab Sample ID: 500-143305-2

Date Collected: 04/04/18 11:00

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 83.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.022	J	0.039	0.011	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	04/09/18 07:26	04/10/18 13:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	124		46 - 133	04/09/18 07:26	04/10/18 13:40	1
Phenol-d5	115		46 - 125	04/09/18 07:26	04/10/18 13:40	1
Nitrobenzene-d5	92		41 - 120	04/09/18 07:26	04/10/18 13:40	1
2-Fluorobiphenyl	96		44 - 121	04/09/18 07:26	04/10/18 13:40	1
2,4,6-Tribromophenol	101		25 - 139	04/09/18 07:26	04/10/18 13:40	1
Terphenyl-d14	94		35 - 160	04/09/18 07:26	04/10/18 13:40	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1
Arsenic	8.8		0.59	0.20	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1
Barium	15		0.59	0.068	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1
Beryllium	0.32		0.24	0.056	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1
Boron	10		3.0	0.28	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1
Cadmium	0.16	B	0.12	0.021	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1
Calcium	190000	B	120	20	mg/Kg	☼	04/05/18 15:52	04/09/18 21:21	10
Chromium	6.9		0.59	0.29	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1
Cobalt	8.8		0.30	0.078	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1
Copper	19		0.59	0.17	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1
Iron	14000	B	12	6.2	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1
Lead	11		0.30	0.14	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1
Magnesium	110000		59	29	mg/Kg	☼	04/05/18 15:52	04/09/18 21:21	10
Manganese	350		0.59	0.086	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1
Nickel	20		0.59	0.17	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1
Potassium	1300		30	11	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1
Selenium	0.66	B	0.59	0.35	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1
Silver	0.14	J	0.30	0.077	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1
Sodium	200		59	8.8	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1
Thallium	<0.59		0.59	0.30	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1
Vanadium	8.8		0.30	0.070	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1
Zinc	32		1.2	0.52	mg/Kg	☼	04/05/18 15:52	04/06/18 18:48	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.22	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 18:57	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/06/18 14:21	04/09/18 18:57	1
Boron	0.083	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 18:57	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B10 (16-20)

Lab Sample ID: 500-143305-2

Date Collected: 04/04/18 11:00

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 83.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0025	J	0.0050	0.0020	mg/L	-	04/06/18 14:21	04/09/18 18:57	1
Chromium	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 18:57	1
Cobalt	0.045		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 18:57	1
Iron	<0.40		0.40	0.20	mg/L	-	04/06/18 14:21	04/09/18 18:57	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	04/06/18 14:21	04/09/18 18:57	1
Manganese	2.4		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 18:57	1
Nickel	0.10	B	0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 18:57	1
Selenium	<0.050		0.050	0.020	mg/L	-	04/06/18 14:21	04/09/18 18:57	1
Silver	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 18:57	1
Zinc	0.028	J	0.50	0.020	mg/L	-	04/06/18 14:21	04/09/18 18:57	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.037		0.025	0.010	mg/L	-	04/06/18 14:20	04/10/18 06:05	1
Nickel	<0.025		0.025	0.010	mg/L	-	04/06/18 14:20	04/10/18 06:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	04/06/18 14:21	04/10/18 14:25	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	04/06/18 14:21	04/10/18 14:25	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	04/06/18 13:02	04/09/18 08:29	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.020	0.0065	mg/Kg	☼	04/05/18 14:15	04/06/18 09:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.2	0.2	SU	-		04/13/18 16:24	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B09 (0-7)

Lab Sample ID: 500-143305-3

Date Collected: 04/04/18 12:10

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0075	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 14:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		75 - 131	04/04/18 17:00	04/05/18 14:26	1
Dibromofluoromethane	107		75 - 126	04/04/18 17:00	04/05/18 14:26	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 134	04/04/18 17:00	04/05/18 14:26	1
Toluene-d8 (Surr)	107		75 - 124	04/04/18 17:00	04/05/18 14:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B09 (0-7)

Lab Sample ID: 500-143305-3

Date Collected: 04/04/18 12:10

Matrix: Solid

Date Received: 04/04/18 15:53

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	☼	04/09/18 07:26	04/10/18 16:02	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Nitrobenzene	<0.038		0.038	0.0094	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Naphthalene	0.0076	J	0.038	0.0058	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
2,4,5-Trichlorophenol	<0.38		0.38	0.086	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
2-Methylnaphthalene	<0.076		0.076	0.0070	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
2-Nitrophenol	<0.38		0.38	0.089	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
2,4-Dinitrophenol	<0.76		0.76	0.67	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Acenaphthylene	0.011	J	0.038	0.0050	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Fluorene	0.0061	J	0.038	0.0053	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Phenanthrene	0.090		0.038	0.0053	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Anthracene	0.025	J	0.038	0.0063	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Fluoranthene	0.26		0.038	0.0070	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Pyrene	0.24		0.038	0.0075	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Benzo[a]anthracene	0.13		0.038	0.0051	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B09 (0-7)

Lab Sample ID: 500-143305-3

Date Collected: 04/04/18 12:10

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.15		0.038	0.010	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Benzo[b]fluoranthene	0.25		0.038	0.0082	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Benzo[k]fluoranthene	0.091		0.038	0.011	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Benzo[a]pyrene	0.15		0.038	0.0073	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Indeno[1,2,3-cd]pyrene	0.062		0.038	0.0098	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
Benzo[g,h,i]perylene	0.060		0.038	0.012	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	04/09/18 07:26	04/10/18 16:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	108		46 - 133	04/09/18 07:26	04/10/18 16:02	1
Phenol-d5	101		46 - 125	04/09/18 07:26	04/10/18 16:02	1
Nitrobenzene-d5	87		41 - 120	04/09/18 07:26	04/10/18 16:02	1
2-Fluorobiphenyl	90		44 - 121	04/09/18 07:26	04/10/18 16:02	1
2,4,6-Tribromophenol	98		25 - 139	04/09/18 07:26	04/10/18 16:02	1
Terphenyl-d14	102		35 - 160	04/09/18 07:26	04/10/18 16:02	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Arsenic	8.1		0.58	0.20	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Barium	31		0.58	0.066	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Beryllium	0.40		0.23	0.054	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Boron	8.9		2.9	0.27	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Cadmium	0.34	B	0.12	0.021	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Calcium	130000	B	120	20	mg/Kg	☼	04/05/18 15:52	04/09/18 21:26	10
Chromium	9.5		0.58	0.29	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Cobalt	8.4		0.29	0.076	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Copper	22		0.58	0.16	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Iron	14000	B	12	6.0	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Lead	94		0.29	0.13	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Magnesium	41000		5.8	2.9	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Manganese	330		0.58	0.084	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Nickel	19		0.58	0.17	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Potassium	1200		29	10	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Selenium	<0.58		0.58	0.34	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Silver	0.21	J	0.29	0.075	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Sodium	310		58	8.6	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Vanadium	11		0.29	0.068	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1
Zinc	69		1.2	0.51	mg/Kg	☼	04/05/18 15:52	04/06/18 18:53	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.36	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 19:01	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/06/18 14:21	04/09/18 19:01	1
Boron	0.084	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 19:01	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B09 (0-7)

Lab Sample ID: 500-143305-3

Date Collected: 04/04/18 12:10

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0043	J	0.0050	0.0020	mg/L	-	04/06/18 14:21	04/09/18 19:01	1
Chromium	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:01	1
Cobalt	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:01	1
Iron	<0.40		0.40	0.20	mg/L	-	04/06/18 14:21	04/09/18 19:01	1
Lead	0.020		0.0075	0.0075	mg/L	-	04/06/18 14:21	04/09/18 19:01	1
Manganese	2.0		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:01	1
Nickel	0.024	J B	0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:01	1
Selenium	<0.050		0.050	0.020	mg/L	-	04/06/18 14:21	04/09/18 19:01	1
Silver	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:01	1
Zinc	0.055	J	0.50	0.020	mg/L	-	04/06/18 14:21	04/09/18 19:01	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.13		0.0075	0.0075	mg/L	-	04/06/18 14:20	04/10/18 06:10	1
Manganese	0.25		0.025	0.010	mg/L	-	04/06/18 14:20	04/10/18 06:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	04/06/18 14:21	04/10/18 14:26	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	04/06/18 14:21	04/10/18 14:26	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	-	04/06/18 13:02	04/09/18 08:31	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032		0.018	0.0058	mg/Kg	☼	04/05/18 14:15	04/06/18 09:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.2	0.2	SU	-		04/13/18 16:26	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B09 (7-14)

Lab Sample ID: 500-143305-4

Date Collected: 04/04/18 12:20

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 89.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0080	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Carbon disulfide	<0.0046		0.0046	0.00095	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Chlorobenzene	<0.0018		0.0018	0.00067	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Chloromethane	<0.0046		0.0046	0.0018	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Ethylbenzene	<0.0018		0.0018	0.00087	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00078	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Vinyl acetate	<0.0046		0.0046	0.0016	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1
Xylenes, Total	<0.0037		0.0037	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 14:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		75 - 131	04/04/18 17:00	04/05/18 14:52	1
Dibromofluoromethane	108		75 - 126	04/04/18 17:00	04/05/18 14:52	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 134	04/04/18 17:00	04/05/18 14:52	1
Toluene-d8 (Surr)	104		75 - 124	04/04/18 17:00	04/05/18 14:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.082	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B09 (7-14)

Lab Sample ID: 500-143305-4

Date Collected: 04/04/18 12:20

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 89.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Hexachloroethane	<0.18		0.18	0.056	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
2-Chlorophenol	<0.18		0.18	0.063	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Nitrobenzene	<0.036		0.036	0.0092	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Hexachlorobutadiene	<0.18		0.18	0.058	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
2,4,6-Trichlorophenol	<0.36		0.36	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
2,4,5-Trichlorophenol	<0.36		0.36	0.084	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
2-Methylnaphthalene	<0.074		0.074	0.0068	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
2-Chloronaphthalene	<0.18		0.18	0.041	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
2-Nitrophenol	<0.36		0.36	0.087	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Acenaphthene	<0.036		0.036	0.0066	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Fluorene	<0.036		0.036	0.0052	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.30	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Phenanthrene	<0.036		0.036	0.0051	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Anthracene	<0.036		0.036	0.0061	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Carbazole	<0.18		0.18	0.092	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Fluoranthene	<0.036		0.036	0.0068	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Pyrene	<0.036		0.036	0.0073	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Butyl benzyl phthalate	<0.18		0.18	0.070	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Benzo[a]anthracene	<0.036		0.036	0.0049	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B09 (7-14)

Lab Sample ID: 500-143305-4

Date Collected: 04/04/18 12:20

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 89.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.036		0.036	0.010	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Di-n-octyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Benzo[b]fluoranthene	<0.036		0.036	0.0079	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Benzo[a]pyrene	<0.036		0.036	0.0071	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0095	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0071	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
Benzo[g,h,i]perylene	<0.036		0.036	0.012	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	04/09/18 07:26	04/10/18 11:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	109		46 - 133	04/09/18 07:26	04/10/18 11:45	1
Phenol-d5	98		46 - 125	04/09/18 07:26	04/10/18 11:45	1
Nitrobenzene-d5	82		41 - 120	04/09/18 07:26	04/10/18 11:45	1
2-Fluorobiphenyl	81		44 - 121	04/09/18 07:26	04/10/18 11:45	1
2,4,6-Tribromophenol	89		25 - 139	04/09/18 07:26	04/10/18 11:45	1
Terphenyl-d14	89		35 - 160	04/09/18 07:26	04/10/18 11:45	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.20	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1
Arsenic	3.0		0.52	0.18	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1
Barium	9.9		0.52	0.060	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1
Beryllium	0.30		0.21	0.049	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1
Boron	15		2.6	0.24	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1
Cadmium	0.12	B	0.10	0.019	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1
Calcium	220000	B	100	18	mg/Kg	☼	04/05/18 15:52	04/09/18 21:31	10
Chromium	5.4		0.52	0.26	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1
Cobalt	3.7		0.26	0.069	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1
Copper	8.3		0.52	0.15	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1
Iron	8000	B	10	5.5	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1
Lead	4.7		0.26	0.12	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1
Magnesium	130000		52	26	mg/Kg	☼	04/05/18 15:52	04/09/18 21:31	10
Manganese	280		0.52	0.076	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1
Nickel	10		0.52	0.15	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1
Potassium	1300		26	9.3	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1
Selenium	0.36	J B	0.52	0.31	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1
Silver	0.11	J	0.26	0.068	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1
Sodium	250		52	7.8	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1
Thallium	<0.52		0.52	0.26	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1
Vanadium	6.9		0.26	0.062	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1
Zinc	23		1.0	0.46	mg/Kg	☼	04/05/18 15:52	04/06/18 19:13	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.15	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 19:05	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/06/18 14:21	04/09/18 19:05	1
Boron	0.082	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 19:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B09 (7-14)

Lab Sample ID: 500-143305-4

Date Collected: 04/04/18 12:20

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 89.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0021	J	0.0050	0.0020	mg/L	-	04/06/18 14:21	04/09/18 19:05	1
Chromium	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:05	1
Cobalt	0.013	J	0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:05	1
Iron	<0.40		0.40	0.20	mg/L	-	04/06/18 14:21	04/09/18 19:05	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	04/06/18 14:21	04/09/18 19:05	1
Manganese	1.3		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:05	1
Nickel	0.026	B	0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:05	1
Selenium	<0.050		0.050	0.020	mg/L	-	04/06/18 14:21	04/09/18 19:05	1
Silver	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:05	1
Zinc	<0.50		0.50	0.020	mg/L	-	04/06/18 14:21	04/09/18 19:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.026		0.025	0.010	mg/L	-	04/06/18 14:20	04/10/18 06:15	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	-	04/06/18 14:21	04/10/18 14:27	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	04/06/18 14:21	04/10/18 14:27	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	04/06/18 13:02	04/09/18 08:36	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.010	J	0.017	0.0057	mg/Kg	☼	04/05/18 14:15	04/06/18 09:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.0		0.2	0.2	SU	-		04/13/18 16:29	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B09 (14-20)

Lab Sample ID: 500-143305-5

Date Collected: 04/04/18 12:25

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0076	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Bromoform	<0.0017		0.0017	0.00051	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00049	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
1,2-Dichloroethane	<0.0043		0.0043	0.0014	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
1,1-Dichloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
2-Hexanone	<0.0043		0.0043	0.0014	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Trichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Vinyl chloride	<0.0017		0.0017	0.00077	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	04/04/18 17:00	04/05/18 15:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		75 - 131	04/04/18 17:00	04/05/18 15:17	1
Dibromofluoromethane	102		75 - 126	04/04/18 17:00	04/05/18 15:17	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 134	04/04/18 17:00	04/05/18 15:17	1
Toluene-d8 (Surr)	111		75 - 124	04/04/18 17:00	04/05/18 15:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.083	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B09 (14-20)

Lab Sample ID: 500-143305-5

Date Collected: 04/04/18 12:25

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.046	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
2-Methylnaphthalene	<0.075		0.075	0.0069	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
2,4-Dinitrophenol	<0.75		0.75	0.66	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Phenanthrene	0.0090	J	0.037	0.0052	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Carbazole	<0.19		0.19	0.093	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Fluoranthene	0.013	J	0.037	0.0069	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Pyrene	0.022	J	0.037	0.0074	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B09 (14-20)

Lab Sample ID: 500-143305-5

Date Collected: 04/04/18 12:25

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.016	J	0.037	0.010	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Benzo[b]fluoranthene	<0.037		0.037	0.0080	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Benzo[a]pyrene	<0.037		0.037	0.0072	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0097	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	04/09/18 07:26	04/10/18 13:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	130		46 - 133	04/09/18 07:26	04/10/18 13:11	1
Phenol-d5	116		46 - 125	04/09/18 07:26	04/10/18 13:11	1
Nitrobenzene-d5	94		41 - 120	04/09/18 07:26	04/10/18 13:11	1
2-Fluorobiphenyl	94		44 - 121	04/09/18 07:26	04/10/18 13:11	1
2,4,6-Tribromophenol	95		25 - 139	04/09/18 07:26	04/10/18 13:11	1
Terphenyl-d14	103		35 - 160	04/09/18 07:26	04/10/18 13:11	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Arsenic	8.0		0.55	0.19	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Barium	14		0.55	0.062	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Beryllium	0.31		0.22	0.051	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Boron	8.7		2.7	0.26	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Cadmium	0.26	B	0.11	0.020	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Calcium	170000	B	110	19	mg/Kg	☼	04/05/18 15:52	04/09/18 21:36	10
Chromium	6.5		0.55	0.27	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Cobalt	8.6		0.27	0.072	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Copper	20		0.55	0.15	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Iron	13000	B	11	5.7	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Lead	12		0.27	0.13	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Magnesium	51000		5.5	2.7	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Manganese	380		0.55	0.079	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Nickel	18		0.55	0.16	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Potassium	1200		27	9.7	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Selenium	0.57	B	0.55	0.32	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Silver	0.14	J	0.27	0.071	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Sodium	500		55	8.1	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Thallium	0.27	J	0.55	0.27	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Vanadium	8.5		0.27	0.065	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1
Zinc	45		1.1	0.48	mg/Kg	☼	04/05/18 15:52	04/06/18 19:18	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.22	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 19:09	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/06/18 14:21	04/09/18 19:09	1
Boron	0.060	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 19:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Client Sample ID: 2274V-03-B09 (14-20)

Lab Sample ID: 500-143305-5

Date Collected: 04/04/18 12:25

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0034	J	0.0050	0.0020	mg/L	-	04/06/18 14:21	04/09/18 19:09	1
Chromium	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:09	1
Cobalt	0.041		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:09	1
Iron	<0.40		0.40	0.20	mg/L	-	04/06/18 14:21	04/09/18 19:09	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	04/06/18 14:21	04/09/18 19:09	1
Manganese	2.4		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:09	1
Nickel	0.085	B	0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:09	1
Selenium	<0.050		0.050	0.020	mg/L	-	04/06/18 14:21	04/09/18 19:09	1
Silver	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:09	1
Zinc	0.024	J	0.50	0.020	mg/L	-	04/06/18 14:21	04/09/18 19:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.028		0.025	0.010	mg/L	-	04/06/18 14:20	04/10/18 06:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	04/06/18 14:21	04/10/18 14:28	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	04/06/18 14:21	04/10/18 14:28	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	04/06/18 13:02	04/09/18 08:38	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.021		0.018	0.0059	mg/Kg	☼	04/05/18 14:15	04/06/18 09:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.2	0.2	SU	-		04/13/18 16:31	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Qualifiers

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-2

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

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

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

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

Chain of Custody Record

Lab Job #: 500-143305

Chain of Custody Number: E9158-02

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Preservative Key	
EE		1009008-0015-03																		1. HCl, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHCO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #																			
176-001-1513		50013767																			
Project Location/State		Lab PM																			
Cook County, IL		D Wujt																			
Sampler																					
S. Cooper																					
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOL	SVOL	TOTAL	metL	TOTAL	metL	P&S	40	SIL						Comments
			Date	Time																	
2		2274V-03-BW (16-20)	4-4-18	1100	2 S		X	X	X	X	X	X	X								
3		2274V-03-B09 (0-7)	4-4-18	1210	2 S		X	X	X	X	X	X	X								
4		2274V-03-B09 (7-14)	4-4-18	1220	2 S		X	X	X	X	X	X	X								
5		2274V-03-B09 (14-20)	4-4-18	1225	2 S		X	X	X	X	X	X	X								

Turnaround Time Required (Business Days):
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other

Requested Due Date: _____

Sample Disposal:
 Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>4/4/18</u> Time: <u>1515</u>	Received By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>4/4/18</u> Time: <u>1515</u>
Relinquished By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>4/4/18</u> Time: <u>1533</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>04/04/18</u> Time: <u>1553</u>

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: 500-143305-2

Login Number: 143305

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn 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	4.9c
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: FAP 344 (Illinois Route 83) Office Phone Number, if available: _____

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

5300 block of W. 127th Street (ISGS #2274V-4)

City: Alsip and Crestwood State: IL Zip Code: 60803 & 60445

County: Cook Township: Worth

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

Latitude: 41.66169 Longitude: -87.75283

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Tyler Petersen

Contact: Tyler Petersen

Email, if available: Tyler.Petersen@illinois.gov

Email, if available: Tyler.Petersen@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 344 (Illinois Route 83)Latitude: 41.66169 Longitude: -87.75283Uncontaminated 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 2274V-04-B01, -B02, and -B03 were sampled within the construction zone adjacent to ISGS #2274V-4 (Tinley Creek). Refer to PSI Report for ISGS #2274V-4 (Tinley Creek) including Table 4-3, and Figures 4-2 and 4-4.

- 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 J129676-2, J129768-1, and J143305-1.

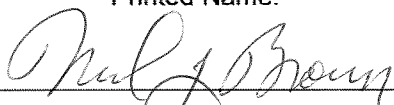
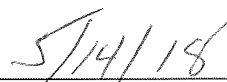
IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

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

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

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

Printed Name:

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

Date:

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





Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15B

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 or not applicable.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.
- PID = Photoionization detector.
- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

- # = pH is less than 6.25 or greater than 9.0 standard units.
- ** = Headspace reading above background (outside of instrument margin of error).
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Headspace reading exceeds background levels
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #2274V-4 (Tinley Creek)		Comparison Criteria					
	2274V-04-B01	2274V-04-B02	MACs			TACO		
BORING	2274V-04-B01 (0-2)	2274V-04-B02 (0-2)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	Soil	Soil						
MATRIX	0-2	0-2						
DEPTH (feet)	7.6	8.0						
pH								
VOCs (None Detected)								
SVOCs (mg/kg)								
Acenaphthylene	ND U	0.0067 J	--	--	--	--	--	--
Anthracene	ND U	0.029 J	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	ND U	0.21	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	ND U	0.23 †	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	ND U	0.36	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	ND U	0.11	--	--	--	--	--	--
Benzo(k)fluoranthene	ND U	0.12	9	--	--	9	1,700	--
Bis(2-ethylhexyl) phthalate	ND U	0.097 J	46	--	--	46	4,100	--
Chrysene	0.042	0.27	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	ND U	0.039	0.09	0.42	0.2	0.42	17	--
Fluoranthene	ND U	0.49	3,100	--	--	3,100	82,000	--
Fluorene	ND U	0.0085 J	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	ND U	0.11	0.9	1.6	0.9	1.6	170	--
Phenanthrene	0.024 J	0.16	--	--	--	--	--	--
Pyrene	ND U	0.43	2,300	--	--	2,300	61,000	--
Pesticides (mg/kg)								
4,4'-DDE	ND U	0.013	2	--	--	2	370	--
4,4'-DDT	ND U	0.0089 J	2	--	--	2	100	--
PCBs (mg/kg)								
PCB-1254	ND U	0.11	1	--	--	1	1	--
PCBs, total	ND	0.11	--	--	--	--	--	--
Inorganics (mg/kg)								
Antimony	ND U	0.24 J	5	--	--	31	82	--
Arsenic	11	6.8	11.3	13	--	13	61	--
Barium	18	74	1,500	--	--	5,500	14,000	--
Beryllium	0.34	0.57	22	--	--	160	410	--
Boron	8.6	2.8	40	--	--	16,000	41,000	--
Cadmium	0.14	0.71	5.2	--	--	78	200	--
Calcium	82,000	22,000	--	--	--	--	--	--
Chromium	9.0	19	21	--	--	230	690	--
Cobalt	14	10	20	--	--	4,700	12,000	--
Copper	30	22	2,900	--	--	2,900	8,200	--
Iron	18,000 †m	17,000 †m	15,000	15,900	--	--	--	--
Lead	15	32	107	--	--	400	700	--
Magnesium	38,000	21,000	325,000	--	--	--	730,000	--
Manganese	380	370	630	636	--	1,600	4,100	--
Mercury	ND U	0.073	0.89	--	--	10	0.1	--
Nickel	28	25	100	--	--	1,600	4,100	--
Potassium	1,700	1,600	--	--	--	--	--	--
Selenium	0.90	ND U	1.3	--	--	390	1,000	--
Silver	ND U	0.081 J	4.4	--	--	390	1,000	--
Sodium	470	240	--	--	--	--	--	--
Thallium	0.76	ND U	2.6	--	--	6.3	160	--
Vanadium	11	18	550	--	--	550	1,400	--
Zinc	54	92	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)								
Barium	0.23 J	0.31 J	--	--	--	--	--	2
Cadmium	ND U	0.0065 L	--	--	--	--	--	0.005
Cobalt	0.055	ND U	--	--	--	--	--	1
Iron	ND U	ND U	--	--	--	--	--	5
Manganese	2.7 L	0.32 L	--	--	--	--	--	0.15
Nickel	0.11 L	0.013 J	--	--	--	--	--	0.1
Zinc	0.027 J	0.071 J	--	--	--	--	--	5
SPLP Metals (mg/L)								
Cadmium	NA	0.0025 J	--	--	--	--	--	0.005
Manganese	0.053	0.43 L	--	--	--	--	--	0.15
Nickel	ND U	NA	--	--	--	--	--	0.1

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15B

CONTAMINANTS OF CONCERN

SITE	ISGS #2274V-4 (Tinley Creek)	Comparison Criteria					
BORING	2274V-04-B03	MACs			TACO		
SAMPLE	2274V-04-B03 (0-2)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil						
DEPTH (feet)	0-2						
pH	7.9						
PID > Bkgd.	--						
VOCs (mg/kg)							
Acetone	0.0097 J	25	--	--	70,000	100,000	--
SVOCs (mg/kg)							
Acenaphthene	0.015 J	570	--	--	4,700	120,000	--
Chrysene	0.040	88	--	--	88	17,000	--
Fluoranthene	0.010 J	3,100	--	--	3,100	82,000	--
Phenanthrene	0.067	--	--	--	--	--	--
Pyrene	0.042	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)							
Arsenic	9.9 J	11.3	13	--	13	61	--
Barium	26	1,500	--	--	5,500	14,000	--
Beryllium	0.57	22	--	--	160	410	--
Boron	10	40	--	--	16,000	41,000	--
Cadmium	0.25	5.2	--	--	78	200	--
Calcium	89,000	--	--	--	--	--	--
Chromium	11	21	--	--	230	690	--
Cobalt	15	20	--	--	4,700	12,000	--
Copper	31	2,900	--	--	2,900	8,200	--
Iron	19,000 †m	15,000	15,900	--	--	--	--
Lead	17	107	--	--	400	700	--
Magnesium	35,000	325,000	--	--	--	730,000	--
Manganese	380	630	636	--	1,600	4,100	--
Mercury	0.032	0.89	--	--	10	0.1	--
Nickel	32	100	--	--	1,600	4,100	--
Potassium	2,000 J	--	--	--	--	--	--
Silver	0.21 J	4.4	--	--	390	1,000	--
Sodium	160	--	--	--	--	--	--
Thallium	0.54 J	2.6	--	--	6.3	160	--
Vanadium	13	550	--	--	550	1,400	--
Zinc	53	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)							
Barium	0.32 J	--	--	--	--	--	2
Boron	0.055 J	--	--	--	--	--	2
Cadmium	0.0024 J	--	--	--	--	--	0.005
Cobalt	0.057	--	--	--	--	--	1
Iron	ND U	--	--	--	--	--	5
Lead	ND U	--	--	--	--	--	0.0075
Manganese	2.8 L	--	--	--	--	--	0.15
Nickel	0.12 L	--	--	--	--	--	0.1
Zinc	0.025 J	--	--	--	--	--	5
SPLP Metals (mg/L)							
Manganese	0.065	--	--	--	--	--	0.15
Nickel	ND U	--	--	--	--	--	0.1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 500-129676-2
Client Project/Site: IDOT - IL 83 - WO 015

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/29/2017 4:38:21 PM

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

LINKS

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www.testamericainc.com

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-2

Job ID: 500-129676-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-129676-2

Comments

No additional comments.

Receipt

The samples were received on 6/15/2017 4:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 5.6° 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 500-390387 had 1 analyte outside control limits: 2,4-Dinitrophenol. These results have been reported and qualified. (LCS 500-390387/2-A)

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

GC Semi VOA

Method(s) 8081B: The following sample was diluted due to the nature of the sample matrix: 2274V-04-B01 (0-2) (500-129676-2). Elevated reporting limits (RLs) are provided.

Method(s) 8081B: The following sample required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: 2274V-04-B01 (0-2) (500-129676-2). The reagent lot number used was: 165418.

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

Metals

Method(s) 6010B: The continuing calibration verification (CCV) associated with batch 500-390443 recovered above the upper control limit for Zinc. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: 2274V-04-B01 (0-2) (500-129676-2) and (500-129676-E-20-D).

Method(s) 6010B: The laboratory control sample (LCS) for preparation batch 500-390154 and 500-390310 and analytical batch 500-390443 recovered outside control limits for the following analyte: Iron. The analyte was biased high in the LCS and were not detected in the associated samples 2274V-04-B01 (0-2) (500-129676-2), (500-129676-E-20-D), (500-129676-E-20-E DU), (500-129676-E-20-F MS) and (500-129676-E-20-D SD); therefore, the data have been reported.

Method(s) 6010B: The method blank for preparation batch 500-390633 and analytical batch 500-390815 contained Zinc above the reporting limit (RL). Associated samples 2274V-04-B01 (0-2) (500-129676-2) and (500-129676-E-17-H) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

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

General Chemistry

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

Organic Prep

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

Detection Summary

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-2

Client Sample ID: 2274V-04-B01 (0-2)

Lab Sample ID: 500-129676-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Phenanthrene	0.024	J	0.039	0.0055	mg/Kg	1		☼	8270D	Total/NA
Chrysene	0.042		0.039	0.011	mg/Kg	1		☼	8270D	Total/NA
Arsenic	11		0.53	0.18	mg/Kg	1		☼	6010B	Total/NA
Barium	18		0.53	0.061	mg/Kg	1		☼	6010B	Total/NA
Beryllium	0.34		0.21	0.050	mg/Kg	1		☼	6010B	Total/NA
Boron	8.6		2.7	0.25	mg/Kg	1		☼	6010B	Total/NA
Cadmium	0.14		0.11	0.019	mg/Kg	1		☼	6010B	Total/NA
Calcium	82000	B	110	18	mg/Kg	10		☼	6010B	Total/NA
Chromium	9.0		0.53	0.26	mg/Kg	1		☼	6010B	Total/NA
Cobalt	14		0.27	0.070	mg/Kg	1		☼	6010B	Total/NA
Copper	30		0.53	0.15	mg/Kg	1		☼	6010B	Total/NA
Iron	18000	B	11	5.5	mg/Kg	1		☼	6010B	Total/NA
Lead	15		0.27	0.12	mg/Kg	1		☼	6010B	Total/NA
Magnesium	38000	B	5.3	2.6	mg/Kg	1		☼	6010B	Total/NA
Manganese	380	B	0.53	0.077	mg/Kg	1		☼	6010B	Total/NA
Nickel	28		0.53	0.15	mg/Kg	1		☼	6010B	Total/NA
Potassium	1700		27	9.4	mg/Kg	1		☼	6010B	Total/NA
Selenium	0.90		0.53	0.31	mg/Kg	1		☼	6010B	Total/NA
Sodium	470		53	7.9	mg/Kg	1		☼	6010B	Total/NA
Thallium	0.76		0.53	0.27	mg/Kg	1		☼	6010B	Total/NA
Vanadium	11		0.27	0.063	mg/Kg	1		☼	6010B	Total/NA
Zinc	54	B	1.1	0.47	mg/Kg	1		☼	6010B	Total/NA
Barium	0.23	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.089	J B	0.50	0.050	mg/L	1			6010B	TCLP
Cobalt	0.055		0.025	0.010	mg/L	1			6010B	TCLP
Manganese	2.7		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.11		0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.027	J ^	0.50	0.020	mg/L	1			6010B	TCLP
Manganese	0.053		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.048	B	0.020	0.0068	mg/Kg	1		☼	7471B	Total/NA
pH	7.6		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 83 - WO 015

TestAmerica Job ID: 500-129676-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-129676-2	2274V-04-B01 (0-2)	Solid	06/15/17 11:55	06/15/17 16:25

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-2

Client Sample ID: 2274V-04-B01 (0-2)

Lab Sample ID: 500-129676-2

Date Collected: 06/15/17 11:55

Matrix: Solid

Date Received: 06/15/17 16:25

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	0.0071	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Benzene	<0.0016		0.0016	0.00042	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Carbon disulfide	<0.0041		0.0041	0.00085	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Carbon tetrachloride	<0.0016		0.0016	0.00048	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Chlorobenzene	<0.0016		0.0016	0.00061	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Chloroform	<0.0016		0.0016	0.00057	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Chloromethane	<0.0041		0.0041	0.0016	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00046	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Dibromochloromethane	<0.0016		0.0016	0.00054	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00058	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Styrene	<0.0016		0.0016	0.00050	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Tetrachloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00073	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00058	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Vinyl chloride	<0.0016		0.0016	0.00073	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1
Xylenes, Total	<0.0033		0.0033	0.00052	mg/Kg	☼	06/15/17 17:16	06/19/17 16:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		75 - 131	06/15/17 17:16	06/19/17 16:12	1
Dibromofluoromethane	92		75 - 126	06/15/17 17:16	06/19/17 16:12	1
1,2-Dichloroethane-d4 (Surr)	86		70 - 134	06/15/17 17:16	06/19/17 16:12	1
Toluene-d8 (Surr)	98		75 - 124	06/15/17 17:16	06/19/17 16:12	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	☼	06/21/17 19:17	06/22/17 22:48	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-2

Client Sample ID: 2274V-04-B01 (0-2)

Lab Sample ID: 500-129676-2

Date Collected: 06/15/17 11:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
2,4,5-Trichlorophenol	<0.39		0.39	0.091	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
2-Methylnaphthalene	<0.080		0.080	0.0073	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
2-Nitrophenol	<0.39		0.39	0.094	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
2,4-Dinitrophenol	<0.80	*	0.80	0.70	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Phenanthrene	0.024	J	0.039	0.0055	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Fluoranthene	<0.039		0.039	0.0074	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Pyrene	<0.039		0.039	0.0079	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-2

Client Sample ID: 2274V-04-B01 (0-2)

Lab Sample ID: 500-129676-2

Date Collected: 06/15/17 11:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.042		0.039	0.011	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Benzo[b]fluoranthene	<0.039		0.039	0.0086	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Benzo[a]pyrene	<0.039		0.039	0.0077	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0077	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	06/21/17 19:17	06/22/17 22:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	105		46 - 133	06/21/17 19:17	06/22/17 22:48	1
Phenol-d5	92		46 - 125	06/21/17 19:17	06/22/17 22:48	1
Nitrobenzene-d5	88		41 - 120	06/21/17 19:17	06/22/17 22:48	1
2-Fluorobiphenyl	85		44 - 121	06/21/17 19:17	06/22/17 22:48	1
2,4,6-Tribromophenol	51		25 - 139	06/21/17 19:17	06/22/17 22:48	1
Terphenyl-d14	112		35 - 160	06/21/17 19:17	06/22/17 22:48	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<0.010		0.010	0.0041	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
alpha-BHC	<0.010		0.010	0.0025	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
alpha-Chlordane	<0.010		0.010	0.0050	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
beta-BHC	<0.010		0.010	0.0031	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
4,4'-DDD	<0.010		0.010	0.0020	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
4,4'-DDE	<0.010		0.010	0.0016	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
4,4'-DDT	<0.010		0.010	0.0052	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
delta-BHC	<0.010		0.010	0.0031	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
Dieldrin	<0.010		0.010	0.0014	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
Endosulfan I	<0.010		0.010	0.0043	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
Endosulfan II	<0.010		0.010	0.0016	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
Endosulfan sulfate	<0.010		0.010	0.0018	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
Endrin	<0.010		0.010	0.0014	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
Endrin aldehyde	<0.010		0.010	0.0017	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
Endrin ketone	<0.010		0.010	0.0022	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
gamma-BHC (Lindane)	<0.010		0.010	0.0022	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
gamma-Chlordane	<0.010		0.010	0.0026	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
Heptachlor	<0.010		0.010	0.0042	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
Heptachlor epoxide	<0.010		0.010	0.0035	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
Methoxychlor	<0.049		0.049	0.0019	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5
Toxaphene	<0.099		0.099	0.042	mg/Kg	☼	06/26/17 07:18	06/27/17 03:57	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	82		33 - 148	06/26/17 07:18	06/27/17 03:57	5
Tetrachloro-m-xylene	75		30 - 121	06/26/17 07:18	06/27/17 03:57	5

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-2

Client Sample ID: 2274V-04-B01 (0-2)

Lab Sample ID: 500-129676-2

Date Collected: 06/15/17 11:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 81.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.020		0.020	0.0070	mg/Kg	☼	06/26/17 07:18	06/27/17 07:39	1
PCB-1221	<0.020		0.020	0.0087	mg/Kg	☼	06/26/17 07:18	06/27/17 07:39	1
PCB-1232	<0.020		0.020	0.0086	mg/Kg	☼	06/26/17 07:18	06/27/17 07:39	1
PCB-1242	<0.020		0.020	0.0065	mg/Kg	☼	06/26/17 07:18	06/27/17 07:39	1
PCB-1248	<0.020		0.020	0.0078	mg/Kg	☼	06/26/17 07:18	06/27/17 07:39	1
PCB-1254	<0.020		0.020	0.0043	mg/Kg	☼	06/26/17 07:18	06/27/17 07:39	1
PCB-1260	<0.020		0.020	0.0097	mg/Kg	☼	06/26/17 07:18	06/27/17 07:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	94		49 - 129	06/26/17 07:18	06/27/17 07:39	1
DCB Decachlorobiphenyl	98		37 - 121	06/26/17 07:18	06/27/17 07:39	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dicamba	<0.39		0.39	0.082	mg/Kg	☼	06/19/17 14:26	06/22/17 19:53	10
Dichlorprop	<0.39		0.39	0.11	mg/Kg	☼	06/19/17 14:26	06/22/17 19:53	10
2,4-D	<0.39		0.39	0.11	mg/Kg	☼	06/19/17 14:26	06/22/17 19:53	10
Silvex (2,4,5-TP)	<0.39		0.39	0.10	mg/Kg	☼	06/19/17 14:26	06/22/17 19:53	10
2,4,5-T	<0.39		0.39	0.096	mg/Kg	☼	06/19/17 14:26	06/22/17 19:53	10
2,4-DB	<0.39		0.39	0.12	mg/Kg	☼	06/19/17 14:26	06/22/17 19:53	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCAA	59		25 - 120	06/19/17 14:26	06/22/17 19:53	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Arsenic	11		0.53	0.18	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Barium	18		0.53	0.061	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Beryllium	0.34		0.21	0.050	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Boron	8.6		2.7	0.25	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Cadmium	0.14		0.11	0.019	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Calcium	82000	B	110	18	mg/Kg	☼	06/23/17 10:07	06/26/17 11:18	10
Chromium	9.0		0.53	0.26	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Cobalt	14		0.27	0.070	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Copper	30		0.53	0.15	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Iron	18000	B	11	5.5	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Lead	15		0.27	0.12	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Magnesium	38000	B	5.3	2.6	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Manganese	380	B	0.53	0.077	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Nickel	28		0.53	0.15	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Potassium	1700		27	9.4	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Selenium	0.90		0.53	0.31	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Silver	<0.27		0.27	0.069	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Sodium	470		53	7.9	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Thallium	0.76		0.53	0.27	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Vanadium	11		0.27	0.063	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1
Zinc	54	B	1.1	0.47	mg/Kg	☼	06/23/17 10:07	06/24/17 18:52	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-2

Client Sample ID: 2274V-04-B01 (0-2)

Lab Sample ID: 500-129676-2

Date Collected: 06/15/17 11:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 81.6

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.23	J	0.50	0.050	mg/L	-	06/21/17 10:30	06/21/17 20:50	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/21/17 10:30	06/21/17 20:50	1
Boron	0.089	J B	0.50	0.050	mg/L	-	06/21/17 10:30	06/21/17 20:50	1
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	06/21/17 10:30	06/21/17 20:50	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 20:50	1
Cobalt	0.055		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 20:50	1
Iron	<0.40	*	0.40	0.20	mg/L	-	06/21/17 10:30	06/21/17 20:50	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/21/17 10:30	06/21/17 20:50	1
Manganese	2.7		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 20:50	1
Nickel	0.11		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 20:50	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/21/17 10:30	06/21/17 20:50	1
Silver	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 20:50	1
Zinc	0.027	J ^	0.50	0.020	mg/L	-	06/21/17 10:30	06/21/17 20:50	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.053		0.025	0.010	mg/L	-	06/22/17 07:36	06/23/17 00:56	1
Nickel	<0.025		0.025	0.010	mg/L	-	06/22/17 07:36	06/23/17 00:56	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	-	06/21/17 10:30	06/23/17 14:42	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/21/17 10:30	06/23/17 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	-	06/21/17 11:45	06/22/17 10:23	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.048	B	0.020	0.0068	mg/Kg	☼	06/21/17 08:00	06/21/17 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.2	0.2	SU	-		06/28/17 11:50	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-2

Qualifiers

GC/MS Semi VOA

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

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-2

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/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 #: 500-291676
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 3.4, 5.6

Client		Client Project #		Preservative		Parameter										Preservative Key		
E+E		100934L0015.02														1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other		
Project Name		Lab Project #																
176-001-W015																		
Project Location/State		Lab Project #																
Crestwood, IL																		
Sampler		Lab PM																
EF, JH		D. Wright																
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOC	SVOC	Total/TCCLP Metals	Pesticides/Herbicides	PCBs	PH/Percent Solids					Comments	
			Date	Time														
2		2274V-04-B01 (0-2)	6/15/17	1155	5	S	X	X	X	X	X	X						

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other
 Requested Due Date _____

Sample Disposal
 Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Requisitioned By: <u>[Signature]</u> Company: <u>E+E</u> Date: <u>6/15/17</u> Time: <u>1530</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/15/17</u> Time: <u>1830</u>	Lab Courier: <u>JA</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/15/17</u> Time: <u>1625</u>	Received By: <u>[Signature]</u> Company: <u>TACHI</u> Date: <u>6/15/17</u> Time: <u>1625</u>	Shipped: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: _____

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

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-129676-2

Login Number: 129676

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	3.4, 5.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 500-129768-1
Client Project/Site: IDOT - IL 83 - WO 015

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/30/2017 11:51:47 AM

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

LINKS

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results through
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www.testamericainc.com

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-1

Job ID: 500-129768-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-129768-1

Receipt

The samples were received on 6/16/2017 4:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 4.5° C. Per communication with Ecology and Environment, pesticides and herbicides were logged in for sample 1.

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 500-390790 had 1 analyte outside control limits: 2,4-Dinitrophenol. 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.

GC Semi VOA

Method(s) 8081B: The following sample was diluted due to the nature of the sample matrix: 2274V-04-B02 (0-2) (500-129768-1). 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.

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 83 - WO 015

TestAmerica Job ID: 500-129768-1

Client Sample ID: 2274V-04-B02 (0-2)

Lab Sample ID: 500-129768-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0067	J	0.038	0.0050	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0085	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.16		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.029	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.49		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.43		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.21		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.27		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.097	J	0.19	0.069	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.36		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.12		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.23		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.11		0.038	0.0099	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.039		0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.11		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
4,4'-DDE	0.013		0.010	0.0016	mg/Kg	5	☼	8081B	Total/NA
4,4'-DDT	0.0089	J	0.010	0.0052	mg/Kg	5	☼	8081B	Total/NA
PCB-1254	0.11		0.020	0.0042	mg/Kg	1	☼	8082A	Total/NA
Antimony	0.24	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	6.8		0.50	0.17	mg/Kg	1	☼	6010B	Total/NA
Barium	74		0.54	0.061	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.57		0.22	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	2.8		2.5	0.23	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.71	B	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	22000	B	11	1.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	19		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	10		0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Copper	22		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	17000		11	5.6	mg/Kg	1	☼	6010B	Total/NA
Lead	32		0.25	0.11	mg/Kg	1	☼	6010B	Total/NA
Magnesium	21000	B	5.0	2.5	mg/Kg	1	☼	6010B	Total/NA
Manganese	370		0.50	0.072	mg/Kg	1	☼	6010B	Total/NA
Nickel	25		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1600		27	9.5	mg/Kg	1	☼	6010B	Total/NA
Silver	0.081	J	0.27	0.069	mg/Kg	1	☼	6010B	Total/NA
Sodium	240		54	8.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	92		1.1	0.47	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0065		0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.32		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.071	J	0.50	0.020	mg/L	1		6010B	TCLP
Cadmium	0.0025	J	0.0050	0.0020	mg/L	1		6010B	SPLP East
Manganese	0.43		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.073	B	0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	8.0		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 83 - WO 015

TestAmerica Job ID: 500-129768-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-129768-1	2274V-04-B02 (0-2)	Solid	06/16/17 11:20	06/16/17 16:00

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-1

Client Sample ID: 2274V-04-B02 (0-2)

Lab Sample ID: 500-129768-1

Date Collected: 06/16/17 11:20

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0083	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Bromoform	<0.0019		0.0019	0.00056	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
2-Butanone (MEK)	<0.0048		0.0048	0.0021	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Carbon disulfide	<0.0048		0.0048	0.00099	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Carbon tetrachloride	<0.0019		0.0019	0.00055	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Chlorobenzene	<0.0019		0.0019	0.00070	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Chloroethane	<0.0048		0.0048	0.0014	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Chloroform	<0.0019		0.0019	0.00066	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00053	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00057	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Dibromochloromethane	<0.0019		0.0019	0.00062	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
1,1-Dichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
1,1-Dichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
1,2-Dichloropropane	<0.0019		0.0019	0.00049	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00067	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Ethylbenzene	<0.0019		0.0019	0.00091	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00056	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Styrene	<0.0019		0.0019	0.00057	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
1,1,1,2-Tetrachloroethane	<0.0019		0.0019	0.00061	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Tetrachloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Toluene	<0.0019		0.0019	0.00048	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00084	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00067	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00082	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Trichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Vinyl acetate	<0.0048		0.0048	0.0017	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Vinyl chloride	<0.0019		0.0019	0.00084	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1
Xylenes, Total	<0.0038		0.0038	0.00061	mg/Kg	☼	06/16/17 17:21	06/21/17 18:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		75 - 131	06/16/17 17:21	06/21/17 18:14	1
Dibromofluoromethane	94		75 - 126	06/16/17 17:21	06/21/17 18:14	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 134	06/16/17 17:21	06/21/17 18:14	1
Toluene-d8 (Surr)	87		75 - 124	06/16/17 17:21	06/21/17 18:14	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	☼	06/25/17 19:26	06/26/17 15:35	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-1

Client Sample ID: 2274V-04-B02 (0-2)

Lab Sample ID: 500-129768-1

Date Collected: 06/16/17 11:20

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.046	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
2-Methylnaphthalene	<0.077		0.077	0.0070	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
2,4-Dinitrophenol	<0.77	*	0.77	0.67	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Acenaphthylene	0.0067	J	0.038	0.0050	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Fluorene	0.0085	J	0.038	0.0053	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Phenanthrene	0.16		0.038	0.0053	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Anthracene	0.029	J	0.038	0.0064	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Fluoranthene	0.49		0.038	0.0071	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Pyrene	0.43		0.038	0.0076	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Benzo[a]anthracene	0.21		0.038	0.0051	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-1

Client Sample ID: 2274V-04-B02 (0-2)

Lab Sample ID: 500-129768-1

Date Collected: 06/16/17 11:20

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.27		0.038	0.010	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Bis(2-ethylhexyl) phthalate	0.097	J	0.19	0.069	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Benzo[b]fluoranthene	0.36		0.038	0.0082	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Benzo[k]fluoranthene	0.12		0.038	0.011	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Benzo[a]pyrene	0.23		0.038	0.0074	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Indeno[1,2,3-cd]pyrene	0.11		0.038	0.0099	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Dibenz(a,h)anthracene	0.039		0.038	0.0073	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
Benzo[g,h,i]perylene	0.11		0.038	0.012	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/25/17 19:26	06/26/17 15:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	102		46 - 133	06/25/17 19:26	06/26/17 15:35	1
Phenol-d5	96		46 - 125	06/25/17 19:26	06/26/17 15:35	1
Nitrobenzene-d5	81		41 - 120	06/25/17 19:26	06/26/17 15:35	1
2-Fluorobiphenyl	86		44 - 121	06/25/17 19:26	06/26/17 15:35	1
2,4,6-Tribromophenol	85		25 - 139	06/25/17 19:26	06/26/17 15:35	1
Terphenyl-d14	108		35 - 160	06/25/17 19:26	06/26/17 15:35	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<0.010		0.010	0.0041	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
alpha-BHC	<0.010		0.010	0.0025	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
alpha-Chlordane	<0.010		0.010	0.0050	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
beta-BHC	<0.010		0.010	0.0031	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
4,4'-DDD	<0.010		0.010	0.0020	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
4,4'-DDE	0.013		0.010	0.0016	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
4,4'-DDT	0.0089	J	0.010	0.0052	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
delta-BHC	<0.010		0.010	0.0031	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
Dieldrin	<0.010		0.010	0.0013	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
Endosulfan I	<0.010		0.010	0.0043	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
Endosulfan II	<0.010		0.010	0.0016	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
Endosulfan sulfate	<0.010		0.010	0.0018	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
Endrin	<0.010		0.010	0.0014	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
Endrin aldehyde	<0.010		0.010	0.0017	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
Endrin ketone	<0.010		0.010	0.0022	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
gamma-BHC (Lindane)	<0.010		0.010	0.0021	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
gamma-Chlordane	<0.010		0.010	0.0026	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
Heptachlor	<0.010		0.010	0.0041	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
Heptachlor epoxide	<0.010		0.010	0.0035	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
Methoxychlor	<0.049		0.049	0.0019	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5
Toxaphene	<0.098		0.098	0.041	mg/Kg	☼	06/26/17 16:48	06/27/17 22:13	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	109		33 - 148	06/26/17 16:48	06/27/17 22:13	5
Tetrachloro-m-xylene	105		30 - 121	06/26/17 16:48	06/27/17 22:13	5

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-1

Client Sample ID: 2274V-04-B02 (0-2)

Lab Sample ID: 500-129768-1

Date Collected: 06/16/17 11:20

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.020		0.020	0.0070	mg/Kg	☼	06/26/17 16:48	06/27/17 18:26	1
PCB-1221	<0.020		0.020	0.0087	mg/Kg	☼	06/26/17 16:48	06/27/17 18:26	1
PCB-1232	<0.020		0.020	0.0086	mg/Kg	☼	06/26/17 16:48	06/27/17 18:26	1
PCB-1242	<0.020		0.020	0.0065	mg/Kg	☼	06/26/17 16:48	06/27/17 18:26	1
PCB-1248	<0.020		0.020	0.0077	mg/Kg	☼	06/26/17 16:48	06/27/17 18:26	1
PCB-1254	0.11		0.020	0.0042	mg/Kg	☼	06/26/17 16:48	06/27/17 18:26	1
PCB-1260	<0.020		0.020	0.0097	mg/Kg	☼	06/26/17 16:48	06/27/17 18:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	86		49 - 129	06/26/17 16:48	06/27/17 18:26	1
<i>DCB Decachlorobiphenyl</i>	92		37 - 121	06/26/17 16:48	06/27/17 18:26	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dicamba	<0.38		0.38	0.080	mg/Kg	☼	06/19/17 14:26	06/22/17 20:17	10
Dichlorprop	<0.38		0.38	0.10	mg/Kg	☼	06/19/17 14:26	06/22/17 20:17	10
2,4-D	<0.38		0.38	0.11	mg/Kg	☼	06/19/17 14:26	06/22/17 20:17	10
Silvex (2,4,5-TP)	<0.38		0.38	0.099	mg/Kg	☼	06/19/17 14:26	06/22/17 20:17	10
2,4,5-T	<0.38		0.38	0.094	mg/Kg	☼	06/19/17 14:26	06/22/17 20:17	10
2,4-DB	<0.38		0.38	0.11	mg/Kg	☼	06/19/17 14:26	06/22/17 20:17	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCAA	58		25 - 120	06/19/17 14:26	06/22/17 20:17	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.24	J	1.1	0.21	mg/Kg	☼	06/26/17 10:16	06/26/17 20:31	1
Arsenic	6.8		0.50	0.17	mg/Kg	☼	06/27/17 09:39	06/27/17 17:51	1
Barium	74		0.54	0.061	mg/Kg	☼	06/26/17 10:16	06/26/17 20:31	1
Beryllium	0.57		0.22	0.050	mg/Kg	☼	06/26/17 10:16	06/26/17 20:31	1
Boron	2.8		2.5	0.23	mg/Kg	☼	06/27/17 09:39	06/27/17 17:51	1
Cadmium	0.71	B	0.11	0.019	mg/Kg	☼	06/26/17 10:16	06/26/17 20:31	1
Calcium	22000	B	11	1.8	mg/Kg	☼	06/26/17 10:16	06/26/17 20:31	1
Chromium	19		0.54	0.27	mg/Kg	☼	06/26/17 10:16	06/26/17 20:31	1
Cobalt	10		0.27	0.071	mg/Kg	☼	06/26/17 10:16	06/26/17 20:31	1
Copper	22		0.54	0.15	mg/Kg	☼	06/26/17 10:16	06/26/17 20:31	1
Iron	17000		11	5.6	mg/Kg	☼	06/26/17 10:16	06/26/17 20:31	1
Lead	32		0.25	0.11	mg/Kg	☼	06/27/17 09:39	06/27/17 17:51	1
Magnesium	21000	B	5.0	2.5	mg/Kg	☼	06/27/17 09:39	06/27/17 17:51	1
Manganese	370		0.50	0.072	mg/Kg	☼	06/27/17 09:39	06/27/17 17:51	1
Nickel	25		0.54	0.16	mg/Kg	☼	06/26/17 10:16	06/26/17 20:31	1
Potassium	1600		27	9.5	mg/Kg	☼	06/26/17 10:16	06/26/17 20:31	1
Selenium	<0.50		0.50	0.29	mg/Kg	☼	06/27/17 09:39	06/27/17 17:51	1
Silver	0.081	J	0.27	0.069	mg/Kg	☼	06/26/17 10:16	06/26/17 20:31	1
Sodium	240		54	8.0	mg/Kg	☼	06/26/17 10:16	06/26/17 20:31	1
Thallium	<0.50		0.50	0.25	mg/Kg	☼	06/27/17 09:39	06/27/17 17:51	1
Vanadium	18		0.27	0.064	mg/Kg	☼	06/26/17 10:16	06/26/17 20:31	1
Zinc	92		1.1	0.47	mg/Kg	☼	06/26/17 10:16	06/26/17 20:31	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-1

Client Sample ID: 2274V-04-B02 (0-2)

Lab Sample ID: 500-129768-1

Date Collected: 06/16/17 11:20

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.9

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		06/23/17 07:08	06/24/17 00:25	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/23/17 07:08	06/24/17 00:25	1
Boron	0.11	J B	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 00:25	1
Cadmium	0.0065		0.0050	0.0020	mg/L		06/23/17 07:08	06/24/17 00:25	1
Chromium	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:25	1
Cobalt	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:25	1
Iron	<0.40		0.40	0.20	mg/L		06/23/17 07:08	06/24/17 00:25	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/23/17 07:08	06/24/17 00:25	1
Manganese	0.32		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:25	1
Nickel	0.013	J	0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:25	1
Selenium	<0.050		0.050	0.020	mg/L		06/23/17 07:08	06/24/17 00:25	1
Silver	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:25	1
Zinc	0.071	J	0.50	0.020	mg/L		06/23/17 07:08	06/24/17 00:25	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0025	J	0.0050	0.0020	mg/L		06/23/17 07:12	06/25/17 00:19	1
Manganese	0.43		0.025	0.010	mg/L		06/23/17 07:12	06/25/17 00:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		06/23/17 07:08	06/23/17 17:56	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/23/17 07:08	06/23/17 17:56	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		06/22/17 10:29	06/23/17 10:07	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.073	B	0.018	0.0059	mg/Kg	☼	06/21/17 08:00	06/21/17 12:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.0		0.2	0.2	SU			06/29/17 15:35	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-1

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.

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-1

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/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

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 #: 500-129768
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 3.4145

Client		Client Project #		Preservative		Parameter		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix	
E+E		1009341.0015.02						VOC		SVOC		Total/TLP		Metals		pH/Percent Solids		PCB		Pesticide/Herbicide	
Project Name		Project Location/State		Lab Project #		Sampling		# of Containers		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix	
176-001-W015		Crestwood, IL		R. Wright		Date Time															
Sampler		Lab PM																			
EF, JH		R. Wright																			
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix
1		2274V-04-B02(CO-2)	6/16/17	1120	5	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X



500-129768 COC

- Preservative Key
1. HCL, Cool to 4°
 2. H2SO4, Cool to 4°
 3. HNO3, Cool to 4°
 4. NaOH, Cool to 4°
 5. NaOH/Zn, Cool to 4°
 6. NaHSO4
 7. Cool to 4°
 8. None
 9. Other

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other
 Requested Due Date _____

Sample Disposal
 Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>[Signature]</u> Company: <u>E+E</u> Date: <u>6/16/17</u> Time: <u>1510</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/16/17</u> Time: <u>1510</u>	Lab Courier: <u>TA</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/16/17</u> Time: <u>1600</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/16/17</u> Time: <u>1600</u>	Shipped: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: _____

Matrix Key

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

Client Comments: _____
 Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-129768-1

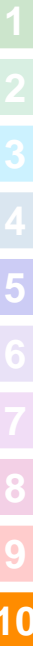
Login Number: 129768

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	3.4, 4.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 500-143305-1
Client Project/Site: IDOT - IL 83 - WO 015B

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

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
4/16/2018 5:06:46 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

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results through
TotalAccess

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www.testamericainc.com

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-1

Job ID: 500-143305-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-143305-1

Receipt

The samples were received on 4/4/2018 3:53 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.9° C.

GC/MS VOA

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

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid and/or one base surrogate outside acceptance limits: 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. 2274V-04-B03 (0-2) (500-143305-1).

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

GC Semi VOA

Method(s) 8081B: The following samples were diluted due to the nature of the sample matrix: 2274V-04-B03 (0-2) (500-143305-1), (500-143305-E-1-O MS) and (500-143305-E-1-P MSD). 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.

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 83 - WO 015B

TestAmerica Job ID: 500-143305-1

Client Sample ID: 2274V-04-B03 (0-2)

Lab Sample ID: 500-143305-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0097	J	0.018	0.0079	mg/Kg	1	☼	8260B	Total/NA
Acenaphthene	0.015	J	0.039	0.0070	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.067		0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.010	J	0.039	0.0072	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.042		0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.040		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Arsenic	9.9	F1	0.61	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	26		0.61	0.069	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.57		0.24	0.057	mg/Kg	1	☼	6010B	Total/NA
Boron	10		3.0	0.28	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.25	B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Calcium	89000	B	120	21	mg/Kg	10	☼	6010B	Total/NA
Chromium	11		0.61	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	15		0.30	0.079	mg/Kg	1	☼	6010B	Total/NA
Copper	31		0.61	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	19000	B	12	6.3	mg/Kg	1	☼	6010B	Total/NA
Lead	17		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	35000		6.1	3.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	380		0.61	0.088	mg/Kg	1	☼	6010B	Total/NA
Nickel	32		0.61	0.18	mg/Kg	1	☼	6010B	Total/NA
Potassium	2000	F1	30	11	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.86	F1 B	0.61	0.36	mg/Kg	1	☼	6010B	Total/NA
Silver	0.21	J	0.30	0.078	mg/Kg	1	☼	6010B	Total/NA
Sodium	160		61	9.0	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.54	J	0.61	0.30	mg/Kg	1	☼	6010B	Total/NA
Vanadium	13		0.30	0.072	mg/Kg	1	☼	6010B	Total/NA
Zinc	53		1.2	0.53	mg/Kg	1	☼	6010B	Total/NA
Barium	0.32	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.055	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0024	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.057		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.8		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.12	B	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.025	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.065		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.032		0.020	0.0067	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 83 - WO 015B

TestAmerica Job ID: 500-143305-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-143305-1	2274V-04-B03 (0-2)	Solid	04/04/18 10:30	04/04/18 15:53

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-1

Client Sample ID: 2274V-04-B03 (0-2)

Lab Sample ID: 500-143305-1

Date Collected: 04/04/18 10:30

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0097	J	0.018	0.0079	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Carbon disulfide	<0.0045		0.0045	0.00094	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Chlorobenzene	<0.0018		0.0018	0.00067	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Ethylbenzene	<0.0018		0.0018	0.00087	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00078	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Vinyl acetate	<0.0045		0.0045	0.0016	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Vinyl chloride	<0.0018		0.0018	0.00080	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 13:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		75 - 131	04/04/18 17:00	04/05/18 13:35	1
Dibromofluoromethane	106		75 - 126	04/04/18 17:00	04/05/18 13:35	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	04/04/18 17:00	04/05/18 13:35	1
Toluene-d8 (Surr)	112		75 - 124	04/04/18 17:00	04/05/18 13:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.086	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-1

Client Sample ID: 2274V-04-B03 (0-2)

Lab Sample ID: 500-143305-1

Date Collected: 04/04/18 10:30

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
2-Methylphenol	<0.20		0.20	0.062	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.048	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
2-Chlorophenol	<0.20		0.20	0.066	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
2,4-Dichlorophenol	<0.39		0.39	0.092	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
2-Methylnaphthalene	<0.078		0.078	0.0072	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
2,6-Dinitrotoluene	<0.20		0.20	0.076	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
2,4-Dinitrophenol	<0.78		0.78	0.69	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Acenaphthene	0.015	J	0.039	0.0070	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Phenanthrene	0.067		0.039	0.0054	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Fluoranthene	0.010	J	0.039	0.0072	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Pyrene	0.042		0.039	0.0077	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Benzo[a]anthracene	<0.039		0.039	0.0052	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-1

Client Sample ID: 2274V-04-B03 (0-2)

Lab Sample ID: 500-143305-1

Date Collected: 04/04/18 10:30

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.040		0.039	0.011	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.054	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Di-n-octyl phthalate	<0.20		0.20	0.063	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Benzo[a]pyrene	<0.039		0.039	0.0075	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	04/09/18 07:26	04/10/18 18:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	123		46 - 133	04/09/18 07:26	04/10/18 18:31	1
Phenol-d5	129	X	46 - 125	04/09/18 07:26	04/10/18 18:31	1
Nitrobenzene-d5	124	X	41 - 120	04/09/18 07:26	04/10/18 18:31	1
2-Fluorobiphenyl	114		44 - 121	04/09/18 07:26	04/10/18 18:31	1
2,4,6-Tribromophenol	76		25 - 139	04/09/18 07:26	04/10/18 18:31	1
Terphenyl-d14	119		35 - 160	04/09/18 07:26	04/10/18 18:31	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<0.010		0.010	0.0041	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
alpha-BHC	<0.010		0.010	0.0025	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
cis-Chlordane	<0.010		0.010	0.0050	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
beta-BHC	<0.010	F1	0.010	0.0030	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
4,4'-DDD	<0.010		0.010	0.0020	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
4,4'-DDE	<0.010		0.010	0.0016	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
4,4'-DDT	<0.010		0.010	0.0052	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
delta-BHC	<0.010		0.010	0.0031	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
Dieldrin	<0.010		0.010	0.0013	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
Endosulfan I	<0.010		0.010	0.0043	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
Endosulfan II	<0.010		0.010	0.0016	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
Endosulfan sulfate	<0.010		0.010	0.0018	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
Endrin	<0.010		0.010	0.0014	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
Endrin aldehyde	<0.010	F1	0.010	0.0016	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
Endrin ketone	<0.010		0.010	0.0022	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
gamma-BHC (Lindane)	<0.010		0.010	0.0021	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
trans-Chlordane	<0.010		0.010	0.0026	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
Heptachlor	<0.010		0.010	0.0041	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
Heptachlor epoxide	<0.010		0.010	0.0035	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
Methoxychlor	<0.049		0.049	0.0019	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5
Toxaphene	<0.098		0.098	0.041	mg/Kg	☼	04/09/18 07:21	04/10/18 16:34	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	61		33 - 148	04/09/18 07:21	04/10/18 16:34	5
Tetrachloro-m-xylene	70		30 - 121	04/09/18 07:21	04/10/18 16:34	5

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-1

Client Sample ID: 2274V-04-B03 (0-2)

Lab Sample ID: 500-143305-1

Date Collected: 04/04/18 10:30

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 80.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.020		0.020	0.0069	mg/Kg	☼	04/09/18 07:21	04/09/18 14:58	1
PCB-1221	<0.020		0.020	0.0086	mg/Kg	☼	04/09/18 07:21	04/09/18 14:58	1
PCB-1232	<0.020		0.020	0.0085	mg/Kg	☼	04/09/18 07:21	04/09/18 14:58	1
PCB-1242	<0.020		0.020	0.0064	mg/Kg	☼	04/09/18 07:21	04/09/18 14:58	1
PCB-1248	<0.020		0.020	0.0077	mg/Kg	☼	04/09/18 07:21	04/09/18 14:58	1
PCB-1254	<0.020		0.020	0.0042	mg/Kg	☼	04/09/18 07:21	04/09/18 14:58	1
PCB-1260	<0.020		0.020	0.0096	mg/Kg	☼	04/09/18 07:21	04/09/18 14:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	86		49 - 129	04/09/18 07:21	04/09/18 14:58	1
DCB Decachlorobiphenyl	76		37 - 121	04/09/18 07:21	04/09/18 14:58	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dicamba	<0.40		0.40	0.084	mg/Kg	☼	04/05/18 08:02	04/07/18 08:59	10
Dichlorprop	<0.40		0.40	0.11	mg/Kg	☼	04/05/18 08:02	04/07/18 08:59	10
2,4-D	<0.40		0.40	0.11	mg/Kg	☼	04/05/18 08:02	04/07/18 08:59	10
Silvex (2,4,5-TP)	<0.40		0.40	0.10	mg/Kg	☼	04/05/18 08:02	04/07/18 08:59	10
2,4,5-T	<0.40		0.40	0.099	mg/Kg	☼	04/05/18 08:02	04/07/18 08:59	10
2,4-DB	<0.40		0.40	0.12	mg/Kg	☼	04/05/18 08:02	04/07/18 08:59	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCAA	35		25 - 120	04/05/18 08:02	04/07/18 08:59	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2	F1	1.2	0.24	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Arsenic	9.9	F1	0.61	0.21	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Barium	26		0.61	0.069	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Beryllium	0.57		0.24	0.057	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Boron	10		3.0	0.28	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Cadmium	0.25	B	0.12	0.022	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Calcium	89000	B	120	21	mg/Kg	☼	04/05/18 15:52	04/09/18 20:41	10
Chromium	11		0.61	0.30	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Cobalt	15		0.30	0.079	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Copper	31		0.61	0.17	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Iron	19000	B	12	6.3	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Lead	17		0.30	0.14	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Magnesium	35000		6.1	3.0	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Manganese	380		0.61	0.088	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Nickel	32		0.61	0.18	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Potassium	2000	F1	30	11	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Selenium	0.86	F1 B	0.61	0.36	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Silver	0.21	J	0.30	0.078	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Sodium	160		61	9.0	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Thallium	0.54	J	0.61	0.30	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Vanadium	13		0.30	0.072	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1
Zinc	53		1.2	0.53	mg/Kg	☼	04/05/18 15:52	04/06/18 18:23	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-1

Client Sample ID: 2274V-04-B03 (0-2)

Lab Sample ID: 500-143305-1

Date Collected: 04/04/18 10:30

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 80.7

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		04/06/18 14:21	04/09/18 18:53	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/06/18 14:21	04/09/18 18:53	1
Boron	0.055	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 18:53	1
Cadmium	0.0024	J	0.0050	0.0020	mg/L		04/06/18 14:21	04/09/18 18:53	1
Chromium	<0.025		0.025	0.010	mg/L		04/06/18 14:21	04/09/18 18:53	1
Cobalt	0.057		0.025	0.010	mg/L		04/06/18 14:21	04/09/18 18:53	1
Iron	<0.40		0.40	0.20	mg/L		04/06/18 14:21	04/09/18 18:53	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/06/18 14:21	04/09/18 18:53	1
Manganese	2.8		0.025	0.010	mg/L		04/06/18 14:21	04/09/18 18:53	1
Nickel	0.12	B	0.025	0.010	mg/L		04/06/18 14:21	04/09/18 18:53	1
Selenium	<0.050		0.050	0.020	mg/L		04/06/18 14:21	04/09/18 18:53	1
Silver	<0.025		0.025	0.010	mg/L		04/06/18 14:21	04/09/18 18:53	1
Zinc	0.025	J	0.50	0.020	mg/L		04/06/18 14:21	04/09/18 18:53	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.065		0.025	0.010	mg/L		04/06/18 14:20	04/10/18 06:00	1
Nickel	<0.025		0.025	0.010	mg/L		04/06/18 14:20	04/10/18 06:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/06/18 14:21	04/10/18 14:24	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/06/18 14:21	04/10/18 14:24	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/06/18 13:02	04/09/18 08:24	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032		0.020	0.0067	mg/Kg	☼	04/05/18 14:15	04/06/18 09:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.2	0.2	SU			04/13/18 16:20	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-1

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/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 #: 500-143305
 Chain of Custody Number: E1915B-01
 Page _____ of _____
 Temperature °C of Cooler: 4.9

Client		Client Project #		Preservative		Parameter								Preservative Key	
EE		1004840-0015-03												1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #		Sampling		# of Containers		Matrix						Comments	
176-001-15B		50013464		Date Time											
Project Location/State		Lab PM													
Cook County, IL		D. Wright													
Sampler															
S. Cooper															
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix									
1		2274V-04-1303(0-2)	4/4/18	1030	2 SE		VOC								
							SPEC								
							TOTAL TAC								
							metals								
							TUAPISPP								
							TAC metals								
							PAH/6 Solids								
							Pest/Herb								
							PCB								

Handwritten signature and number 4418

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: <i>[Signature]</i>	Company: EE	Date: 4-4-18	Time: 1515	Received By: <i>[Signature]</i>	Company: TA	Date: 4/4/18	Time: 1515
Relinquished By: <i>[Signature]</i>	Company: TA	Date: 4/4/18	Time: 1553	Received By: <i>[Signature]</i>	Company: TA	Date: 04/04/18	Time: 1553

Lab Courier:
 Shipped:
 Hand Delivered:

Matrix Key

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

Client Comments

Lab Comments

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-143305-1

Login Number: 143305

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.9c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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

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

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

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

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

I. Source Location Information

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

Project Name: FAP 344 (Illinois Route 83) Office Phone Number, if available: _____

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

5300 block of W. 127th Street (ISGS #2274V-5)

City: Crestwood State: IL Zip Code: 60445

County: Cook Township: Worth

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

Latitude: 41.66128 Longitude: -87.75122

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Tyler Petersen

Contact: Tyler Petersen

Email, if available: Tyler.Petersen@illinois.gov

Email, if available: Tyler.Petersen@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 344 (Illinois Route 83)

Latitude: 41.66128 Longitude: -87.75122

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 2274V-05-B02 was sampled within the construction zone adjacent to ISGS #2274V-5 (Vacant Land). Refer to PSI Report for ISGS #2274V-5 (Vacant Land) including Table 4-3, and Figures 4-2 and 4-4.

- 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 J129676-5.

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

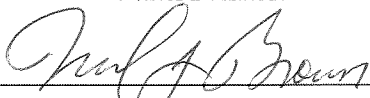
I, Neil J. Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental 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:

5/14/18

Date:







Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15B

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 or not applicable.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.
- PID = Photoionization detector.
- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

- # = pH is less than 6.25 or greater than 9.0 standard units.
- ** = Headspace reading above background (outside of instrument margin of error).
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Headspace reading exceeds background levels
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

**PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15A
CONTAMINANTS OF CONCERN**

SITE	ISGS #2274V-5 (Vacant Land)	Comparison Criteria					
BORING	2274V-05-B02	MACs			TACO		
SAMPLE	2274V-05-B02 (0-1)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil						
DEPTH (feet)	0-1						
pH	7.5						
VOCs (None Detected)							
SVOCs (mg/kg)							
2-Methylnaphthalene	0.0091 J	--	--	--	--	--	--
Acenaphthene	0.016 J	570	--	--	4,700	120,000	--
Acenaphthylene	0.014 J	--	--	--	--	--	--
Anthracene	0.082	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.63	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.76 †	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	1.6 ††	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.34	--	--	--	--	--	--
Benzo(k)fluoranthene	0.67	9	--	--	9	1,700	--
Bis(2-ethylhexyl) phthalate	0.21	46	--	--	46	4,100	--
Chrysene	0.94	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.083	0.09	0.42	0.2	0.42	17	--
Fluoranthene	1.6	3,100	--	--	3,100	82,000	--
Fluorene	0.018 J	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.30	0.9	1.6	0.9	1.6	170	--
Naphthalene	0.0097 J	1.8	--	--	170	1.8	--
Phenanthrene	0.49	--	--	--	--	--	--
Pyrene	1.2	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)							
Antimony	0.24 J	5	--	--	31	82	--
Arsenic	5.9	11.3	13	--	13	61	--
Barium	47	1,500	--	--	5,500	14,000	--
Beryllium	0.40	22	--	--	160	410	--
Boron	7.9	40	--	--	16,000	41,000	--
Cadmium	0.66	5.2	--	--	78	200	--
Calcium	89,000	--	--	--	--	--	--
Chromium	20	21	--	--	230	690	--
Cobalt	8.7	20	--	--	4,700	12,000	--
Copper	29	2,900	--	--	2,900	8,200	--
Iron	15,000	15,000	15,900	--	--	--	--
Lead	91	107	--	--	400	700	--
Magnesium	30,000	325,000	--	--	--	730,000	--
Manganese	400	630	636	--	1,600	4,100	--
Nickel	20	100	--	--	1,600	4,100	--
Potassium	1,500	--	--	--	--	--	--
Selenium	0.69	1.3	--	--	390	1,000	--
Sodium	120	--	--	--	--	--	--
Vanadium	17	550	--	--	550	1,400	--
Zinc	220	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)							
Barium	0.33 J	--	--	--	--	--	2
Cadmium	0.0043 J	--	--	--	--	--	0.005
Manganese	0.21 L	--	--	--	--	--	0.15
Nickel	0.011 J	--	--	--	--	--	0.1
Zinc	0.32 J	--	--	--	--	--	5
SPLP Metals (mg/L)							
Manganese	0.11	--	--	--	--	--	0.15

TestAmerica

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ANALYTICAL REPORT

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

TestAmerica Job ID: 500-129676-5
Client Project/Site: IDOT - IL 83 - WO 015

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/29/2017 4:40:57 PM

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

LINKS

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-5

Job ID: 500-129676-5

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-129676-5

Comments

No additional comments.

Receipt

The samples were received on 6/15/2017 4:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 5.6° 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 500-390387 had 1 analyte outside control limits: 2,4-Dinitrophenol. These results have been reported and qualified. (LCS 500-390387/2-A)

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

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

Metals

Method(s) 6010B: The continuing calibration verification (CCV) associated with batch 500-390443 recovered above the upper control limit for Zinc. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: 2274V-05-B02 (0-1) (500-129676-15), 2274V-05-B01 (0-1) (500-129676-16) and (500-129676-E-20-D).

Method(s) 6010B: The laboratory control sample (LCS) for preparation batch 500-390154 and 500-390310 and analytical batch 500-390443 recovered outside control limits for the following analyte: Iron. The analyte was biased high in the LCS and were not detected in the associated samples 2274V-05-B02 (0-1) (500-129676-15), 2274V-05-B01 (0-1) (500-129676-16), (500-129676-E-20-D), (500-129676-E-20-E DU), (500-129676-E-20-F MS) and (500-129676-E-20-D SD) ; therefore, the data have been reported.

Method(s) 6010B: The method blank for preparation batch 500-390633 and analytical batch 500-390815 contained Zinc above the reporting limit (RL). Associated samples 2274V-05-B02 (0-1) (500-129676-15), 2274V-05-B01 (0-1) (500-129676-16) and (500-129676-E-17-H) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

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

General Chemistry

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

Organic Prep

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

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-5

Client Sample ID: 2274V-05-B02 (0-1)

Lab Sample ID: 500-129676-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0097	J	0.038	0.0058	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.0091	J	0.076	0.0070	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.014	J	0.038	0.0050	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.016	J	0.038	0.0068	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.018	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.49		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.082		0.038	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	1.6		0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	1.2		0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.63		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.94		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.21		0.19	0.069	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1.6		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.67		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.76		0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.30		0.038	0.0098	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.083		0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.34		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.24	J	1.2	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.9		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	47		0.58	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.40		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Boron	7.9		2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.66		0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	89000	B	120	20	mg/Kg	10	☼	6010B	Total/NA
Chromium	20		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.7		0.29	0.076	mg/Kg	1	☼	6010B	Total/NA
Copper	29		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	15000	B	12	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	91		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	30000	B	5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	400	B	0.58	0.084	mg/Kg	1	☼	6010B	Total/NA
Nickel	20		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		29	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.69		0.58	0.34	mg/Kg	1	☼	6010B	Total/NA
Sodium	120		58	8.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	220	B	1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Barium	0.33	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.14	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0043	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.21		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.32	J ^	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.11		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.054	B	0.017	0.0055	mg/Kg	1	☼	7471B	Total/NA
pH	7.5		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 83 - WO 015

TestAmerica Job ID: 500-129676-5

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-129676-15	2274V-05-B02 (0-1)	Solid	06/15/17 15:22	06/15/17 16:25

1

2

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-5

Client Sample ID: 2274V-05-B02 (0-1)

Lab Sample ID: 500-129676-15

Date Collected: 06/15/17 15:22

Matrix: Solid

Date Received: 06/15/17 16:25

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	0.0088	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Benzene	<0.0020		0.0020	0.00052	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Bromoform	<0.0020		0.0020	0.00059	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Bromomethane	<0.0051		0.0051	0.0019	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
2-Butanone (MEK)	<0.0051		0.0051	0.0022	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Carbon disulfide	<0.0051		0.0051	0.0011	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Carbon tetrachloride	<0.0020		0.0020	0.00059	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Chlorobenzene	<0.0020		0.0020	0.00075	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Chloroethane	<0.0051		0.0051	0.0015	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Chloroform	<0.0020		0.0020	0.00070	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Chloromethane	<0.0051		0.0051	0.0020	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00057	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00061	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Dibromochloromethane	<0.0020		0.0020	0.00066	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
1,2-Dichloroethane	<0.0051		0.0051	0.0016	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
1,1-Dichloroethene	<0.0020		0.0020	0.00070	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00071	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Ethylbenzene	<0.0020		0.0020	0.00097	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
2-Hexanone	<0.0051		0.0051	0.0016	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Methylene Chloride	<0.0051		0.0051	0.0020	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
4-Methyl-2-pentanone (MIBK)	<0.0051		0.0051	0.0015	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Styrene	<0.0020		0.0020	0.00061	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00065	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Tetrachloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00090	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00071	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00087	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Vinyl acetate	<0.0051		0.0051	0.0018	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Vinyl chloride	<0.0020		0.0020	0.00090	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1
Xylenes, Total	<0.0040		0.0040	0.00065	mg/Kg	☼	06/15/17 17:16	06/19/17 21:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		75 - 131	06/15/17 17:16	06/19/17 21:42	1
Dibromofluoromethane	94		75 - 126	06/15/17 17:16	06/19/17 21:42	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	06/15/17 17:16	06/19/17 21:42	1
Toluene-d8 (Surr)	87		75 - 124	06/15/17 17:16	06/19/17 21:42	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	☼	06/21/17 19:17	06/23/17 00:17	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-5

Client Sample ID: 2274V-05-B02 (0-1)

Lab Sample ID: 500-129676-15

Date Collected: 06/15/17 15:22

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Nitrobenzene	<0.038		0.038	0.0094	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Naphthalene	0.0097	J	0.038	0.0058	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
2,4,5-Trichlorophenol	<0.38		0.38	0.086	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
2-Methylnaphthalene	0.0091	J	0.076	0.0070	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
2-Nitrophenol	<0.38		0.38	0.089	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
2,4-Dinitrophenol	<0.76	*	0.76	0.67	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Acenaphthylene	0.014	J	0.038	0.0050	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Acenaphthene	0.016	J	0.038	0.0068	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Fluorene	0.018	J	0.038	0.0053	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Phenanthrene	0.49		0.038	0.0053	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Anthracene	0.082		0.038	0.0063	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Fluoranthene	1.6		0.038	0.0070	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Pyrene	1.2		0.038	0.0075	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Benzo[a]anthracene	0.63		0.038	0.0051	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-5

Client Sample ID: 2274V-05-B02 (0-1)

Lab Sample ID: 500-129676-15

Date Collected: 06/15/17 15:22

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.94		0.038	0.010	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Bis(2-ethylhexyl) phthalate	0.21		0.19	0.069	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Benzo[b]fluoranthene	1.6		0.038	0.0082	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Benzo[k]fluoranthene	0.67		0.038	0.011	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Benzo[a]pyrene	0.76		0.038	0.0073	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Indeno[1,2,3-cd]pyrene	0.30		0.038	0.0098	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Dibenz(a,h)anthracene	0.083		0.038	0.0073	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
Benzo[g,h,i]perylene	0.34		0.038	0.012	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/21/17 19:17	06/23/17 00:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	98		46 - 133	06/21/17 19:17	06/23/17 00:17	1
Phenol-d5	91		46 - 125	06/21/17 19:17	06/23/17 00:17	1
Nitrobenzene-d5	73		41 - 120	06/21/17 19:17	06/23/17 00:17	1
2-Fluorobiphenyl	74		44 - 121	06/21/17 19:17	06/23/17 00:17	1
2,4,6-Tribromophenol	66		25 - 139	06/21/17 19:17	06/23/17 00:17	1
Terphenyl-d14	83		35 - 160	06/21/17 19:17	06/23/17 00:17	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.24	J	1.2	0.22	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Arsenic	5.9		0.58	0.20	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Barium	47		0.58	0.066	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Beryllium	0.40		0.23	0.054	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Boron	7.9		2.9	0.27	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Cadmium	0.66		0.12	0.021	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Calcium	89000	B	120	20	mg/Kg	☼	06/23/17 10:07	06/26/17 12:17	10
Chromium	20		0.58	0.29	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Cobalt	8.7		0.29	0.076	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Copper	29		0.58	0.16	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Iron	15000	B	12	6.0	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Lead	91		0.29	0.13	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Magnesium	30000	B	5.8	2.9	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Manganese	400	B	0.58	0.084	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Nickel	20		0.58	0.17	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Potassium	1500		29	10	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Selenium	0.69		0.58	0.34	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Silver	<0.29		0.29	0.074	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Sodium	120		58	8.5	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Vanadium	17		0.29	0.068	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1
Zinc	220	B	1.2	0.51	mg/Kg	☼	06/23/17 10:07	06/24/17 19:49	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.33	J	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 22:17	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/17 10:30	06/21/17 22:17	1
Boron	0.14	J B	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 22:17	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-5

Client Sample ID: 2274V-05-B02 (0-1)

Lab Sample ID: 500-129676-15

Date Collected: 06/15/17 15:22

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0043	J	0.0050	0.0020	mg/L	-	06/21/17 10:30	06/21/17 22:17	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 22:17	1
Cobalt	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 22:17	1
Iron	<0.40	*	0.40	0.20	mg/L	-	06/21/17 10:30	06/21/17 22:17	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/21/17 10:30	06/21/17 22:17	1
Manganese	0.21		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 22:17	1
Nickel	0.011	J	0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 22:17	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/21/17 10:30	06/21/17 22:17	1
Silver	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 22:17	1
Zinc	0.32	J ^	0.50	0.020	mg/L	-	06/21/17 10:30	06/21/17 22:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.11		0.025	0.010	mg/L	-	06/22/17 07:36	06/23/17 01:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	06/21/17 10:30	06/23/17 15:13	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/21/17 10:30	06/23/17 15:13	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	06/21/17 11:45	06/22/17 10:45	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.054	B	0.017	0.0055	mg/Kg	☼	06/21/17 08:00	06/21/17 12:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5		0.2	0.2	SU	-		06/28/17 13:15	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-5

Qualifiers

GC/MS Semi VOA

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

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-5

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/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 #: 500-129676
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 3.4, 5.6

Client		Client Project #		Preservative		Parameter		Matrix		Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other
Project Name		Lab Project #		Sampling		# of Containers		Matrix		
Project Location/State		Lab PM		Date	Time					
<u>E+E</u>		<u>1009341.0015</u>								VOC SVOC Total / TCLP Metals pH / Percent Solids
<u>176-001-W015</u>										
<u>Crestwood, IL</u>										
Sampler <u>EF, JH</u>										Comments
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix				
<u>15</u>		<u>2274V-05-B02(0-1)</u>	<u>6/15/17</u>	<u>1522</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>16</u>		<u>2274V-05-B01(0-1)</u>	<u>6/15/17</u>	<u>1525</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>

Turnaround Time Required (Business Days)

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

Sample Disposal

Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>[Signature]</u> Company: <u>E+E</u> Date: <u>6/15/17</u> Time: <u>1530</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/15/17</u> Time: <u>1530</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/15/17</u> Time: <u>1625</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/15/17</u> Time: <u>1625</u>

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

Matrix Key

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

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-129676-5

Login Number: 129676

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	3.4, 5.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





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

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

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

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

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

I. Source Location Information

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

Project Name: FAP 344 (Illinois Route 83) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
5320 W. 127th Street (ISGS #2274V-6)

City: Alsip State: IL Zip Code: 60803

County: Cook Township: Worth

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

Latitude: 41.66174 Longitude: -87.75394
(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: 0310035197 BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Tyler Petersen

Contact: Tyler Petersen

Email, if available: Tyler.Petersen@illinois.gov

Email, if available: Tyler.Petersen@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 344 (Illinois Route 83)

Latitude: 41.66174 Longitude: -87.75394

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 2274V-06-B01, -B03, -B05, and -B06 were sampled within the construction zone adjacent to ISGS #2274V-6 (Speedway Gas Station). Refer to PSI Report for ISGS #2274V-6 (Speedway Gas Station) including Table 4-3, and Figures 4-2 and 4-4.

- 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 J129676-6, J129768-2 and J143305-5.

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

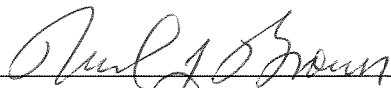
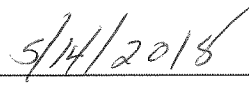
I, Neil J. Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental 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:

Date:





Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15B

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 or not applicable.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.
- PID = Photoionization detector.
- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

- # = pH is less than 6.25 or greater than 9.0 standard units.
- ** = Headspace reading above background (outside of instrument margin of error).
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Headspace reading exceeds background levels
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	(Speedway Gas Station)	Comparison Criteria					
BORING	2274V-06-B05	MACs			TACO		
SAMPLE	2274V-06-B05 (0-1)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil						
DEPTH (feet)	0-1						
pH	8.3						
VOCs (None Detected)							
SVOCs (mg/kg)							
2-Methylnaphthalene	ND U	--	--	--	--	--	--
Acenaphthene	0.011 J	570	--	--	4,700	120,000	--
Acenaphthylene	0.0073 J	--	--	--	--	--	--
Anthracene	0.044	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.39	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.48 †	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.87	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.24 J	--	--	--	--	--	--
Benzo(k)fluoranthene	0.32	9	--	--	9	1,700	--
Bis(2-ethylhexyl) phthalate	0.082 J	46	--	--	46	4,100	--
Butyl benzyl phthalate	ND U	930	--	--	930	930	--
Carbazole	ND U	0.6	--	--	32	6,200	--
Chrysene	0.50	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.068 J	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.96	3,100	--	--	3,100	82,000	--
Fluorene	0.013 J	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.23 J	0.9	1.6	0.9	1.6	170	--
Naphthalene	ND U	1.8	--	--	170	1.8	--
Phenanthrene	0.33	--	--	--	--	--	--
Pyrene	0.88 J	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)							
Antimony	ND U	5	--	--	31	82	--
Arsenic	5.3	11.3	13	--	13	61	--
Barium	87	1,500	--	--	5,500	14,000	--
Beryllium	0.57	22	--	--	160	410	--
Boron	2.9	40	--	--	16,000	41,000	--
Cadmium	0.23	5.2	--	--	78	200	--
Calcium	19,000	--	--	--	--	--	--
Chromium	17	21	--	--	230	690	--
Cobalt	9.9	20	--	--	4,700	12,000	--
Copper	18	2,900	--	--	2,900	8,200	--
Iron	16,000 †m	15,000	15,900	--	--	--	--
Lead	25	107	--	--	400	700	--
Magnesium	9,400	325,000	--	--	--	730,000	--
Manganese	380	630	636	--	1,600	4,100	--
Mercury	ND U	0.89	--	--	10	0.1	--
Nickel	20	100	--	--	1,600	4,100	--
Potassium	1,400	--	--	--	--	--	--
Selenium	0.69	1.3	--	--	390	1,000	--
Sodium	350	--	--	--	--	--	--
Vanadium	19	550	--	--	550	1,400	--
Zinc	88	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)							
Barium	0.47 J	--	--	--	--	--	2
Cadmium	0.0021 J	--	--	--	--	--	0.005
Chromium	ND U	--	--	--	--	--	0.1
Iron	ND U	--	--	--	--	--	5
Manganese	0.64 L	--	--	--	--	--	0.15
Zinc	0.055 J	--	--	--	--	--	5
SPLP Metals (mg/L)							
Manganese	0.28 L	--	--	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #2274V-6 (Speedway Gas Station)	Comparison Criteria					
		MACs			TACO		
BORING	2274V-06-B06	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2274V-06-B06 (0-7)						
MATRIX	Soil						
DEPTH (feet)	0-7						
pH	8.3						
PID > Bkgd.	--						
VOCs (mg/kg)							
Acetone	0.0092 J	25	--	--	70,000	100,000	--
SVOCs (mg/kg)							
2-Methylnaphthalene	0.0075 J	--	--	--	--	--	--
Acenaphthene	0.011 J	570	--	--	4,700	120,000	--
Anthracene	0.028 J	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.16	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.19 †	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.26	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.12	--	--	--	--	--	--
Benzo(k)fluoranthene	0.093	9	--	--	9	1,700	--
Chrysene	0.18	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.032 J	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.37	3,100	--	--	3,100	82,000	--
Fluorene	0.010 J	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.11	0.9	1.6	0.9	1.6	170	--
Phenanthrene	0.18	--	--	--	--	--	--
Pyrene	0.28	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)							
Arsenic	5.8	11.3	13	--	13	61	--
Barium	65	1,500	--	--	5,500	14,000	--
Beryllium	0.71	22	--	--	160	410	--
Boron	6.1	40	--	--	16,000	41,000	--
Cadmium	0.27	5.2	--	--	78	200	--
Calcium	34,000	--	--	--	--	--	--
Chromium	15	21	--	--	230	690	--
Cobalt	9.0	20	--	--	4,700	12,000	--
Copper	17	2,900	--	--	2,900	8,200	--
Iron	15,000	15,000	15,900	--	--	--	--
Lead	30	107	--	--	400	700	--
Magnesium	20,000	325,000	--	--	--	730,000	--
Manganese	420	630	636	--	1,600	4,100	--
Mercury	0.035	0.89	--	--	10	0.1	--
Nickel	19	100	--	--	1,600	4,100	--
Potassium	1,300	--	--	--	--	--	--
Silver	0.21 J	4.4	--	--	390	1,000	--
Sodium	110	--	--	--	--	--	--
Vanadium	18	550	--	--	550	1,400	--
Zinc	130	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)							
Barium	0.37 J	--	--	--	--	--	2
Boron	0.065 J	--	--	--	--	--	2
Cadmium	0.0025 J	--	--	--	--	--	0.005
Manganese	0.19 L	--	--	--	--	--	0.15
Zinc	0.066 J	--	--	--	--	--	5
SPLP Metals (mg/L)							
Manganese	0.35 L	--	--	--	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 500-129676-6
Client Project/Site: IDOT - IL 83 - WO 015

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/29/2017 4:41:31 PM

Richard Wright, Senior Project Manager
(708)534-5200
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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-6

Job ID: 500-129676-6

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-129676-6

Comments

No additional comments.

Receipt

The samples were received on 6/15/2017 4:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 5.6° 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: The following matrix spike/matrix spike duplicate (MS/MSD) recovered at 0% for one or more analytes. Data has been qualified and reported

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

Metals

Method(s) 6010B: The continuing calibration verification (CCV) associated with batch 500-390443 recovered above the upper control limit for Zinc. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: 2274V-06-B04 (0-1) (500-129676-17), 2274V-06-B03 (0-1) (500-129676-18), 2274V-06-B02 (0-1) (500-129676-19) and 2274V-06-B01 (0-4) (500-129676-20).

Method(s) 6010B: The laboratory control sample (LCS) for preparation batch 500-390154 and 500-390310 and analytical batch 500-390443 recovered outside control limits for the following analyte: Iron. The analyte was biased high in the LCS and were not detected in the associated samples 2274V-06-B04 (0-1) (500-129676-17), 2274V-06-B03 (0-1) (500-129676-18), 2274V-06-B02 (0-1) (500-129676-19), 2274V-06-B01 (0-4) (500-129676-20), (500-129676-E-20-E DU), (500-129676-E-20-F MS) and (500-129676-E-20-D SD) ; therefore, the data have been reported.

Method(s) 6010B: The method blank for preparation batch 500-390633 and analytical batch 500-390815 contained Zinc above the reporting limit (RL). Associated samples 2274V-06-B04 (0-1) (500-129676-17), 2274V-06-B03 (0-1) (500-129676-18), 2274V-06-B02 (0-1) (500-129676-19) and 2274V-06-B01 (0-4) (500-129676-20) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

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

General Chemistry

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

Organic Prep

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

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-6

Client Sample ID: 2274V-06-B03 (0-1)

Lab Sample ID: 500-129676-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0062	J	0.037	0.0057	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.076		0.037	0.0049	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.030	J	0.037	0.0067	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.030	J	0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.73		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.15		0.037	0.0062	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	2.2		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	1.9		0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.97		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	1.1		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.14	J	0.19	0.068	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1.7		0.037	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.72		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	1.0		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.41		0.037	0.0097	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.11		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.40		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.5		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	94		0.55	0.063	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.70		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	6.7		2.7	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.40		0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	15000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	21		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.27	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	24		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	20000	B	11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	63		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	9700	B	5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	430	B	0.55	0.080	mg/Kg	1	☼	6010B	Total/NA
Nickel	25		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2000		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	1.0		0.55	0.32	mg/Kg	1	☼	6010B	Total/NA
Sodium	760		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		0.27	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	110	B	1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.42	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0025	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.31		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.058	J ^	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.47		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.057	B	0.018	0.0059	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

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-6



Client Sample ID: 2274V-06-B01 (0-4)

Lab Sample ID: 500-129676-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Phenanthrene	0.031	J	0.037	0.0052	mg/Kg	1	*		8270D	Total/NA
Fluoranthene	0.088		0.037	0.0070	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 83 - WO 015

TestAmerica Job ID: 500-129676-6

Client Sample ID: 2274V-06-B01 (0-4) (Continued)

Lab Sample ID: 500-129676-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene	0.089		0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.050		0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.060		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.074		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.031	J	0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.056		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.043		0.037	0.0097	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.037		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	9.4		0.57	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	60		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.57		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	7.3		2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.28		0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	60000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Chromium	16		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	18		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	15000	B	11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	24		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	18000	B	5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	630	B	0.57	0.082	mg/Kg	1	☼	6010B	Total/NA
Nickel	22		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		28	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.72		0.57	0.33	mg/Kg	1	☼	6010B	Total/NA
Sodium	180		57	8.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.28	0.067	mg/Kg	1	☼	6010B	Total/NA
Zinc	66	B	1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.32	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.098	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0025	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.35		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.039	J ^	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.25		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.042	B	0.019	0.0063	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 83 - WO 015

TestAmerica Job ID: 500-129676-6

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-129676-18	2274V-06-B03 (0-1)	Solid	06/15/17 14:45	06/15/17 16:25
500-129676-20	2274V-06-B01 (0-4)	Solid	06/15/17 15:00	06/15/17 16:25

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-6

Client Sample ID: 2274V-06-B03 (0-1)

Lab Sample ID: 500-129676-18

Date Collected: 06/15/17 14:45

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 87.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0086	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Benzene	<0.0020		0.0020	0.00050	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Bromomethane	<0.0049		0.0049	0.0019	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
2-Butanone (MEK)	<0.0049		0.0049	0.0022	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Carbon tetrachloride	<0.0020		0.0020	0.00057	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Chlorobenzene	<0.0020		0.0020	0.00073	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Chloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Chloroform	<0.0020		0.0020	0.00068	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00059	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Dibromochloromethane	<0.0020		0.0020	0.00064	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
1,1-Dichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
1,1-Dichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00069	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Ethylbenzene	<0.0020		0.0020	0.00094	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0015	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00058	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Tetrachloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Toluene	<0.0020		0.0020	0.00050	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00087	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00069	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00066	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00085	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Trichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Vinyl acetate	<0.0049		0.0049	0.0017	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Vinyl chloride	<0.0020		0.0020	0.00087	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1
Xylenes, Total	<0.0039		0.0039	0.00063	mg/Kg	☼	06/15/17 17:16	06/20/17 13:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		75 - 131	06/15/17 17:16	06/20/17 13:22	1
Dibromofluoromethane	92		75 - 126	06/15/17 17:16	06/20/17 13:22	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 134	06/15/17 17:16	06/20/17 13:22	1
Toluene-d8 (Surr)	89		75 - 124	06/15/17 17:16	06/20/17 13:22	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	☼	06/21/17 19:17	06/22/17 23:44	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-6

Client Sample ID: 2274V-06-B03 (0-1)

Lab Sample ID: 500-129676-18

Date Collected: 06/15/17 14:45

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 87.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Naphthalene	0.0062	J	0.037	0.0057	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
2-Methylnaphthalene	<0.075		0.075	0.0069	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
2,4-Dinitrophenol	<0.75		0.75	0.66	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Acenaphthylene	0.076		0.037	0.0049	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Acenaphthene	0.030	J	0.037	0.0067	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Fluorene	0.030	J	0.037	0.0052	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Phenanthrene	0.73		0.037	0.0052	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Anthracene	0.15		0.037	0.0062	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Carbazole	<0.19		0.19	0.093	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Fluoranthene	2.2		0.037	0.0069	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Pyrene	1.9		0.037	0.0074	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Benzo[a]anthracene	0.97		0.037	0.0050	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-6

Client Sample ID: 2274V-06-B03 (0-1)

Lab Sample ID: 500-129676-18

Date Collected: 06/15/17 14:45

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 87.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	1.1		0.037	0.010	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Bis(2-ethylhexyl) phthalate	0.14	J	0.19	0.068	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Benzo[b]fluoranthene	1.7		0.037	0.0080	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Benzo[k]fluoranthene	0.72		0.037	0.011	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Benzo[a]pyrene	1.0		0.037	0.0072	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Indeno[1,2,3-cd]pyrene	0.41		0.037	0.0097	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Dibenz(a,h)anthracene	0.11		0.037	0.0072	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
Benzo[g,h,i]perylene	0.40		0.037	0.012	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	06/21/17 19:17	06/22/17 23:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	103		46 - 133	06/21/17 19:17	06/22/17 23:44	1
Phenol-d5	91		46 - 125	06/21/17 19:17	06/22/17 23:44	1
Nitrobenzene-d5	82		41 - 120	06/21/17 19:17	06/22/17 23:44	1
2-Fluorobiphenyl	80		44 - 121	06/21/17 19:17	06/22/17 23:44	1
2,4,6-Tribromophenol	73		25 - 139	06/21/17 19:17	06/22/17 23:44	1
Terphenyl-d14	102		35 - 160	06/21/17 19:17	06/22/17 23:44	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Arsenic	6.5		0.55	0.19	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Barium	94		0.55	0.063	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Beryllium	0.70		0.22	0.051	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Boron	6.7		2.7	0.26	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Cadmium	0.40		0.11	0.020	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Calcium	15000	B	11	1.9	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Chromium	21		0.55	0.27	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Cobalt	11		0.27	0.072	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Copper	24		0.55	0.15	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Iron	20000	B	11	5.7	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Lead	63		0.27	0.13	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Magnesium	9700	B	5.5	2.7	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Manganese	430	B	0.55	0.080	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Nickel	25		0.55	0.16	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Potassium	2000		27	9.7	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Selenium	1.0		0.55	0.32	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Silver	<0.27		0.27	0.071	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Sodium	760		55	8.1	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Vanadium	23		0.27	0.065	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	1
Zinc	110	B	1.1	0.48	mg/Kg	☼	06/23/17 10:07	06/24/17 20:23	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		06/21/17 10:30	06/21/17 22:32	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/17 10:30	06/21/17 22:32	1
Boron	0.11	J B	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 22:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-6

Client Sample ID: 2274V-06-B03 (0-1)

Lab Sample ID: 500-129676-18

Date Collected: 06/15/17 14:45

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 87.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0025	J	0.0050	0.0020	mg/L	-	06/21/17 10:30	06/21/17 22:32	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 22:32	1
Cobalt	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 22:32	1
Iron	<0.40	*	0.40	0.20	mg/L	-	06/21/17 10:30	06/21/17 22:32	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/21/17 10:30	06/21/17 22:32	1
Manganese	0.31		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 22:32	1
Nickel	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 22:32	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/21/17 10:30	06/21/17 22:32	1
Silver	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 22:32	1
Zinc	0.058	J ^	0.50	0.020	mg/L	-	06/21/17 10:30	06/21/17 22:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.47		0.025	0.010	mg/L	-	06/22/17 07:36	06/23/17 02:04	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	-	06/21/17 10:30	06/23/17 15:19	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/21/17 10:30	06/23/17 15:19	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	06/21/17 11:45	06/22/17 10:52	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.057	B	0.018	0.0059	mg/Kg	☼	06/21/17 08:00	06/21/17 12:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.5		0.2	0.2	SU	-		06/28/17 13:27	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-6

Client Sample ID: 2274V-06-B01 (0-4)

Lab Sample ID: 500-129676-20

Date Collected: 06/15/17 15:00

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 87.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0070	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Carbon disulfide	<0.0040		0.0040	0.00083	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Chloroform	<0.0016		0.0016	0.00055	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Dibromochloromethane	<0.0016		0.0016	0.00052	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
1,2-Dichloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00056	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Ethylbenzene	<0.0016		0.0016	0.00076	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
2-Hexanone	<0.0040		0.0040	0.0012	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Styrene	<0.0016		0.0016	0.00048	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Tetrachloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00071	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00056	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00068	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Vinyl acetate	<0.0040		0.0040	0.0014	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Vinyl chloride	<0.0016		0.0016	0.00071	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1
Xylenes, Total	<0.0032		0.0032	0.00051	mg/Kg	☼	06/15/17 17:16	06/20/17 14:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		75 - 131	06/15/17 17:16	06/20/17 14:12	1
Dibromofluoromethane	92		75 - 126	06/15/17 17:16	06/20/17 14:12	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	06/15/17 17:16	06/20/17 14:12	1
Toluene-d8 (Surr)	91		75 - 124	06/15/17 17:16	06/20/17 14:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.083	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-6

Client Sample ID: 2274V-06-B01 (0-4)

Lab Sample ID: 500-129676-20

Date Collected: 06/15/17 15:00

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 87.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
2-Methylnaphthalene	<0.076		0.076	0.0069	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Phenanthrene	0.031	J	0.037	0.0052	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Fluoranthene	0.088		0.037	0.0070	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Pyrene	0.089		0.037	0.0075	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Benzo[a]anthracene	0.050		0.037	0.0051	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-6

Client Sample ID: 2274V-06-B01 (0-4)

Lab Sample ID: 500-129676-20

Date Collected: 06/15/17 15:00

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 87.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.060		0.037	0.010	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Benzo[b]fluoranthene	0.074		0.037	0.0081	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Benzo[k]fluoranthene	0.031	J	0.037	0.011	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Benzo[a]pyrene	0.056		0.037	0.0073	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Indeno[1,2,3-cd]pyrene	0.043		0.037	0.0097	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
Benzo[g,h,i]perylene	0.037		0.037	0.012	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/21/17 19:17	06/22/17 20:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	111		46 - 133	06/21/17 19:17	06/22/17 20:30	1
Phenol-d5	101		46 - 125	06/21/17 19:17	06/22/17 20:30	1
Nitrobenzene-d5	94		41 - 120	06/21/17 19:17	06/22/17 20:30	1
2-Fluorobiphenyl	87		44 - 121	06/21/17 19:17	06/22/17 20:30	1
2,4,6-Tribromophenol	72		25 - 139	06/21/17 19:17	06/22/17 20:30	1
Terphenyl-d14	114		35 - 160	06/21/17 19:17	06/22/17 20:30	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Arsenic	9.4		0.57	0.19	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Barium	60		0.57	0.065	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Beryllium	0.57		0.23	0.053	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Boron	7.3		2.8	0.26	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Cadmium	0.28		0.11	0.020	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Calcium	60000	B	110	19	mg/Kg	☼	06/23/17 10:07	06/26/17 12:47	10
Chromium	16		0.57	0.28	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Cobalt	11		0.28	0.074	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Copper	18		0.57	0.16	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Iron	15000	B	11	5.9	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Lead	24		0.28	0.13	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Magnesium	18000	B	5.7	2.8	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Manganese	630	B	0.57	0.082	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Nickel	22		0.57	0.16	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Potassium	1300		28	10	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Selenium	0.72		0.57	0.33	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Silver	<0.28		0.28	0.073	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Sodium	180		57	8.4	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Vanadium	16		0.28	0.067	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	1
Zinc	66	B	1.1	0.50	mg/Kg	☼	06/23/17 10:07	06/24/17 20:31	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		06/21/17 10:30	06/21/17 22:47	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/17 10:30	06/21/17 22:47	1
Boron	0.098	J B	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 22:47	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-6

Client Sample ID: 2274V-06-B01 (0-4)

Lab Sample ID: 500-129676-20

Date Collected: 06/15/17 15:00

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 87.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0025	J	0.0050	0.0020	mg/L	-	06/21/17 10:30	06/21/17 22:47	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 22:47	1
Cobalt	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 22:47	1
Iron	<0.40	*	0.40	0.20	mg/L	-	06/21/17 10:30	06/21/17 22:47	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/21/17 10:30	06/21/17 22:47	1
Manganese	0.35		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 22:47	1
Nickel	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 22:47	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/21/17 10:30	06/21/17 22:47	1
Silver	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 22:47	1
Zinc	0.039	J ^	0.50	0.020	mg/L	-	06/21/17 10:30	06/21/17 22:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.25		0.025	0.010	mg/L	-	06/22/17 07:36	06/23/17 02:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	06/21/17 10:30	06/23/17 15:27	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/21/17 10:30	06/23/17 15:27	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	-	06/21/17 11:45	06/22/17 10:55	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.042	B	0.019	0.0063	mg/Kg	☼	06/21/17 08:00	06/21/17 12:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.6		0.2	0.2	SU	-		06/28/17 13:35	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-6

Qualifiers

GC/MS Semi VOA

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

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-6

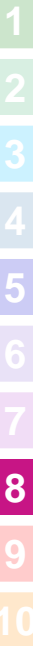
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/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 #: **500-129676**
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: **34.56**

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
E+E		1009341.00/5.02									
Project Name		Project Location/State		Lab Project #		Lab PM		Matrix		Comments	
176-001-W015		Crestwood, IL		R. Wright				VOC SVOC			
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	VOC	SVOC	Total/ TCLP Metals	pH/ Percent Solids	Comments
17		2274V-06-B04(0-1)	6/15/17	1430	5	S	X	X	X	X	
18		2274V-06-B03(0-1)	6/15/17	1445	5	S	X	X	X	X	
19		2274V-06-B02(0-1)	6/15/17	1450	5	S	X	X	X	X	
20		2274V-06-B01(0-4)	6/15/17	1500	5	S	X	X	X	X	

- Preservative Key
- HCL, Cool to 4°
 - H2SO4, Cool to 4°
 - HNO3, Cool to 4°
 - NaOH, Cool to 4°
 - NaOH/Zn, Cool to 4°
 - NaHSO4
 - Cool to 4°
 - None
 - Other

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other
 Requested Due Date _____

Sample Disposal
 Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <i>[Signature]</i> Company: E+E Date: 6/15/17 Time: 1530	Received By: <i>[Signature]</i> Company: TA Date: 6/15/17 Time: 1530	Lab Courier: TA
Relinquished By: <i>[Signature]</i> Company: TA Date: 6/15/17 Time: 1625	Received By: <i>[Signature]</i> Company: TA Date: 6/15/17 Time: 1625	Shipped: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: _____

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

Client Comments: _____
 Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-129676-6

Login Number: 129676

List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4, 5.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 500-129768-2
Client Project/Site: IDOT - IL 83 - WO 015

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/30/2017 11:52:56 AM

Richard Wright, Senior Project Manager
(708)534-5200
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LINKS

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www.testamericainc.com

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-2

Job ID: 500-129768-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-129768-2

Receipt

The samples were received on 6/16/2017 4:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 4.5° 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 500-390790 had 1 analyte outside control limits: 2,4-Dinitrophenol. 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.

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

Metals

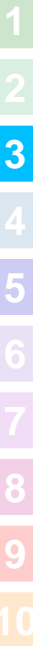
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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 83 - WO 015

TestAmerica Job ID: 500-129768-2

Client Sample ID: 2274V-06-B05 (0-1)

Lab Sample ID: 500-129768-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0073	J	0.035	0.0046	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.011	J	0.035	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.013	J	0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.33		0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.044		0.035	0.0059	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.96		0.035	0.0065	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.88	F1	0.035	0.0070	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.39		0.035	0.0047	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.50		0.035	0.0096	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.082	J F1	0.18	0.064	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.87		0.035	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.32		0.035	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.48		0.035	0.0068	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.23	F1	0.035	0.0091	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.068	F1	0.035	0.0068	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.24	F1	0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.3		0.50	0.17	mg/Kg	1	☼	6010B	Total/NA
Barium	87		0.54	0.061	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.57		0.21	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	2.9		2.5	0.23	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.23	B	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	19000	B	11	1.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	17		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.9		0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Copper	18		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	16000		11	5.6	mg/Kg	1	☼	6010B	Total/NA
Lead	25		0.25	0.11	mg/Kg	1	☼	6010B	Total/NA
Magnesium	9400	B	5.0	2.5	mg/Kg	1	☼	6010B	Total/NA
Manganese	380		0.50	0.072	mg/Kg	1	☼	6010B	Total/NA
Nickel	20		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1400		27	9.5	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.69		0.50	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	350		54	8.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	19		0.27	0.063	mg/Kg	1	☼	6010B	Total/NA
Zinc	88		1.1	0.47	mg/Kg	1	☼	6010B	Total/NA
Barium	0.47	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0021	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.64		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.055	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.28		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.045	B	0.017	0.0058	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 83 - WO 015

TestAmerica Job ID: 500-129768-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-129768-2	2274V-06-B05 (0-1)	Solid	06/16/17 09:55	06/16/17 16:00

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-2

Client Sample ID: 2274V-06-B05 (0-1)

Lab Sample ID: 500-129768-2

Date Collected: 06/16/17 09:55

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 90.5

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	☼	06/16/17 17:21	06/21/17 18:39	1
Benzene	<0.0022		0.0022	0.00055	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Bromodichloromethane	<0.0022		0.0022	0.00044	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Bromoform	<0.0022		0.0022	0.00063	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Bromomethane	<0.0054		0.0054	0.0021	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
2-Butanone (MEK)	<0.0054		0.0054	0.0024	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Carbon disulfide	<0.0054		0.0054	0.0011	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Carbon tetrachloride	<0.0022		0.0022	0.00063	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Chlorobenzene	<0.0022		0.0022	0.00080	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Chloroethane	<0.0054		0.0054	0.0016	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Chloroform	<0.0022		0.0022	0.00075	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Chloromethane	<0.0054		0.0054	0.0022	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
cis-1,2-Dichloroethene	<0.0022		0.0022	0.00061	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
cis-1,3-Dichloropropene	<0.0022		0.0022	0.00066	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Dibromochloromethane	<0.0022		0.0022	0.00071	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
1,1-Dichloroethane	<0.0022		0.0022	0.00074	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
1,2-Dichloroethane	<0.0054		0.0054	0.0017	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
1,1-Dichloroethene	<0.0022		0.0022	0.00075	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
1,2-Dichloropropane	<0.0022		0.0022	0.00056	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
1,3-Dichloropropane, Total	<0.0022		0.0022	0.00076	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Ethylbenzene	<0.0022		0.0022	0.0010	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
2-Hexanone	<0.0054		0.0054	0.0017	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Methylene Chloride	<0.0054		0.0054	0.0021	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
4-Methyl-2-pentanone (MIBK)	<0.0054		0.0054	0.0016	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Methyl tert-butyl ether	<0.0022		0.0022	0.00064	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Styrene	<0.0022		0.0022	0.00066	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
1,1,2,2-Tetrachloroethane	<0.0022		0.0022	0.00069	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Tetrachloroethene	<0.0022		0.0022	0.00074	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Toluene	<0.0022		0.0022	0.00055	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
trans-1,2-Dichloroethene	<0.0022		0.0022	0.00096	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
trans-1,3-Dichloropropene	<0.0022		0.0022	0.00076	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
1,1,1-Trichloroethane	<0.0022		0.0022	0.00073	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
1,1,2-Trichloroethane	<0.0022		0.0022	0.00093	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Trichloroethene	<0.0022		0.0022	0.00073	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Vinyl acetate	<0.0054		0.0054	0.0019	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Vinyl chloride	<0.0022		0.0022	0.00096	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1
Xylenes, Total	<0.0043		0.0043	0.00070	mg/Kg	☼	06/16/17 17:21	06/21/17 18:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		75 - 131	06/16/17 17:21	06/21/17 18:39	1
Dibromofluoromethane	94		75 - 126	06/16/17 17:21	06/21/17 18:39	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 134	06/16/17 17:21	06/21/17 18:39	1
Toluene-d8 (Surr)	90		75 - 124	06/16/17 17:21	06/21/17 18:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.078	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-2

Client Sample ID: 2274V-06-B05 (0-1)

Lab Sample ID: 500-129768-2

Date Collected: 06/16/17 09:55

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 90.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
2-Methylphenol	<0.18		0.18	0.056	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
N-Nitrosodi-n-propylamine	<0.071		0.071	0.043	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Hexachloroethane	<0.18	F1	0.18	0.054	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
2,4-Dichlorophenol	<0.35		0.35	0.084	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
4-Chloroaniline	<0.71		0.71	0.17	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
2,4,5-Trichlorophenol	<0.35		0.35	0.080	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Hexachlorocyclopentadiene	<0.71	F1	0.71	0.20	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
2-Methylnaphthalene	<0.071		0.071	0.0065	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
2,4-Dinitrophenol	<0.71	* F1	0.71	0.62	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Acenaphthylene	0.0073	J	0.035	0.0046	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Acenaphthene	0.011	J	0.035	0.0063	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
4-Nitrophenol	<0.71		0.71	0.33	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Fluorene	0.013	J	0.035	0.0049	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Hexachlorobenzene	<0.071		0.071	0.0082	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Pentachlorophenol	<0.71	F1	0.71	0.56	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
4,6-Dinitro-2-methylphenol	<0.71	F1	0.71	0.28	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Phenanthrene	0.33		0.035	0.0049	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Anthracene	0.044		0.035	0.0059	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Carbazole	<0.18		0.18	0.088	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Fluoranthene	0.96		0.035	0.0065	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Pyrene	0.88	F1	0.035	0.0070	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Butyl benzyl phthalate	<0.18	F1	0.18	0.067	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Benzo[a]anthracene	0.39		0.035	0.0047	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-2

Client Sample ID: 2274V-06-B05 (0-1)

Lab Sample ID: 500-129768-2

Date Collected: 06/16/17 09:55

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 90.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.50		0.035	0.0096	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
3,3'-Dichlorobenzidine	<0.18	F1	0.18	0.049	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Bis(2-ethylhexyl) phthalate	0.082	J F1	0.18	0.064	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Di-n-octyl phthalate	<0.18		0.18	0.057	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Benzo[b]fluoranthene	0.87		0.035	0.0076	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Benzo[k]fluoranthene	0.32		0.035	0.010	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Benzo[a]pyrene	0.48		0.035	0.0068	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Indeno[1,2,3-cd]pyrene	0.23	F1	0.035	0.0091	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Dibenz(a,h)anthracene	0.068	F1	0.035	0.0068	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
Benzo[g,h,i]perylene	0.24	F1	0.035	0.011	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	06/25/17 19:26	06/26/17 19:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	73		46 - 133	06/25/17 19:26	06/26/17 19:21	1
Phenol-d5	69		46 - 125	06/25/17 19:26	06/26/17 19:21	1
Nitrobenzene-d5	56		41 - 120	06/25/17 19:26	06/26/17 19:21	1
2-Fluorobiphenyl	62		44 - 121	06/25/17 19:26	06/26/17 19:21	1
2,4,6-Tribromophenol	58		25 - 139	06/25/17 19:26	06/26/17 19:21	1
Terphenyl-d14	89		35 - 160	06/25/17 19:26	06/26/17 19:21	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	06/26/17 10:16	06/26/17 20:35	1
Arsenic	5.3		0.50	0.17	mg/Kg	☼	06/27/17 09:39	06/27/17 17:55	1
Barium	87		0.54	0.061	mg/Kg	☼	06/26/17 10:16	06/26/17 20:35	1
Beryllium	0.57		0.21	0.050	mg/Kg	☼	06/26/17 10:16	06/26/17 20:35	1
Boron	2.9		2.5	0.23	mg/Kg	☼	06/27/17 09:39	06/27/17 17:55	1
Cadmium	0.23	B	0.11	0.019	mg/Kg	☼	06/26/17 10:16	06/26/17 20:35	1
Calcium	19000	B	11	1.8	mg/Kg	☼	06/26/17 10:16	06/26/17 20:35	1
Chromium	17		0.54	0.27	mg/Kg	☼	06/26/17 10:16	06/26/17 20:35	1
Cobalt	9.9		0.27	0.070	mg/Kg	☼	06/26/17 10:16	06/26/17 20:35	1
Copper	18		0.54	0.15	mg/Kg	☼	06/26/17 10:16	06/26/17 20:35	1
Iron	16000		11	5.6	mg/Kg	☼	06/26/17 10:16	06/26/17 20:35	1
Lead	25		0.25	0.11	mg/Kg	☼	06/27/17 09:39	06/27/17 17:55	1
Magnesium	9400	B	5.0	2.5	mg/Kg	☼	06/27/17 09:39	06/27/17 17:55	1
Manganese	380		0.50	0.072	mg/Kg	☼	06/27/17 09:39	06/27/17 17:55	1
Nickel	20		0.54	0.16	mg/Kg	☼	06/26/17 10:16	06/26/17 20:35	1
Potassium	1400		27	9.5	mg/Kg	☼	06/26/17 10:16	06/26/17 20:35	1
Selenium	0.69		0.50	0.29	mg/Kg	☼	06/27/17 09:39	06/27/17 17:55	1
Silver	<0.27		0.27	0.069	mg/Kg	☼	06/26/17 10:16	06/26/17 20:35	1
Sodium	350		54	8.0	mg/Kg	☼	06/26/17 10:16	06/26/17 20:35	1
Thallium	<0.50		0.50	0.25	mg/Kg	☼	06/27/17 09:39	06/27/17 17:55	1
Vanadium	19		0.27	0.063	mg/Kg	☼	06/26/17 10:16	06/26/17 20:35	1
Zinc	88		1.1	0.47	mg/Kg	☼	06/26/17 10:16	06/26/17 20:35	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.47	J	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 00:30	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/23/17 07:08	06/24/17 00:30	1
Boron	0.11	J B	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 00:30	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-2

Client Sample ID: 2274V-06-B05 (0-1)

Lab Sample ID: 500-129768-2

Date Collected: 06/16/17 09:55

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 90.5

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	-	06/23/17 07:08	06/24/17 00:30	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 00:30	1
Cobalt	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 00:30	1
Iron	<0.40		0.40	0.20	mg/L	-	06/23/17 07:08	06/24/17 00:30	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/23/17 07:08	06/24/17 00:30	1
Manganese	0.64		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 00:30	1
Nickel	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 00:30	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/23/17 07:08	06/24/17 00:30	1
Silver	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 00:30	1
Zinc	0.055	J	0.50	0.020	mg/L	-	06/23/17 07:08	06/24/17 00:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.28		0.025	0.010	mg/L	-	06/23/17 07:12	06/25/17 00:22	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	-	06/23/17 07:08	06/23/17 18:00	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/23/17 07:08	06/23/17 18:00	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	06/22/17 10:29	06/23/17 10:11	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.045	B	0.017	0.0058	mg/Kg	☼	06/21/17 08:00	06/21/17 12:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.3		0.2	0.2	SU	-		06/29/17 15:39	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-2

Qualifiers

GC/MS Semi VOA

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

Metals

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

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-2

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/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 #: 500-129768
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 3.4, 4.5

Client		Client Project #		Preservative		Parameter												Preservative Key	
E+E		1009341.0015.02																1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHCO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #																	
176-001-W015																			
Project Location/State		Lab PM																	
Crestwood, IL		R. Wright																	
Sampler																			
EF, JH																			
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOC	SVOC	Total/TCLP	Metals	pH/Percent Solids							Comments	
			Date	Time															
2		2274V-06-B05 (0-1)	6/16/17	0955	5	S	X	X	X	X									

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other
 Requested Due Date _____

Sample Disposal
 Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Requested By: <u>J. Hughes</u> Company: <u>E+E</u> Date: <u>6/16/17</u> Time: <u>1510</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/16/17</u> Time: <u>1510</u>
Requested By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/16/17</u> Time: <u>1600</u>	Received By: <u>[Signature]</u> Company: <u>JACHS</u> Date: <u>6/16/17</u> Time: <u>1600</u>

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

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

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-129768-2

Login Number: 129768

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	3.4, 4.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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ANALYTICAL REPORT

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

TestAmerica Job ID: 500-143305-5
Client Project/Site: IDOT - IL 83 - WO 015B

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

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
4/16/2018 5:08:44 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

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results through
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www.testamericainc.com

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-5

Job ID: 500-143305-5

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-143305-5

Receipt

The samples were received on 4/4/2018 3:53 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.9° C.

GC/MS VOA

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

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid and/or one base surrogate outside acceptance limits: 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.2274V-06-B06 (0-7) (500-143305-11)

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

Metals

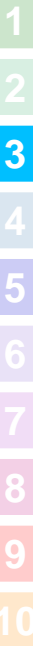
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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 83 - WO 015B

TestAmerica Job ID: 500-143305-5

Client Sample ID: 2274V-06-B06 (0-7)

Lab Sample ID: 500-143305-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0092	J	0.018	0.0079	mg/Kg	1	☼	8260B	Total/NA
2-Methylnaphthalene	0.0075	J	0.077	0.0070	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.011	J	0.038	0.0069	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.010	J	0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.18		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.028	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.37		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.28		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.16		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.18		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.26		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.093		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.19		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.11		0.038	0.0099	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.032	J	0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.12		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.8		0.59	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	65		0.59	0.067	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.71		0.24	0.055	mg/Kg	1	☼	6010B	Total/NA
Boron	6.1		2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.27	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	34000	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Chromium	15		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.0		0.29	0.077	mg/Kg	1	☼	6010B	Total/NA
Copper	17		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	15000	B	12	6.1	mg/Kg	1	☼	6010B	Total/NA
Lead	30		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	20000		5.9	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	420		0.59	0.086	mg/Kg	1	☼	6010B	Total/NA
Nickel	19		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		29	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.83	B	0.59	0.35	mg/Kg	1	☼	6010B	Total/NA
Silver	0.21	J	0.29	0.076	mg/Kg	1	☼	6010B	Total/NA
Sodium	110		59	8.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.29	0.070	mg/Kg	1	☼	6010B	Total/NA
Zinc	130		1.2	0.52	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	0.0025	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.19		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.013	J B	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.066	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.35		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.035		0.018	0.0060	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 83 - WO 015B

TestAmerica Job ID: 500-143305-5

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-143305-11	2274V-06-B06 (0-7)	Solid	04/04/18 14:20	04/04/18 15:53

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-5

Client Sample ID: 2274V-06-B06 (0-7)

Lab Sample ID: 500-143305-11

Date Collected: 04/04/18 14:20

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 81.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0092	J	0.018	0.0079	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Carbon disulfide	<0.0046		0.0046	0.00095	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Chlorobenzene	<0.0018		0.0018	0.00067	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Chloroethane	<0.0046		0.0046	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Chloromethane	<0.0046		0.0046	0.0018	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Ethylbenzene	<0.0018		0.0018	0.00087	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00078	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Vinyl acetate	<0.0046		0.0046	0.0016	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 17:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		75 - 131	04/04/18 17:00	04/05/18 17:51	1
Dibromofluoromethane	111		75 - 126	04/04/18 17:00	04/05/18 17:51	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	04/04/18 17:00	04/05/18 17:51	1
Toluene-d8 (Surr)	105		75 - 124	04/04/18 17:00	04/05/18 17:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1

TestAmerica Chicago

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TestAmerica Job ID: 500-143305-5

Client Sample ID: 2274V-06-B06 (0-7)

Lab Sample ID: 500-143305-11

Date Collected: 04/04/18 14:20

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 81.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
2-Methylnaphthalene	0.0075	J	0.077	0.0070	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Acenaphthene	0.011	J	0.038	0.0069	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Fluorene	0.010	J	0.038	0.0054	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Phenanthrene	0.18		0.038	0.0053	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Anthracene	0.028	J	0.038	0.0064	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Fluoranthene	0.37		0.038	0.0071	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Pyrene	0.28		0.038	0.0076	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Benzo[a]anthracene	0.16		0.038	0.0051	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1

TestAmerica Chicago

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Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 81.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.18		0.038	0.010	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Benzo[b]fluoranthene	0.26		0.038	0.0082	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Benzo[k]fluoranthene	0.093		0.038	0.011	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Benzo[a]pyrene	0.19		0.038	0.0074	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Indeno[1,2,3-cd]pyrene	0.11		0.038	0.0099	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Dibenz(a,h)anthracene	0.032	J	0.038	0.0074	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
Benzo[g,h,i]perylene	0.12		0.038	0.012	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	04/09/18 07:26	04/10/18 15:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	109		46 - 133	04/09/18 07:26	04/10/18 15:41	1
Phenol-d5	128	X	46 - 125	04/09/18 07:26	04/10/18 15:41	1
Nitrobenzene-d5	98		41 - 120	04/09/18 07:26	04/10/18 15:41	1
2-Fluorobiphenyl	101		44 - 121	04/09/18 07:26	04/10/18 15:41	1
2,4,6-Tribromophenol	93		25 - 139	04/09/18 07:26	04/10/18 15:41	1
Terphenyl-d14	112		35 - 160	04/09/18 07:26	04/10/18 15:41	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Arsenic	5.8		0.59	0.20	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Barium	65		0.59	0.067	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Beryllium	0.71		0.24	0.055	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Boron	6.1		2.9	0.27	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Cadmium	0.27	B	0.12	0.021	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Calcium	34000	B	12	2.0	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Chromium	15		0.59	0.29	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Cobalt	9.0		0.29	0.077	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Copper	17		0.59	0.17	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Iron	15000	B	12	6.1	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Lead	30		0.29	0.14	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Magnesium	20000		5.9	2.9	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Manganese	420		0.59	0.086	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Nickel	19		0.59	0.17	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Potassium	1300		29	10	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Selenium	0.83	B	0.59	0.35	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Silver	0.21	J	0.29	0.076	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Sodium	110		59	8.7	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Vanadium	18		0.29	0.070	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	1
Zinc	130		1.2	0.52	mg/Kg	☼	04/05/18 15:52	04/06/18 19:48	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		04/06/18 14:21	04/09/18 19:46	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/06/18 14:21	04/09/18 19:46	1
Boron	0.065	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 19:46	1

TestAmerica Chicago

Client Sample Results

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Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-5

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Lab Sample ID: 500-143305-11

Date Collected: 04/04/18 14:20

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 81.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0025	J	0.0050	0.0020	mg/L	-	04/06/18 14:21	04/09/18 19:46	1
Chromium	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:46	1
Cobalt	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:46	1
Iron	<0.40		0.40	0.20	mg/L	-	04/06/18 14:21	04/09/18 19:46	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	04/06/18 14:21	04/09/18 19:46	1
Manganese	0.19		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:46	1
Nickel	0.013	J B	0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:46	1
Selenium	<0.050		0.050	0.020	mg/L	-	04/06/18 14:21	04/09/18 19:46	1
Silver	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:46	1
Zinc	0.066	J	0.50	0.020	mg/L	-	04/06/18 14:21	04/09/18 19:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.35		0.025	0.010	mg/L	-	04/06/18 14:20	04/10/18 07:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	04/06/18 14:21	04/10/18 14:35	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	04/06/18 14:21	04/10/18 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	-	04/06/18 13:02	04/09/18 08:47	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.035		0.018	0.0060	mg/Kg	☼	04/05/18 14:15	04/06/18 09:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.3		0.2	0.2	SU	-		04/13/18 16:44	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-5

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-5

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

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

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.634.5200 Fax: 708.634.5211

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

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

Chain of Custody Record

Lab Job #: 500-143305
 Chain of Custody Number: EA15D-05
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter					Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other		
Project Name		Lab Project #		Parameter		# of Containers	Matrix	Voc	SVOC	Total TAC		TUP/SOM TAC metals	PT/4. Solid
Project Location/State		Lab PM		Parameter									
EE	176-001-1513	100934-0015-03	50013467										
Cook County, IL		Dwyer											
S. Cooper													
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Voc	SVOC	Total TAC	TUP/SOM TAC metals	PT/4. Solid		Comments
			Date	Time									
11		2274V-06-306 (0-7)	4/4/18	1420	2	S	X	X	X	X	X		
4/2/18													

Turnaround Time Required (Business Days)

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

Requested Due Date _____

Sample Disposal

Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>[Signature]</u> Company <u>EE</u> Date <u>4/4/18</u> Time <u>1515</u>	Received By <u>[Signature]</u> Company <u>TA</u> Date <u>4/4/18</u> Time <u>1515</u>	Lab Courier <input checked="" type="checkbox"/>
Relinquished By <u>P. Neal</u> Company <u>TA</u> Date <u>4/4/18</u> Time <u>1553</u>	Received By <u>[Signature]</u> Company <u>TA</u> Date <u>04/04/18</u> Time <u>1553</u>	Shipped <input type="checkbox"/>
Relinquished By _____ Company _____ Date _____ Time _____	Received By _____ Company _____ Date _____ Time _____	Hand Delivered <input type="checkbox"/>

Matrix Key

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

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-143305-5

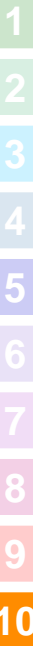
Login Number: 143305

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn 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	4.9c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





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

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

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

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

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

I. Source Location Information

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

Project Name: FAP 344 (Illinois Route 83) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
5400 W. 127th Street (ISGS #2274V-7)

City: Alsip State: IL Zip Code: 60803

County: Cook Township: Worth

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

Latitude: 41.66183 Longitude: -87.75459

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Tyler Petersen

Contact: Tyler Petersen

Email, if available: Tyler.Petersen@illinois.gov

Email, if available: Tyler.Petersen@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: FAP 344 (Illinois Route 83)

Latitude: 41.66183 Longitude: -87.75459

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 2274V-07-B01 was sampled within the construction zone adjacent to ISGS #2274V-7 (Country House Restaurant). Refer to PSI Report for ISGS #2274V-7 (Country House Restaurant) including Table 4-3, and Figures 4-2 and 4-4.

- 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 J129676-1.

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

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

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

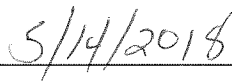
Company Name: Ecology and Environment, Inc.
 Street Address: 33 West Monroe Street
 City: Chicago State: IL Zip Code: 60603
 Phone: 312-578-9243

Neil J. Brown

Printed Name:



Licensed Professional Engineer or
Licensed Professional Geologist Signature:



Date:







Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15B

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 or not applicable.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.
- PID = Photoionization detector.
- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

- # = pH is less than 6.25 or greater than 9.0 standard units.
- ** = Headspace reading above background (outside of instrument margin of error).
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Headspace reading exceeds background levels
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #2274V-7 (Country House Restaurant)	Comparison Criteria					
		MACs			TACO		
BORING	2274V-07-B01	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2274V-07-B01 (0-1)						
MATRIX	Soil						
DEPTH (feet)	0-1						
pH	8.6						
VOCs (None Detected)							
SVOCs (mg/kg)							
Acenaphthene	0.040	570	--	--	4,700	120,000	--
Acenaphthylene	0.0077 J	--	--	--	--	--	--
Anthracene	0.19	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.82 J	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.81 J †	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	1.5 J †	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.30 J	--	--	--	--	--	--
Benzo(k)fluoranthene	0.53	9	--	--	9	1,700	--
Carbazole	0.15 J	0.6	--	--	32	6,200	--
Chrysene	1.0 J	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.082	0.09	0.42	0.2	0.42	17	--
Fluoranthene	2.1 J	3,100	--	--	3,100	82,000	--
Fluorene	0.055	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.30	0.9	1.6	0.9	1.6	170	--
Naphthalene	0.0064 J	1.8	--	--	170	1.8	--
Phenanthrene	1.1 J	--	--	--	--	--	--
Pyrene	1.8 J	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)							
Antimony	0.21 J	5	--	--	31	82	--
Arsenic	4.6	11.3	13	--	13	61	--
Barium	34	1,500	--	--	5,500	14,000	--
Beryllium	0.31	22	--	--	160	410	--
Boron	3.0	40	--	--	16,000	41,000	--
Cadmium	0.18	5.2	--	--	78	200	--
Calcium	4,800	--	--	--	--	--	--
Chromium	10	21	--	--	230	690	--
Cobalt	4.2	20	--	--	4,700	12,000	--
Copper	13	2,900	--	--	2,900	8,200	--
Iron	9,000	15,000	15,900	--	--	--	--
Lead	18	107	--	--	400	700	--
Magnesium	3,000	325,000	--	--	--	730,000	--
Manganese	130	630	636	--	1,600	4,100	--
Nickel	10	100	--	--	1,600	4,100	--
Potassium	690	--	--	--	--	--	--
Selenium	0.37 J	1.3	--	--	390	1,000	--
Sodium	300	--	--	--	--	--	--
Vanadium	14	550	--	--	550	1,400	--
Zinc	52	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)							
Barium	0.27 J	--	--	--	--	--	2
Cadmium	0.0022 J	--	--	--	--	--	0.005
Manganese	0.66 L	--	--	--	--	--	0.15
Zinc	0.073 J	--	--	--	--	--	5
SPLP Metals (mg/L)							
Manganese	0.20 L	--	--	--	--	--	0.15

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ANALYTICAL REPORT

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

TestAmerica Job ID: 500-129676-1
Client Project/Site: IDOT - IL 83 - WO 015

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/29/2017 4:37:59 PM

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

LINKS

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results through
TotalAccess

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www.testamericainc.com

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Job ID: 500-129676-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-129676-1

Comments

No additional comments.

Receipt

The samples were received on 6/15/2017 4:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 5.6° 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 500-390387 had 1 analyte outside control limits: 2,4-Dinitrophenol. These results have been reported and qualified. (LCS 500-390387/2-A)

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

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

Metals

Method(s) 6010B: The continuing calibration verification (CCV) associated with batch 500-390443 recovered above the upper control limit for Zinc. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: 2274V-07-B01 (0-1) (500-129676-1) and (500-129676-E-20-D).

Method(s) 6010B: The laboratory control sample (LCS) for preparation batch 500-390154 and 500-390310 and analytical batch 500-390443 recovered outside control limits for the following analyte: Iron. The analyte was biased high in the LCS and were not detected in the associated samples 2274V-07-B01 (0-1) (500-129676-1), (500-129676-E-20-D), (500-129676-E-20-E DU), (500-129676-E-20-F MS) and (500-129676-E-20-D SD) ; therefore, the data have been reported.

Method(s) 6010B: The method blank for preparation batch 500-390633 and analytical batch 500-390815 contained Zinc above the reporting limit (RL). Associated samples 2274V-07-B01 (0-1) (500-129676-1) and (500-129676-E-17-H) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

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

General Chemistry

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

Organic Prep

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

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-07-B01 (0-1)

Lab Sample ID: 500-129676-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0064	J	0.035	0.0054	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.0077	J	0.035	0.0046	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.040		0.035	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.055		0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	1.1		0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.19		0.035	0.0058	mg/Kg	1	☼	8270D	Total/NA
Carbazole	0.15	J	0.18	0.087	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	2.1		0.035	0.0065	mg/Kg	1	☼	8270D	Total/NA
Pyrene	1.8		0.035	0.0069	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.82		0.035	0.0047	mg/Kg	1	☼	8270D	Total/NA
Chrysene	1.0		0.035	0.0095	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1.5		0.035	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.53		0.035	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.81		0.035	0.0067	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.30		0.035	0.0090	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.082		0.035	0.0067	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.30		0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.21	J	0.96	0.19	mg/Kg	1	☼	6010B	Total/NA
Arsenic	4.6		0.48	0.16	mg/Kg	1	☼	6010B	Total/NA
Barium	34		0.48	0.055	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.31		0.19	0.045	mg/Kg	1	☼	6010B	Total/NA
Boron	3.0		2.4	0.22	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18		0.096	0.017	mg/Kg	1	☼	6010B	Total/NA
Calcium	4800	B	9.6	1.6	mg/Kg	1	☼	6010B	Total/NA
Chromium	10		0.48	0.24	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.2		0.24	0.063	mg/Kg	1	☼	6010B	Total/NA
Copper	13		0.48	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	9000	B	9.6	5.0	mg/Kg	1	☼	6010B	Total/NA
Lead	18		0.24	0.11	mg/Kg	1	☼	6010B	Total/NA
Magnesium	3000	B	4.8	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	130	B	0.48	0.070	mg/Kg	1	☼	6010B	Total/NA
Nickel	10		0.48	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	690		24	8.5	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.37	J	0.48	0.28	mg/Kg	1	☼	6010B	Total/NA
Sodium	300		48	7.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.24	0.057	mg/Kg	1	☼	6010B	Total/NA
Zinc	52	B	0.96	0.42	mg/Kg	1	☼	6010B	Total/NA
Barium	0.27	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.12	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0022	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.66		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.073	J ^	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.20		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.043	B	0.016	0.0054	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 83 - WO 015

TestAmerica Job ID: 500-129676-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-129676-1	2274V-07-B01 (0-1)	Solid	06/15/17 14:20	06/15/17 16:25

1

2

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-07-B01 (0-1)

Lab Sample ID: 500-129676-1

Date Collected: 06/15/17 14:20

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 93.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0082	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Benzene	<0.0019		0.0019	0.00048	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Bromodichloromethane	<0.0019		0.0019	0.00038	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Bromoform	<0.0019		0.0019	0.00055	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Bromomethane	<0.0047		0.0047	0.0018	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
2-Butanone (MEK)	<0.0047		0.0047	0.0021	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Carbon disulfide	<0.0047		0.0047	0.00097	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Carbon tetrachloride	<0.0019		0.0019	0.00054	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Chlorobenzene	<0.0019		0.0019	0.00069	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Chloroethane	<0.0047		0.0047	0.0014	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Chloroform	<0.0019		0.0019	0.00065	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Chloromethane	<0.0047		0.0047	0.0019	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00052	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00057	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Dibromochloromethane	<0.0019		0.0019	0.00061	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
1,1-Dichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
1,2-Dichloroethane	<0.0047		0.0047	0.0015	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
1,1-Dichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
1,2-Dichloropropane	<0.0019		0.0019	0.00048	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00066	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Ethylbenzene	<0.0019		0.0019	0.00090	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Methylene Chloride	<0.0047		0.0047	0.0018	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.0014	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00055	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Styrene	<0.0019		0.0019	0.00057	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00060	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Tetrachloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Toluene	<0.0019		0.0019	0.00047	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00083	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00066	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00063	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00080	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Trichloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Vinyl acetate	<0.0047		0.0047	0.0016	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Vinyl chloride	<0.0019		0.0019	0.00083	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1
Xylenes, Total	<0.0037		0.0037	0.00060	mg/Kg	☼	06/15/17 17:16	06/19/17 15:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		75 - 131	06/15/17 17:16	06/19/17 15:47	1
Dibromofluoromethane	92		75 - 126	06/15/17 17:16	06/19/17 15:47	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 134	06/15/17 17:16	06/19/17 15:47	1
Toluene-d8 (Surr)	88		75 - 124	06/15/17 17:16	06/19/17 15:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.077	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.052	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
1,3-Dichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-07-B01 (0-1)

Lab Sample ID: 500-129676-1

Date Collected: 06/15/17 14:20

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 93.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
2-Methylphenol	<0.18		0.18	0.056	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.040	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
N-Nitrosodi-n-propylamine	<0.070		0.070	0.043	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Hexachloroethane	<0.18		0.18	0.053	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
2-Chlorophenol	<0.18		0.18	0.059	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Nitrobenzene	<0.035		0.035	0.0087	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Isophorone	<0.18		0.18	0.039	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Naphthalene	0.0064	J	0.035	0.0054	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
2,4-Dichlorophenol	<0.35		0.35	0.083	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
4-Chloroaniline	<0.70		0.70	0.16	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
2,4,5-Trichlorophenol	<0.35		0.35	0.079	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Hexachlorocyclopentadiene	<0.70		0.70	0.20	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
2-Methylnaphthalene	<0.070		0.070	0.0064	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
2-Chloronaphthalene	<0.18		0.18	0.038	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
2,6-Dinitrotoluene	<0.18		0.18	0.068	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
2-Nitrophenol	<0.35		0.35	0.082	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
2,4-Dinitrophenol	<0.70	*	0.70	0.61	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Acenaphthylene	0.0077	J	0.035	0.0046	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
2,4-Dinitrotoluene	<0.18		0.18	0.055	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Acenaphthene	0.040		0.035	0.0063	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
4-Nitrophenol	<0.70		0.70	0.33	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Fluorene	0.055		0.035	0.0049	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Hexachlorobenzene	<0.070		0.070	0.0081	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Diethyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Pentachlorophenol	<0.70		0.70	0.56	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
N-Nitrosodiphenylamine	<0.18		0.18	0.041	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
4,6-Dinitro-2-methylphenol	<0.70		0.70	0.28	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Phenanthrene	1.1		0.035	0.0049	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Anthracene	0.19		0.035	0.0058	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Carbazole	0.15	J	0.18	0.087	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Di-n-butyl phthalate	<0.18		0.18	0.053	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Fluoranthene	2.1		0.035	0.0065	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Pyrene	1.8		0.035	0.0069	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Butyl benzyl phthalate	<0.18		0.18	0.066	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Benzo[a]anthracene	0.82		0.035	0.0047	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-07-B01 (0-1)

Lab Sample ID: 500-129676-1

Date Collected: 06/15/17 14:20

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 93.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	1.0		0.035	0.0095	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.064	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Di-n-octyl phthalate	<0.18		0.18	0.057	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Benzo[b]fluoranthene	1.5		0.035	0.0075	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Benzo[k]fluoranthene	0.53		0.035	0.010	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Benzo[a]pyrene	0.81		0.035	0.0067	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Indeno[1,2,3-cd]pyrene	0.30		0.035	0.0090	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Dibenz(a,h)anthracene	0.082		0.035	0.0067	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
Benzo[g,h,i]perylene	0.30		0.035	0.011	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1
3 & 4 Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	06/21/17 19:17	06/26/17 20:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	109		46 - 133	06/21/17 19:17	06/26/17 20:41	1
Phenol-d5	91		46 - 125	06/21/17 19:17	06/26/17 20:41	1
Nitrobenzene-d5	83		41 - 120	06/21/17 19:17	06/26/17 20:41	1
2-Fluorobiphenyl	78		44 - 121	06/21/17 19:17	06/26/17 20:41	1
2,4,6-Tribromophenol	60		25 - 139	06/21/17 19:17	06/26/17 20:41	1
Terphenyl-d14	102		35 - 160	06/21/17 19:17	06/26/17 20:41	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.21	J	0.96	0.19	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Arsenic	4.6		0.48	0.16	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Barium	34		0.48	0.055	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Beryllium	0.31		0.19	0.045	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Boron	3.0		2.4	0.22	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Cadmium	0.18		0.096	0.017	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Calcium	4800	B	9.6	1.6	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Chromium	10		0.48	0.24	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Cobalt	4.2		0.24	0.063	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Copper	13		0.48	0.13	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Iron	9000	B	9.6	5.0	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Lead	18		0.24	0.11	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Magnesium	3000	B	4.8	2.4	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Manganese	130	B	0.48	0.070	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Nickel	10		0.48	0.14	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Potassium	690		24	8.5	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Selenium	0.37	J	0.48	0.28	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Silver	<0.24		0.24	0.062	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Sodium	300		48	7.1	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Thallium	<0.48		0.48	0.24	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Vanadium	14		0.24	0.057	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1
Zinc	52	B	0.96	0.42	mg/Kg	☼	06/23/17 10:07	06/24/17 18:48	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.27	J	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 20:46	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/17 10:30	06/21/17 20:46	1
Boron	0.12	J B	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 20:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-07-B01 (0-1)

Lab Sample ID: 500-129676-1

Date Collected: 06/15/17 14:20

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 93.7

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	-	06/21/17 10:30	06/21/17 20:46	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 20:46	1
Cobalt	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 20:46	1
Iron	<0.40	*	0.40	0.20	mg/L	-	06/21/17 10:30	06/21/17 20:46	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/21/17 10:30	06/21/17 20:46	1
Manganese	0.66		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 20:46	1
Nickel	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 20:46	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/21/17 10:30	06/21/17 20:46	1
Silver	<0.025		0.025	0.010	mg/L	-	06/21/17 10:30	06/21/17 20:46	1
Zinc	0.073	J ^	0.50	0.020	mg/L	-	06/21/17 10:30	06/21/17 20:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.20		0.025	0.010	mg/L	-	06/22/17 07:36	06/23/17 00:52	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	-	06/21/17 10:30	06/23/17 14:40	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/21/17 10:30	06/23/17 14:40	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	-	06/21/17 11:45	06/22/17 10:18	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.043	B	0.016	0.0054	mg/Kg	☼	06/21/17 08:00	06/21/17 11:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.6		0.2	0.2	SU	-		06/28/17 11:46	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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.
F1	MS and/or MSD Recovery is outside acceptance limits.
E	Result exceeded calibration range.
F2	MS/MSD RPD exceeds control limits

Metals

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

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

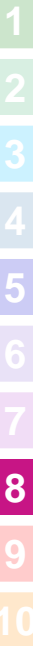
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/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

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

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

TestAmerica Job ID: 500-129676-1

Client Project/Site: IDOT - IL 83 - WO 015

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/29/2017 11:24:31 AM

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

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

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



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Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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.
F1	MS and/or MSD Recovery is outside acceptance limits.
E	Result exceeded calibration range.
F2	MS/MSD RPD exceeds control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.
^	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.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
F3	Duplicate RPD exceeds the control limit
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

GC/MS VOA

Prep Batch: 389853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1	2274V-07-B01 (0-1)	Total/NA	Solid	5035	
500-129676-2	2274V-04-B01 (0-2)	Total/NA	Solid	5035	
500-129676-3	2274V-03-B08 (0-4)	Total/NA	Solid	5035	
500-129676-4	2274V-03-B07 (0-4)	Total/NA	Solid	5035	
500-129676-5	2274V-03-B06 (0-8)	Total/NA	Solid	5035	
500-129676-6	2274V-03-B06 (8-16)	Total/NA	Solid	5035	
500-129676-7	2274V-03-B02 (0-4)	Total/NA	Solid	5035	
500-129676-8	2274V-03-B04 (0-1)	Total/NA	Solid	5035	
500-129676-9	2274V-03-B05 (0-2)	Total/NA	Solid	5035	
500-129676-10	2274V-03-B03 (0-2)	Total/NA	Solid	5035	
500-129676-11	2274V-03-B01 (0-8)	Total/NA	Solid	5035	
500-129676-12	2274V-03-B01 (8-16)	Total/NA	Solid	5035	
500-129676-13	2274V-03-B01 (8-16)D	Total/NA	Solid	5035	
500-129676-14	2274V-46-B01 (0-1)	Total/NA	Solid	5035	
500-129676-15	2274V-05-B02 (0-1)	Total/NA	Solid	5035	
500-129676-16	2274V-05-B01 (0-1)	Total/NA	Solid	5035	
500-129676-17	2274V-06-B04 (0-1)	Total/NA	Solid	5035	
500-129676-18	2274V-06-B03 (0-1)	Total/NA	Solid	5035	
500-129676-19	2274V-06-B02 (0-1)	Total/NA	Solid	5035	
500-129676-20	2274V-06-B01 (0-4)	Total/NA	Solid	5035	

Analysis Batch: 389939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1	2274V-07-B01 (0-1)	Total/NA	Solid	8260B	389853
500-129676-2	2274V-04-B01 (0-2)	Total/NA	Solid	8260B	389853
500-129676-3	2274V-03-B08 (0-4)	Total/NA	Solid	8260B	389853
500-129676-4	2274V-03-B07 (0-4)	Total/NA	Solid	8260B	389853
500-129676-5	2274V-03-B06 (0-8)	Total/NA	Solid	8260B	389853
500-129676-6	2274V-03-B06 (8-16)	Total/NA	Solid	8260B	389853
500-129676-7	2274V-03-B02 (0-4)	Total/NA	Solid	8260B	389853
500-129676-8	2274V-03-B04 (0-1)	Total/NA	Solid	8260B	389853
500-129676-9	2274V-03-B05 (0-2)	Total/NA	Solid	8260B	389853
500-129676-10	2274V-03-B03 (0-2)	Total/NA	Solid	8260B	389853
500-129676-11	2274V-03-B01 (0-8)	Total/NA	Solid	8260B	389853
500-129676-12	2274V-03-B01 (8-16)	Total/NA	Solid	8260B	389853
500-129676-13	2274V-03-B01 (8-16)D	Total/NA	Solid	8260B	389853
500-129676-14	2274V-46-B01 (0-1)	Total/NA	Solid	8260B	389853
500-129676-15	2274V-05-B02 (0-1)	Total/NA	Solid	8260B	389853
MB 500-389939/33	Method Blank	Total/NA	Solid	8260B	
LCS 500-389939/5	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-389939/6	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 390112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-16	2274V-05-B01 (0-1)	Total/NA	Solid	8260B	389853
500-129676-17	2274V-06-B04 (0-1)	Total/NA	Solid	8260B	389853
500-129676-18	2274V-06-B03 (0-1)	Total/NA	Solid	8260B	389853
500-129676-19	2274V-06-B02 (0-1)	Total/NA	Solid	8260B	389853
500-129676-20	2274V-06-B01 (0-4)	Total/NA	Solid	8260B	389853
MB 500-390112/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-390112/5	Lab Control Sample	Total/NA	Solid	8260B	

TestAmerica Chicago



QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

GC/MS VOA (Continued)

Analysis Batch: 390112 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 500-390112/6	Lab Control Sample Dup	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 390387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1	2274V-07-B01 (0-1)	Total/NA	Solid	3541	
500-129676-2	2274V-04-B01 (0-2)	Total/NA	Solid	3541	
500-129676-3	2274V-03-B08 (0-4)	Total/NA	Solid	3541	
500-129676-4	2274V-03-B07 (0-4)	Total/NA	Solid	3541	
500-129676-4 - DL	2274V-03-B07 (0-4)	Total/NA	Solid	3541	
500-129676-5	2274V-03-B06 (0-8)	Total/NA	Solid	3541	
500-129676-6	2274V-03-B06 (8-16)	Total/NA	Solid	3541	
500-129676-7	2274V-03-B02 (0-4)	Total/NA	Solid	3541	
500-129676-8	2274V-03-B04 (0-1)	Total/NA	Solid	3541	
500-129676-9	2274V-03-B05 (0-2)	Total/NA	Solid	3541	
500-129676-10	2274V-03-B03 (0-2)	Total/NA	Solid	3541	
500-129676-11	2274V-03-B01 (0-8)	Total/NA	Solid	3541	
500-129676-12	2274V-03-B01 (8-16)	Total/NA	Solid	3541	
500-129676-13	2274V-03-B01 (8-16)D	Total/NA	Solid	3541	
500-129676-14	2274V-46-B01 (0-1)	Total/NA	Solid	3541	
500-129676-14 - DL	2274V-46-B01 (0-1)	Total/NA	Solid	3541	
500-129676-15	2274V-05-B02 (0-1)	Total/NA	Solid	3541	
500-129676-16	2274V-05-B01 (0-1)	Total/NA	Solid	3541	
500-129676-17 - DL	2274V-06-B04 (0-1)	Total/NA	Solid	3541	
500-129676-17	2274V-06-B04 (0-1)	Total/NA	Solid	3541	
500-129676-18	2274V-06-B03 (0-1)	Total/NA	Solid	3541	
500-129676-19	2274V-06-B02 (0-1)	Total/NA	Solid	3541	
500-129676-20	2274V-06-B01 (0-4)	Total/NA	Solid	3541	
MB 500-390387/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-390387/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-129676-1 MS	2274V-07-B01 (0-1)	Total/NA	Solid	3541	
500-129676-1 MSD	2274V-07-B01 (0-1)	Total/NA	Solid	3541	

Analysis Batch: 390535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-2	2274V-04-B01 (0-2)	Total/NA	Solid	8270D	390387
500-129676-3	2274V-03-B08 (0-4)	Total/NA	Solid	8270D	390387
500-129676-5	2274V-03-B06 (0-8)	Total/NA	Solid	8270D	390387
500-129676-6	2274V-03-B06 (8-16)	Total/NA	Solid	8270D	390387
500-129676-7	2274V-03-B02 (0-4)	Total/NA	Solid	8270D	390387
500-129676-8	2274V-03-B04 (0-1)	Total/NA	Solid	8270D	390387
500-129676-9	2274V-03-B05 (0-2)	Total/NA	Solid	8270D	390387
500-129676-10	2274V-03-B03 (0-2)	Total/NA	Solid	8270D	390387
500-129676-11	2274V-03-B01 (0-8)	Total/NA	Solid	8270D	390387
500-129676-12	2274V-03-B01 (8-16)	Total/NA	Solid	8270D	390387
500-129676-13	2274V-03-B01 (8-16)D	Total/NA	Solid	8270D	390387
500-129676-14	2274V-46-B01 (0-1)	Total/NA	Solid	8270D	390387
500-129676-18	2274V-06-B03 (0-1)	Total/NA	Solid	8270D	390387
500-129676-20	2274V-06-B01 (0-4)	Total/NA	Solid	8270D	390387

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

GC/MS Semi VOA (Continued)

Analysis Batch: 390535 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-390387/1-A	Method Blank	Total/NA	Solid	8270D	390387
LCS 500-390387/2-A	Lab Control Sample	Total/NA	Solid	8270D	390387

Analysis Batch: 390538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-4	2274V-03-B07 (0-4)	Total/NA	Solid	8270D	390387
500-129676-15	2274V-05-B02 (0-1)	Total/NA	Solid	8270D	390387
500-129676-16	2274V-05-B01 (0-1)	Total/NA	Solid	8270D	390387
500-129676-17	2274V-06-B04 (0-1)	Total/NA	Solid	8270D	390387
500-129676-19	2274V-06-B02 (0-1)	Total/NA	Solid	8270D	390387
500-129676-1 MS	2274V-07-B01 (0-1)	Total/NA	Solid	8270D	390387
500-129676-1 MSD	2274V-07-B01 (0-1)	Total/NA	Solid	8270D	390387

Analysis Batch: 390866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1	2274V-07-B01 (0-1)	Total/NA	Solid	8270D	390387
500-129676-4 - DL	2274V-03-B07 (0-4)	Total/NA	Solid	8270D	390387
500-129676-17 - DL	2274V-06-B04 (0-1)	Total/NA	Solid	8270D	390387

Analysis Batch: 391012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-14 - DL	2274V-46-B01 (0-1)	Total/NA	Solid	8270D	390387

GC Semi VOA

Prep Batch: 390013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-2	2274V-04-B01 (0-2)	Total/NA	Solid	8151A	
MB 500-390013/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 500-390013/2-A	Lab Control Sample	Total/NA	Solid	8151A	

Analysis Batch: 390492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-2	2274V-04-B01 (0-2)	Total/NA	Solid	8151A	390013
MB 500-390013/1-A	Method Blank	Total/NA	Solid	8151A	390013
LCS 500-390013/2-A	Lab Control Sample	Total/NA	Solid	8151A	390013

Prep Batch: 390818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-2	2274V-04-B01 (0-2)	Total/NA	Solid	3541	
MB 500-390818/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-390818/2-A	Lab Control Sample	Total/NA	Solid	3541	
LCS 500-390818/3-A	Lab Control Sample	Total/NA	Solid	3541	

Analysis Batch: 390835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-390818/1-A	Method Blank	Total/NA	Solid	8082A	390818
LCS 500-390818/3-A	Lab Control Sample	Total/NA	Solid	8082A	390818

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

GC Semi VOA (Continued)

Analysis Batch: 390875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-2	2274V-04-B01 (0-2)	Total/NA	Solid	8081B	390818
MB 500-390818/1-A	Method Blank	Total/NA	Solid	8081B	390818
LCS 500-390818/2-A	Lab Control Sample	Total/NA	Solid	8081B	390818

Analysis Batch: 390948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-2	2274V-04-B01 (0-2)	Total/NA	Solid	8082A	390818

Metals

Leach Batch: 390154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1	2274V-07-B01 (0-1)	TCLP	Solid	1311	
500-129676-2	2274V-04-B01 (0-2)	TCLP	Solid	1311	
500-129676-3	2274V-03-B08 (0-4)	TCLP	Solid	1311	
500-129676-4	2274V-03-B07 (0-4)	TCLP	Solid	1311	
500-129676-5	2274V-03-B06 (0-8)	TCLP	Solid	1311	
500-129676-6	2274V-03-B06 (8-16)	TCLP	Solid	1311	
500-129676-7	2274V-03-B02 (0-4)	TCLP	Solid	1311	
500-129676-8	2274V-03-B04 (0-1)	TCLP	Solid	1311	
500-129676-9	2274V-03-B05 (0-2)	TCLP	Solid	1311	
500-129676-10	2274V-03-B03 (0-2)	TCLP	Solid	1311	
500-129676-11	2274V-03-B01 (0-8)	TCLP	Solid	1311	
500-129676-12	2274V-03-B01 (8-16)	TCLP	Solid	1311	
500-129676-13	2274V-03-B01 (8-16)D	TCLP	Solid	1311	
500-129676-14	2274V-46-B01 (0-1)	TCLP	Solid	1311	
500-129676-15	2274V-05-B02 (0-1)	TCLP	Solid	1311	
500-129676-16	2274V-05-B01 (0-1)	TCLP	Solid	1311	
500-129676-17	2274V-06-B04 (0-1)	TCLP	Solid	1311	
500-129676-18	2274V-06-B03 (0-1)	TCLP	Solid	1311	
500-129676-19	2274V-06-B02 (0-1)	TCLP	Solid	1311	
500-129676-20	2274V-06-B01 (0-4)	TCLP	Solid	1311	
LB 500-390154/1-B	Method Blank	TCLP	Solid	1311	
LB 500-390154/1-C	Method Blank	TCLP	Solid	1311	
500-129676-1 MS	2274V-07-B01 (0-1)	TCLP	Solid	1311	
500-129676-20 MS	2274V-06-B01 (0-4)	TCLP	Solid	1311	
500-129676-1 DU	2274V-07-B01 (0-1)	TCLP	Solid	1311	
500-129676-20 DU	2274V-06-B01 (0-4)	TCLP	Solid	1311	

Leach Batch: 390159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1	2274V-07-B01 (0-1)	SPLP East	Solid	1312	
500-129676-2	2274V-04-B01 (0-2)	SPLP East	Solid	1312	
500-129676-3	2274V-03-B08 (0-4)	SPLP East	Solid	1312	
500-129676-4	2274V-03-B07 (0-4)	SPLP East	Solid	1312	
500-129676-5	2274V-03-B06 (0-8)	SPLP East	Solid	1312	
500-129676-6	2274V-03-B06 (8-16)	SPLP East	Solid	1312	
500-129676-7	2274V-03-B02 (0-4)	SPLP East	Solid	1312	
500-129676-8	2274V-03-B04 (0-1)	SPLP East	Solid	1312	
500-129676-9	2274V-03-B05 (0-2)	SPLP East	Solid	1312	

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Metals (Continued)

Leach Batch: 390159 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-10	2274V-03-B03 (0-2)	SPLP East	Solid	1312	
500-129676-11	2274V-03-B01 (0-8)	SPLP East	Solid	1312	
500-129676-12	2274V-03-B01 (8-16)	SPLP East	Solid	1312	
500-129676-13	2274V-03-B01 (8-16)D	SPLP East	Solid	1312	
500-129676-14	2274V-46-B01 (0-1)	SPLP East	Solid	1312	
500-129676-15	2274V-05-B02 (0-1)	SPLP East	Solid	1312	
500-129676-16	2274V-05-B01 (0-1)	SPLP East	Solid	1312	
500-129676-17	2274V-06-B04 (0-1)	SPLP East	Solid	1312	
500-129676-18	2274V-06-B03 (0-1)	SPLP East	Solid	1312	
500-129676-19	2274V-06-B02 (0-1)	SPLP East	Solid	1312	
500-129676-20	2274V-06-B01 (0-4)	SPLP East	Solid	1312	
LB 500-390159/1-B	Method Blank	SPLP East	Solid	1312	
500-129676-20 MS	2274V-06-B01 (0-4)	SPLP East	Solid	1312	
500-129676-20 DU	2274V-06-B01 (0-4)	SPLP East	Solid	1312	

Prep Batch: 390191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1	2274V-07-B01 (0-1)	Total/NA	Solid	7471B	
500-129676-2	2274V-04-B01 (0-2)	Total/NA	Solid	7471B	
500-129676-3	2274V-03-B08 (0-4)	Total/NA	Solid	7471B	
500-129676-4	2274V-03-B07 (0-4)	Total/NA	Solid	7471B	
500-129676-5	2274V-03-B06 (0-8)	Total/NA	Solid	7471B	
500-129676-6	2274V-03-B06 (8-16)	Total/NA	Solid	7471B	
500-129676-7	2274V-03-B02 (0-4)	Total/NA	Solid	7471B	
500-129676-8	2274V-03-B04 (0-1)	Total/NA	Solid	7471B	
500-129676-9	2274V-03-B05 (0-2)	Total/NA	Solid	7471B	
500-129676-10	2274V-03-B03 (0-2)	Total/NA	Solid	7471B	
500-129676-11	2274V-03-B01 (0-8)	Total/NA	Solid	7471B	
500-129676-12	2274V-03-B01 (8-16)	Total/NA	Solid	7471B	
500-129676-13	2274V-03-B01 (8-16)D	Total/NA	Solid	7471B	
500-129676-14	2274V-46-B01 (0-1)	Total/NA	Solid	7471B	
500-129676-15	2274V-05-B02 (0-1)	Total/NA	Solid	7471B	
500-129676-16	2274V-05-B01 (0-1)	Total/NA	Solid	7471B	
500-129676-17	2274V-06-B04 (0-1)	Total/NA	Solid	7471B	
500-129676-18	2274V-06-B03 (0-1)	Total/NA	Solid	7471B	
500-129676-19	2274V-06-B02 (0-1)	Total/NA	Solid	7471B	
500-129676-20	2274V-06-B01 (0-4)	Total/NA	Solid	7471B	
MB 500-390191/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-390191/13-A	Lab Control Sample	Total/NA	Solid	7471B	
500-129676-1 MS	2274V-07-B01 (0-1)	Total/NA	Solid	7471B	
500-129676-1 MSD	2274V-07-B01 (0-1)	Total/NA	Solid	7471B	
500-129676-1 DU	2274V-07-B01 (0-1)	Total/NA	Solid	7471B	

Prep Batch: 390310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1	2274V-07-B01 (0-1)	TCLP	Solid	3010A	390154
500-129676-2	2274V-04-B01 (0-2)	TCLP	Solid	3010A	390154
500-129676-3	2274V-03-B08 (0-4)	TCLP	Solid	3010A	390154
500-129676-4	2274V-03-B07 (0-4)	TCLP	Solid	3010A	390154
500-129676-5	2274V-03-B06 (0-8)	TCLP	Solid	3010A	390154
500-129676-6	2274V-03-B06 (8-16)	TCLP	Solid	3010A	390154

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Metals (Continued)

Prep Batch: 390310 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-7	2274V-03-B02 (0-4)	TCLP	Solid	3010A	390154
500-129676-8	2274V-03-B04 (0-1)	TCLP	Solid	3010A	390154
500-129676-9	2274V-03-B05 (0-2)	TCLP	Solid	3010A	390154
500-129676-10	2274V-03-B03 (0-2)	TCLP	Solid	3010A	390154
500-129676-11	2274V-03-B01 (0-8)	TCLP	Solid	3010A	390154
500-129676-12	2274V-03-B01 (8-16)	TCLP	Solid	3010A	390154
500-129676-13	2274V-03-B01 (8-16)D	TCLP	Solid	3010A	390154
500-129676-14	2274V-46-B01 (0-1)	TCLP	Solid	3010A	390154
500-129676-15	2274V-05-B02 (0-1)	TCLP	Solid	3010A	390154
500-129676-16	2274V-05-B01 (0-1)	TCLP	Solid	3010A	390154
500-129676-17	2274V-06-B04 (0-1)	TCLP	Solid	3010A	390154
500-129676-18	2274V-06-B03 (0-1)	TCLP	Solid	3010A	390154
500-129676-19	2274V-06-B02 (0-1)	TCLP	Solid	3010A	390154
500-129676-20	2274V-06-B01 (0-4)	TCLP	Solid	3010A	390154
LB 500-390154/1-B	Method Blank	TCLP	Solid	3010A	390154
LCS 500-390310/2-A	Lab Control Sample	Total/NA	Solid	3010A	
500-129676-20 MS	2274V-06-B01 (0-4)	TCLP	Solid	3010A	390154
500-129676-20 DU	2274V-06-B01 (0-4)	TCLP	Solid	3010A	390154

Prep Batch: 390319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1	2274V-07-B01 (0-1)	TCLP	Solid	7470A	390154
500-129676-2	2274V-04-B01 (0-2)	TCLP	Solid	7470A	390154
500-129676-3	2274V-03-B08 (0-4)	TCLP	Solid	7470A	390154
500-129676-4	2274V-03-B07 (0-4)	TCLP	Solid	7470A	390154
500-129676-5	2274V-03-B06 (0-8)	TCLP	Solid	7470A	390154
500-129676-6	2274V-03-B06 (8-16)	TCLP	Solid	7470A	390154
500-129676-7	2274V-03-B02 (0-4)	TCLP	Solid	7470A	390154
500-129676-8	2274V-03-B04 (0-1)	TCLP	Solid	7470A	390154
500-129676-9	2274V-03-B05 (0-2)	TCLP	Solid	7470A	390154
500-129676-10	2274V-03-B03 (0-2)	TCLP	Solid	7470A	390154
500-129676-11	2274V-03-B01 (0-8)	TCLP	Solid	7470A	390154
500-129676-12	2274V-03-B01 (8-16)	TCLP	Solid	7470A	390154
500-129676-13	2274V-03-B01 (8-16)D	TCLP	Solid	7470A	390154
500-129676-14	2274V-46-B01 (0-1)	TCLP	Solid	7470A	390154
500-129676-15	2274V-05-B02 (0-1)	TCLP	Solid	7470A	390154
500-129676-16	2274V-05-B01 (0-1)	TCLP	Solid	7470A	390154
500-129676-17	2274V-06-B04 (0-1)	TCLP	Solid	7470A	390154
500-129676-18	2274V-06-B03 (0-1)	TCLP	Solid	7470A	390154
500-129676-19	2274V-06-B02 (0-1)	TCLP	Solid	7470A	390154
500-129676-20	2274V-06-B01 (0-4)	TCLP	Solid	7470A	390154
LB 500-390154/1-C	Method Blank	TCLP	Solid	7470A	390154
MB 500-390319/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-390319/13-A	Lab Control Sample	Total/NA	Solid	7470A	
500-129676-1 MS	2274V-07-B01 (0-1)	TCLP	Solid	7470A	390154
500-129676-1 DU	2274V-07-B01 (0-1)	TCLP	Solid	7470A	390154

Analysis Batch: 390339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1	2274V-07-B01 (0-1)	Total/NA	Solid	7471B	390191
500-129676-2	2274V-04-B01 (0-2)	Total/NA	Solid	7471B	390191

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QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Metals (Continued)

Analysis Batch: 390339 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-3	2274V-03-B08 (0-4)	Total/NA	Solid	7471B	390191
500-129676-4	2274V-03-B07 (0-4)	Total/NA	Solid	7471B	390191
500-129676-5	2274V-03-B06 (0-8)	Total/NA	Solid	7471B	390191
500-129676-6	2274V-03-B06 (8-16)	Total/NA	Solid	7471B	390191
500-129676-7	2274V-03-B02 (0-4)	Total/NA	Solid	7471B	390191
500-129676-8	2274V-03-B04 (0-1)	Total/NA	Solid	7471B	390191
500-129676-9	2274V-03-B05 (0-2)	Total/NA	Solid	7471B	390191
500-129676-10	2274V-03-B03 (0-2)	Total/NA	Solid	7471B	390191
500-129676-11	2274V-03-B01 (0-8)	Total/NA	Solid	7471B	390191
500-129676-12	2274V-03-B01 (8-16)	Total/NA	Solid	7471B	390191
500-129676-13	2274V-03-B01 (8-16)D	Total/NA	Solid	7471B	390191
500-129676-14	2274V-46-B01 (0-1)	Total/NA	Solid	7471B	390191
500-129676-15	2274V-05-B02 (0-1)	Total/NA	Solid	7471B	390191
500-129676-16	2274V-05-B01 (0-1)	Total/NA	Solid	7471B	390191
500-129676-17	2274V-06-B04 (0-1)	Total/NA	Solid	7471B	390191
500-129676-18	2274V-06-B03 (0-1)	Total/NA	Solid	7471B	390191
500-129676-19	2274V-06-B02 (0-1)	Total/NA	Solid	7471B	390191
500-129676-20	2274V-06-B01 (0-4)	Total/NA	Solid	7471B	390191
MB 500-390191/12-A	Method Blank	Total/NA	Solid	7471B	390191
LCS 500-390191/13-A	Lab Control Sample	Total/NA	Solid	7471B	390191
500-129676-1 MS	2274V-07-B01 (0-1)	Total/NA	Solid	7471B	390191
500-129676-1 MSD	2274V-07-B01 (0-1)	Total/NA	Solid	7471B	390191
500-129676-1 DU	2274V-07-B01 (0-1)	Total/NA	Solid	7471B	390191

Prep Batch: 390427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1	2274V-07-B01 (0-1)	SPLP East	Solid	3010A	390159
500-129676-2	2274V-04-B01 (0-2)	SPLP East	Solid	3010A	390159
500-129676-3	2274V-03-B08 (0-4)	SPLP East	Solid	3010A	390159
500-129676-4	2274V-03-B07 (0-4)	SPLP East	Solid	3010A	390159
500-129676-5	2274V-03-B06 (0-8)	SPLP East	Solid	3010A	390159
500-129676-6	2274V-03-B06 (8-16)	SPLP East	Solid	3010A	390159
500-129676-7	2274V-03-B02 (0-4)	SPLP East	Solid	3010A	390159
500-129676-8	2274V-03-B04 (0-1)	SPLP East	Solid	3010A	390159
500-129676-9	2274V-03-B05 (0-2)	SPLP East	Solid	3010A	390159
500-129676-10	2274V-03-B03 (0-2)	SPLP East	Solid	3010A	390159
500-129676-11	2274V-03-B01 (0-8)	SPLP East	Solid	3010A	390159
500-129676-12	2274V-03-B01 (8-16)	SPLP East	Solid	3010A	390159
500-129676-13	2274V-03-B01 (8-16)D	SPLP East	Solid	3010A	390159
500-129676-14	2274V-46-B01 (0-1)	SPLP East	Solid	3010A	390159
500-129676-15	2274V-05-B02 (0-1)	SPLP East	Solid	3010A	390159
500-129676-16	2274V-05-B01 (0-1)	SPLP East	Solid	3010A	390159
500-129676-17	2274V-06-B04 (0-1)	SPLP East	Solid	3010A	390159
500-129676-18	2274V-06-B03 (0-1)	SPLP East	Solid	3010A	390159
500-129676-19	2274V-06-B02 (0-1)	SPLP East	Solid	3010A	390159
500-129676-20	2274V-06-B01 (0-4)	SPLP East	Solid	3010A	390159
LB 500-390159/1-B	Method Blank	SPLP East	Solid	3010A	390159
LCS 500-390427/2-A	Lab Control Sample	Total/NA	Solid	3010A	
500-129676-20 MS	2274V-06-B01 (0-4)	SPLP East	Solid	3010A	390159
500-129676-20 DU	2274V-06-B01 (0-4)	SPLP East	Solid	3010A	390159

TestAmerica Chicago



QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Metals (Continued)

Analysis Batch: 390443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1	2274V-07-B01 (0-1)	TCLP	Solid	6010B	390310
500-129676-2	2274V-04-B01 (0-2)	TCLP	Solid	6010B	390310
500-129676-3	2274V-03-B08 (0-4)	TCLP	Solid	6010B	390310
500-129676-4	2274V-03-B07 (0-4)	TCLP	Solid	6010B	390310
500-129676-5	2274V-03-B06 (0-8)	TCLP	Solid	6010B	390310
500-129676-6	2274V-03-B06 (8-16)	TCLP	Solid	6010B	390310
500-129676-7	2274V-03-B02 (0-4)	TCLP	Solid	6010B	390310
500-129676-8	2274V-03-B04 (0-1)	TCLP	Solid	6010B	390310
500-129676-9	2274V-03-B05 (0-2)	TCLP	Solid	6010B	390310
500-129676-10	2274V-03-B03 (0-2)	TCLP	Solid	6010B	390310
500-129676-11	2274V-03-B01 (0-8)	TCLP	Solid	6010B	390310
500-129676-12	2274V-03-B01 (8-16)	TCLP	Solid	6010B	390310
500-129676-13	2274V-03-B01 (8-16)D	TCLP	Solid	6010B	390310
500-129676-14	2274V-46-B01 (0-1)	TCLP	Solid	6010B	390310
500-129676-15	2274V-05-B02 (0-1)	TCLP	Solid	6010B	390310
500-129676-16	2274V-05-B01 (0-1)	TCLP	Solid	6010B	390310
500-129676-17	2274V-06-B04 (0-1)	TCLP	Solid	6010B	390310
500-129676-18	2274V-06-B03 (0-1)	TCLP	Solid	6010B	390310
500-129676-19	2274V-06-B02 (0-1)	TCLP	Solid	6010B	390310
500-129676-20	2274V-06-B01 (0-4)	TCLP	Solid	6010B	390310
LB 500-390154/1-B	Method Blank	TCLP	Solid	6010B	390310
LCS 500-390310/2-A	Lab Control Sample	Total/NA	Solid	6010B	390310
500-129676-20 MS	2274V-06-B01 (0-4)	TCLP	Solid	6010B	390310
500-129676-20 DU	2274V-06-B01 (0-4)	TCLP	Solid	6010B	390310

Analysis Batch: 390488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1	2274V-07-B01 (0-1)	TCLP	Solid	7470A	390319
500-129676-2	2274V-04-B01 (0-2)	TCLP	Solid	7470A	390319
500-129676-3	2274V-03-B08 (0-4)	TCLP	Solid	7470A	390319
500-129676-4	2274V-03-B07 (0-4)	TCLP	Solid	7470A	390319
500-129676-5	2274V-03-B06 (0-8)	TCLP	Solid	7470A	390319
500-129676-6	2274V-03-B06 (8-16)	TCLP	Solid	7470A	390319
500-129676-7	2274V-03-B02 (0-4)	TCLP	Solid	7470A	390319
500-129676-8	2274V-03-B04 (0-1)	TCLP	Solid	7470A	390319
500-129676-9	2274V-03-B05 (0-2)	TCLP	Solid	7470A	390319
500-129676-10	2274V-03-B03 (0-2)	TCLP	Solid	7470A	390319
500-129676-11	2274V-03-B01 (0-8)	TCLP	Solid	7470A	390319
500-129676-12	2274V-03-B01 (8-16)	TCLP	Solid	7470A	390319
500-129676-13	2274V-03-B01 (8-16)D	TCLP	Solid	7470A	390319
500-129676-14	2274V-46-B01 (0-1)	TCLP	Solid	7470A	390319
500-129676-15	2274V-05-B02 (0-1)	TCLP	Solid	7470A	390319
500-129676-16	2274V-05-B01 (0-1)	TCLP	Solid	7470A	390319
500-129676-17	2274V-06-B04 (0-1)	TCLP	Solid	7470A	390319
500-129676-18	2274V-06-B03 (0-1)	TCLP	Solid	7470A	390319
500-129676-19	2274V-06-B02 (0-1)	TCLP	Solid	7470A	390319
500-129676-20	2274V-06-B01 (0-4)	TCLP	Solid	7470A	390319
LB 500-390154/1-C	Method Blank	TCLP	Solid	7470A	390319
MB 500-390319/12-A	Method Blank	Total/NA	Solid	7470A	390319
LCS 500-390319/13-A	Lab Control Sample	Total/NA	Solid	7470A	390319
500-129676-1 MS	2274V-07-B01 (0-1)	TCLP	Solid	7470A	390319

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QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Metals (Continued)

Analysis Batch: 390488 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1 DU	2274V-07-B01 (0-1)	TCLP	Solid	7470A	390319

Analysis Batch: 390591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1	2274V-07-B01 (0-1)	SPLP East	Solid	6010B	390427
500-129676-2	2274V-04-B01 (0-2)	SPLP East	Solid	6010B	390427
500-129676-3	2274V-03-B08 (0-4)	SPLP East	Solid	6010B	390427
500-129676-4	2274V-03-B07 (0-4)	SPLP East	Solid	6010B	390427
500-129676-5	2274V-03-B06 (0-8)	SPLP East	Solid	6010B	390427
500-129676-6	2274V-03-B06 (8-16)	SPLP East	Solid	6010B	390427
500-129676-7	2274V-03-B02 (0-4)	SPLP East	Solid	6010B	390427
500-129676-8	2274V-03-B04 (0-1)	SPLP East	Solid	6010B	390427
500-129676-9	2274V-03-B05 (0-2)	SPLP East	Solid	6010B	390427
500-129676-10	2274V-03-B03 (0-2)	SPLP East	Solid	6010B	390427
500-129676-11	2274V-03-B01 (0-8)	SPLP East	Solid	6010B	390427
500-129676-12	2274V-03-B01 (8-16)	SPLP East	Solid	6010B	390427
500-129676-13	2274V-03-B01 (8-16)D	SPLP East	Solid	6010B	390427
500-129676-14	2274V-46-B01 (0-1)	SPLP East	Solid	6010B	390427
500-129676-15	2274V-05-B02 (0-1)	SPLP East	Solid	6010B	390427
500-129676-16	2274V-05-B01 (0-1)	SPLP East	Solid	6010B	390427
500-129676-17	2274V-06-B04 (0-1)	SPLP East	Solid	6010B	390427
500-129676-18	2274V-06-B03 (0-1)	SPLP East	Solid	6010B	390427
500-129676-19	2274V-06-B02 (0-1)	SPLP East	Solid	6010B	390427
500-129676-20	2274V-06-B01 (0-4)	SPLP East	Solid	6010B	390427
LB 500-390159/1-B	Method Blank	SPLP East	Solid	6010B	390427
LCS 500-390427/2-A	Lab Control Sample	Total/NA	Solid	6010B	390427
500-129676-20 MS	2274V-06-B01 (0-4)	SPLP East	Solid	6010B	390427
500-129676-20 DU	2274V-06-B01 (0-4)	SPLP East	Solid	6010B	390427

Prep Batch: 390633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1	2274V-07-B01 (0-1)	Total/NA	Solid	3050B	
500-129676-2	2274V-04-B01 (0-2)	Total/NA	Solid	3050B	
500-129676-3	2274V-03-B08 (0-4)	Total/NA	Solid	3050B	
500-129676-4	2274V-03-B07 (0-4)	Total/NA	Solid	3050B	
500-129676-5	2274V-03-B06 (0-8)	Total/NA	Solid	3050B	
500-129676-6	2274V-03-B06 (8-16)	Total/NA	Solid	3050B	
500-129676-7	2274V-03-B02 (0-4)	Total/NA	Solid	3050B	
500-129676-8	2274V-03-B04 (0-1)	Total/NA	Solid	3050B	
500-129676-9	2274V-03-B05 (0-2)	Total/NA	Solid	3050B	
500-129676-10	2274V-03-B03 (0-2)	Total/NA	Solid	3050B	
500-129676-11	2274V-03-B01 (0-8)	Total/NA	Solid	3050B	
500-129676-12	2274V-03-B01 (8-16)	Total/NA	Solid	3050B	
500-129676-13	2274V-03-B01 (8-16)D	Total/NA	Solid	3050B	
500-129676-14	2274V-46-B01 (0-1)	Total/NA	Solid	3050B	
500-129676-15	2274V-05-B02 (0-1)	Total/NA	Solid	3050B	
500-129676-16	2274V-05-B01 (0-1)	Total/NA	Solid	3050B	
500-129676-17	2274V-06-B04 (0-1)	Total/NA	Solid	3050B	
500-129676-18	2274V-06-B03 (0-1)	Total/NA	Solid	3050B	
500-129676-19	2274V-06-B02 (0-1)	Total/NA	Solid	3050B	
500-129676-20	2274V-06-B01 (0-4)	Total/NA	Solid	3050B	

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Metals (Continued)

Prep Batch: 390633 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-390633/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-390633/2-A	Lab Control Sample	Total/NA	Solid	3050B	
500-129676-17 MS	2274V-06-B04 (0-1)	Total/NA	Solid	3050B	
500-129676-17 MSD	2274V-06-B04 (0-1)	Total/NA	Solid	3050B	
500-129676-17 DU	2274V-06-B04 (0-1)	Total/NA	Solid	3050B	

Analysis Batch: 390815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1	2274V-07-B01 (0-1)	Total/NA	Solid	6010B	390633
500-129676-2	2274V-04-B01 (0-2)	Total/NA	Solid	6010B	390633
500-129676-3	2274V-03-B08 (0-4)	Total/NA	Solid	6010B	390633
500-129676-4	2274V-03-B07 (0-4)	Total/NA	Solid	6010B	390633
500-129676-5	2274V-03-B06 (0-8)	Total/NA	Solid	6010B	390633
500-129676-6	2274V-03-B06 (8-16)	Total/NA	Solid	6010B	390633
500-129676-7	2274V-03-B02 (0-4)	Total/NA	Solid	6010B	390633
500-129676-8	2274V-03-B04 (0-1)	Total/NA	Solid	6010B	390633
500-129676-9	2274V-03-B05 (0-2)	Total/NA	Solid	6010B	390633
500-129676-10	2274V-03-B03 (0-2)	Total/NA	Solid	6010B	390633
500-129676-11	2274V-03-B01 (0-8)	Total/NA	Solid	6010B	390633
500-129676-12	2274V-03-B01 (8-16)	Total/NA	Solid	6010B	390633
500-129676-13	2274V-03-B01 (8-16)D	Total/NA	Solid	6010B	390633
500-129676-14	2274V-46-B01 (0-1)	Total/NA	Solid	6010B	390633
500-129676-15	2274V-05-B02 (0-1)	Total/NA	Solid	6010B	390633
500-129676-16	2274V-05-B01 (0-1)	Total/NA	Solid	6010B	390633
500-129676-17	2274V-06-B04 (0-1)	Total/NA	Solid	6010B	390633
500-129676-18	2274V-06-B03 (0-1)	Total/NA	Solid	6010B	390633
500-129676-19	2274V-06-B02 (0-1)	Total/NA	Solid	6010B	390633
500-129676-20	2274V-06-B01 (0-4)	Total/NA	Solid	6010B	390633
MB 500-390633/1-A	Method Blank	Total/NA	Solid	6010B	390633
LCS 500-390633/2-A	Lab Control Sample	Total/NA	Solid	6010B	390633
500-129676-17 MS	2274V-06-B04 (0-1)	Total/NA	Solid	6010B	390633
500-129676-17 MSD	2274V-06-B04 (0-1)	Total/NA	Solid	6010B	390633
500-129676-17 DU	2274V-06-B04 (0-1)	Total/NA	Solid	6010B	390633

Analysis Batch: 390853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1	2274V-07-B01 (0-1)	TCLP	Solid	6020A	390310
500-129676-2	2274V-04-B01 (0-2)	TCLP	Solid	6020A	390310
500-129676-3	2274V-03-B08 (0-4)	TCLP	Solid	6020A	390310
500-129676-4	2274V-03-B07 (0-4)	TCLP	Solid	6020A	390310
500-129676-5	2274V-03-B06 (0-8)	TCLP	Solid	6020A	390310
500-129676-6	2274V-03-B06 (8-16)	TCLP	Solid	6020A	390310
500-129676-7	2274V-03-B02 (0-4)	TCLP	Solid	6020A	390310
500-129676-8	2274V-03-B04 (0-1)	TCLP	Solid	6020A	390310
500-129676-9	2274V-03-B05 (0-2)	TCLP	Solid	6020A	390310
500-129676-10	2274V-03-B03 (0-2)	TCLP	Solid	6020A	390310
500-129676-11	2274V-03-B01 (0-8)	TCLP	Solid	6020A	390310
500-129676-12	2274V-03-B01 (8-16)	TCLP	Solid	6020A	390310
500-129676-13	2274V-03-B01 (8-16)D	TCLP	Solid	6020A	390310
500-129676-14	2274V-46-B01 (0-1)	TCLP	Solid	6020A	390310
500-129676-15	2274V-05-B02 (0-1)	TCLP	Solid	6020A	390310

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Metals (Continued)

Analysis Batch: 390853 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-16	2274V-05-B01 (0-1)	TCLP	Solid	6020A	390310
500-129676-17	2274V-06-B04 (0-1)	TCLP	Solid	6020A	390310
500-129676-18	2274V-06-B03 (0-1)	TCLP	Solid	6020A	390310
500-129676-19	2274V-06-B02 (0-1)	TCLP	Solid	6020A	390310
500-129676-20	2274V-06-B01 (0-4)	TCLP	Solid	6020A	390310
LB 500-390154/1-B	Method Blank	TCLP	Solid	6020A	390310
LCS 500-390310/2-A	Lab Control Sample	Total/NA	Solid	6020A	390310
500-129676-20 MS	2274V-06-B01 (0-4)	TCLP	Solid	6020A	390310
500-129676-20 DU	2274V-06-B01 (0-4)	TCLP	Solid	6020A	390310

Prep Batch: 390855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-5	2274V-03-B06 (0-8)	Total/NA	Solid	3050B	
MB 500-390855/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-390855/2-A	Lab Control Sample	Total/NA	Solid	3050B	
500-129676-5 MS	2274V-03-B06 (0-8)	Total/NA	Solid	3050B	
500-129676-5 MSD	2274V-03-B06 (0-8)	Total/NA	Solid	3050B	
500-129676-5 DU	2274V-03-B06 (0-8)	Total/NA	Solid	3050B	

Analysis Batch: 390900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-2	2274V-04-B01 (0-2)	Total/NA	Solid	6010B	390633
500-129676-3	2274V-03-B08 (0-4)	Total/NA	Solid	6010B	390633
500-129676-4	2274V-03-B07 (0-4)	Total/NA	Solid	6010B	390633
500-129676-5	2274V-03-B06 (0-8)	Total/NA	Solid	6010B	390633
500-129676-6	2274V-03-B06 (8-16)	Total/NA	Solid	6010B	390633
500-129676-7	2274V-03-B02 (0-4)	Total/NA	Solid	6010B	390633
500-129676-8	2274V-03-B04 (0-1)	Total/NA	Solid	6010B	390633
500-129676-9	2274V-03-B05 (0-2)	Total/NA	Solid	6010B	390633
500-129676-10	2274V-03-B03 (0-2)	Total/NA	Solid	6010B	390633
500-129676-11	2274V-03-B01 (0-8)	Total/NA	Solid	6010B	390633
500-129676-12	2274V-03-B01 (8-16)	Total/NA	Solid	6010B	390633
500-129676-13	2274V-03-B01 (8-16)D	Total/NA	Solid	6010B	390633
500-129676-14	2274V-46-B01 (0-1)	Total/NA	Solid	6010B	390633
500-129676-15	2274V-05-B02 (0-1)	Total/NA	Solid	6010B	390633
500-129676-17	2274V-06-B04 (0-1)	Total/NA	Solid	6010B	390633
500-129676-20	2274V-06-B01 (0-4)	Total/NA	Solid	6010B	390633
MB 500-390633/1-A	Method Blank	Total/NA	Solid	6010B	390633
LCS 500-390633/2-A	Lab Control Sample	Total/NA	Solid	6010B	390633
500-129676-17 MS	2274V-06-B04 (0-1)	Total/NA	Solid	6010B	390633
500-129676-17 MSD	2274V-06-B04 (0-1)	Total/NA	Solid	6010B	390633
500-129676-17 DU	2274V-06-B04 (0-1)	Total/NA	Solid	6010B	390633

Analysis Batch: 390975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-5	2274V-03-B06 (0-8)	Total/NA	Solid	6010B	390855
MB 500-390855/1-A	Method Blank	Total/NA	Solid	6010B	390855
LCS 500-390855/2-A	Lab Control Sample	Total/NA	Solid	6010B	390855
500-129676-5 MS	2274V-03-B06 (0-8)	Total/NA	Solid	6010B	390855
500-129676-5 MSD	2274V-03-B06 (0-8)	Total/NA	Solid	6010B	390855
500-129676-5 DU	2274V-03-B06 (0-8)	Total/NA	Solid	6010B	390855

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

General Chemistry

Analysis Batch: 390104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1	2274V-07-B01 (0-1)	Total/NA	Solid	Moisture	
500-129676-2	2274V-04-B01 (0-2)	Total/NA	Solid	Moisture	
500-129676-3	2274V-03-B08 (0-4)	Total/NA	Solid	Moisture	
500-129676-4	2274V-03-B07 (0-4)	Total/NA	Solid	Moisture	
500-129676-5	2274V-03-B06 (0-8)	Total/NA	Solid	Moisture	
500-129676-6	2274V-03-B06 (8-16)	Total/NA	Solid	Moisture	
500-129676-7	2274V-03-B02 (0-4)	Total/NA	Solid	Moisture	
500-129676-8	2274V-03-B04 (0-1)	Total/NA	Solid	Moisture	
500-129676-9	2274V-03-B05 (0-2)	Total/NA	Solid	Moisture	
500-129676-10	2274V-03-B03 (0-2)	Total/NA	Solid	Moisture	
500-129676-11	2274V-03-B01 (0-8)	Total/NA	Solid	Moisture	
500-129676-12	2274V-03-B01 (8-16)	Total/NA	Solid	Moisture	
500-129676-13	2274V-03-B01 (8-16)D	Total/NA	Solid	Moisture	
500-129676-14	2274V-46-B01 (0-1)	Total/NA	Solid	Moisture	
500-129676-15	2274V-05-B02 (0-1)	Total/NA	Solid	Moisture	
500-129676-16	2274V-05-B01 (0-1)	Total/NA	Solid	Moisture	
500-129676-17	2274V-06-B04 (0-1)	Total/NA	Solid	Moisture	
500-129676-18	2274V-06-B03 (0-1)	Total/NA	Solid	Moisture	
500-129676-19	2274V-06-B02 (0-1)	Total/NA	Solid	Moisture	
500-129676-20	2274V-06-B01 (0-4)	Total/NA	Solid	Moisture	
500-129676-1 DU	2274V-07-B01 (0-1)	Total/NA	Solid	Moisture	

Analysis Batch: 391212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129676-1	2274V-07-B01 (0-1)	Total/NA	Solid	9045D	
500-129676-2	2274V-04-B01 (0-2)	Total/NA	Solid	9045D	
500-129676-3	2274V-03-B08 (0-4)	Total/NA	Solid	9045D	
500-129676-4	2274V-03-B07 (0-4)	Total/NA	Solid	9045D	
500-129676-5	2274V-03-B06 (0-8)	Total/NA	Solid	9045D	
500-129676-6	2274V-03-B06 (8-16)	Total/NA	Solid	9045D	
500-129676-7	2274V-03-B02 (0-4)	Total/NA	Solid	9045D	
500-129676-8	2274V-03-B04 (0-1)	Total/NA	Solid	9045D	
500-129676-9	2274V-03-B05 (0-2)	Total/NA	Solid	9045D	
500-129676-10	2274V-03-B03 (0-2)	Total/NA	Solid	9045D	
500-129676-11	2274V-03-B01 (0-8)	Total/NA	Solid	9045D	
500-129676-12	2274V-03-B01 (8-16)	Total/NA	Solid	9045D	
500-129676-13	2274V-03-B01 (8-16)D	Total/NA	Solid	9045D	
500-129676-14	2274V-46-B01 (0-1)	Total/NA	Solid	9045D	
500-129676-15	2274V-05-B02 (0-1)	Total/NA	Solid	9045D	
500-129676-16	2274V-05-B01 (0-1)	Total/NA	Solid	9045D	
500-129676-17	2274V-06-B04 (0-1)	Total/NA	Solid	9045D	
500-129676-18	2274V-06-B03 (0-1)	Total/NA	Solid	9045D	
500-129676-19	2274V-06-B02 (0-1)	Total/NA	Solid	9045D	
500-129676-20	2274V-06-B01 (0-4)	Total/NA	Solid	9045D	
500-129676-4 DU	2274V-03-B07 (0-4)	Total/NA	Solid	9045D	
500-129676-11 DU	2274V-03-B01 (0-8)	Total/NA	Solid	9045D	

TestAmerica Chicago



Surrogate Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (75-131)	DBFM (75-126)	12DCE (70-134)	TOL (75-124)
500-129676-1	2274V-07-B01 (0-1)	86	92	91	88
500-129676-2	2274V-04-B01 (0-2)	75	92	86	98
500-129676-3	2274V-03-B08 (0-4)	87	93	91	90
500-129676-4	2274V-03-B07 (0-4)	87	95	89	88
500-129676-5	2274V-03-B06 (0-8)	83	92	87	91
500-129676-6	2274V-03-B06 (8-16)	85	94	93	87
500-129676-7	2274V-03-B02 (0-4)	84	92	87	88
500-129676-8	2274V-03-B04 (0-1)	89	95	91	90
500-129676-9	2274V-03-B05 (0-2)	86	95	89	90
500-129676-10	2274V-03-B03 (0-2)	87	93	88	89
500-129676-11	2274V-03-B01 (0-8)	86	95	90	90
500-129676-12	2274V-03-B01 (8-16)	87	95	89	90
500-129676-13	2274V-03-B01 (8-16)D	83	91	82	94
500-129676-14	2274V-46-B01 (0-1)	85	90	89	88
500-129676-15	2274V-05-B02 (0-1)	85	94	92	87
500-129676-16	2274V-05-B01 (0-1)	86	91	89	89
500-129676-17	2274V-06-B04 (0-1)	85	93	92	89
500-129676-18	2274V-06-B03 (0-1)	85	92	91	89
500-129676-19	2274V-06-B02 (0-1)	87	92	88	90
500-129676-20	2274V-06-B01 (0-4)	87	92	92	91
LCS 500-389939/5	Lab Control Sample	89	92	85	90
LCS 500-390112/5	Lab Control Sample	88	89	81	91
LCSD 500-389939/6	Lab Control Sample Dup	88	90	83	90
LCSD 500-390112/6	Lab Control Sample Dup	87	91	86	91
MB 500-389939/33	Method Blank	86	90	83	89
MB 500-390112/7	Method Blank	88	91	82	89

Surrogate Legend

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

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (46-133)	PHL (46-125)	NBZ (41-120)	FBP (44-121)	TBP (25-139)	TPH (35-160)
500-129676-1	2274V-07-B01 (0-1)	109	91	83	78	60	102
500-129676-1 MS	2274V-07-B01 (0-1)	104	94	81	78	66	88
500-129676-1 MSD	2274V-07-B01 (0-1)	110	97	89	84	69	92
500-129676-2	2274V-04-B01 (0-2)	105	92	88	85	51	112
500-129676-3	2274V-03-B08 (0-4)	107	92	92	91	68	109
500-129676-4	2274V-03-B07 (0-4)	112	100	83	85	62	96
500-129676-4 - DL	2274V-03-B07 (0-4)	124	105	86	86	52	100
500-129676-5	2274V-03-B06 (0-8)	107	96	89	86	64	106
500-129676-6	2274V-03-B06 (8-16)	107	90	85	80	64	109
500-129676-7	2274V-03-B02 (0-4)	98	89	85	81	68	107

TestAmerica Chicago

Surrogate Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (46-133)	PHL (46-125)	NBZ (41-120)	FBP (44-121)	TBP (25-139)	TPH (35-160)
500-129676-8	2274V-03-B04 (0-1)	105	93	86	85	74	115
500-129676-9	2274V-03-B05 (0-2)	102	91	87	80	67	98
500-129676-10	2274V-03-B03 (0-2)	104	94	86	84	75	105
500-129676-11	2274V-03-B01 (0-8)	105	95	85	82	72	107
500-129676-12	2274V-03-B01 (8-16)	96	89	78	77	74	106
500-129676-13	2274V-03-B01 (8-16)D	108	95	86	83	72	107
500-129676-14	2274V-46-B01 (0-1)	99	87	83	82	77	114
500-129676-14 - DL	2274V-46-B01 (0-1)	82	87	72	79	69	93
500-129676-15	2274V-05-B02 (0-1)	98	91	73	74	66	83
500-129676-16	2274V-05-B01 (0-1)	103	93	77	80	73	112
500-129676-17	2274V-06-B04 (0-1)	106	96	78	78	73	123
500-129676-17 - DL	2274V-06-B04 (0-1)	107	103	82	81	64	119
500-129676-18	2274V-06-B03 (0-1)	103	91	82	80	73	102
500-129676-19	2274V-06-B02 (0-1)	108	100	85	84	73	102
500-129676-20	2274V-06-B01 (0-4)	111	101	94	87	72	114
LCS 500-390387/2-A	Lab Control Sample	94	86	85	79	66	98
MB 500-390387/1-A	Method Blank	102	89	89	83	64	112

Surrogate Legend

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

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB1 (33-148)	TCX1 (30-121)
500-129676-2	2274V-04-B01 (0-2)	82	75
LCS 500-390818/2-A	Lab Control Sample	87	93
MB 500-390818/1-A	Method Blank	102	90

Surrogate Legend

DCB = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX2 (49-129)	DCB2 (37-121)
500-129676-2	2274V-04-B01 (0-2)	94	98
LCS 500-390818/3-A	Lab Control Sample	82	95
MB 500-390818/1-A	Method Blank	93	106

TestAmerica Chicago

Surrogate Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPA1 (25-120)
500-129676-2	2274V-04-B01 (0-2)	59
LCS 500-390013/2-A	Lab Control Sample	60
MB 500-390013/1-A	Method Blank	60

Surrogate Legend

DCPA = DCAA

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: MB 500-389939/33
Matrix: Solid
Analysis Batch: 389939

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			06/19/17 13:14	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			06/19/17 13:14	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			06/19/17 13:14	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			06/19/17 13:14	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			06/19/17 13:14	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			06/19/17 13:14	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			06/19/17 13:14	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			06/19/17 13:14	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			06/19/17 13:14	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			06/19/17 13:14	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			06/19/17 13:14	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			06/19/17 13:14	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			06/19/17 13:14	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			06/19/17 13:14	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			06/19/17 13:14	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			06/19/17 13:14	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			06/19/17 13:14	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			06/19/17 13:14	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			06/19/17 13:14	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg			06/19/17 13:14	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			06/19/17 13:14	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			06/19/17 13:14	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			06/19/17 13:14	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			06/19/17 13:14	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			06/19/17 13:14	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			06/19/17 13:14	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			06/19/17 13:14	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			06/19/17 13:14	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			06/19/17 13:14	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			06/19/17 13:14	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			06/19/17 13:14	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			06/19/17 13:14	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			06/19/17 13:14	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			06/19/17 13:14	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			06/19/17 13:14	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			06/19/17 13:14	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			06/19/17 13:14	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	86		75 - 131		06/19/17 13:14	1
Dibromofluoromethane	90		75 - 126		06/19/17 13:14	1
1,2-Dichloroethane-d4 (Surr)	83		70 - 134		06/19/17 13:14	1
Toluene-d8 (Surr)	89		75 - 124		06/19/17 13:14	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: LCS 500-389939/5
Matrix: Solid
Analysis Batch: 389939

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0376		mg/Kg		75	40 - 150
Benzene	0.0500	0.0456		mg/Kg		91	70 - 125
Bromodichloromethane	0.0500	0.0461		mg/Kg		92	67 - 129
Bromoform	0.0500	0.0441		mg/Kg		88	68 - 136
Bromomethane	0.0500	0.0466		mg/Kg		93	70 - 130
2-Butanone (MEK)	0.0500	0.0368		mg/Kg		74	47 - 138
Carbon disulfide	0.0500	0.0440		mg/Kg		88	70 - 129
Carbon tetrachloride	0.0500	0.0470		mg/Kg		94	75 - 125
Chlorobenzene	0.0500	0.0455		mg/Kg		91	50 - 150
Chloroethane	0.0500	0.0436		mg/Kg		87	75 - 125
Chloroform	0.0500	0.0471		mg/Kg		94	57 - 135
Chloromethane	0.0500	0.0501		mg/Kg		100	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0472		mg/Kg		94	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0423		mg/Kg		85	70 - 125
Dibromochloromethane	0.0500	0.0463		mg/Kg		93	69 - 125
1,1-Dichloroethane	0.0500	0.0467		mg/Kg		93	70 - 125
1,2-Dichloroethane	0.0500	0.0460		mg/Kg		92	70 - 130
1,1-Dichloroethene	0.0500	0.0440		mg/Kg		88	70 - 120
1,2-Dichloropropane	0.0500	0.0465		mg/Kg		93	70 - 125
Ethylbenzene	0.0500	0.0456		mg/Kg		91	61 - 136
2-Hexanone	0.0500	0.0374		mg/Kg		75	48 - 146
Methylene Chloride	0.0500	0.0452		mg/Kg		90	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0382		mg/Kg		76	50 - 148
Methyl tert-butyl ether	0.0500	0.0483		mg/Kg		97	50 - 140
Styrene	0.0500	0.0452		mg/Kg		90	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0455		mg/Kg		91	70 - 122
Tetrachloroethene	0.0500	0.0447		mg/Kg		89	70 - 124
Toluene	0.0500	0.0440		mg/Kg		88	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0461		mg/Kg		92	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0415		mg/Kg		83	70 - 125
1,1,1-Trichloroethane	0.0500	0.0458		mg/Kg		92	70 - 128
1,1,2-Trichloroethane	0.0500	0.0455		mg/Kg		91	70 - 125
Trichloroethene	0.0500	0.0461		mg/Kg		92	70 - 125
Vinyl acetate	0.0500	0.0376		mg/Kg		75	40 - 153
Vinyl chloride	0.0500	0.0475		mg/Kg		95	70 - 125
Xylenes, Total	0.100	0.0907		mg/Kg		91	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	89		75 - 131
Dibromofluoromethane	92		75 - 126
1,2-Dichloroethane-d4 (Surr)	85		70 - 134
Toluene-d8 (Surr)	90		75 - 124

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: LCSD 500-389939/6
Matrix: Solid
Analysis Batch: 389939

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	RPD Limit
Acetone	0.0500	0.0397		mg/Kg		79	40 - 150	5	30	
Benzene	0.0500	0.0456		mg/Kg		91	70 - 125	0	30	
Bromodichloromethane	0.0500	0.0460		mg/Kg		92	67 - 129	0	30	
Bromoform	0.0500	0.0417		mg/Kg		83	68 - 136	6	30	
Bromomethane	0.0500	0.0485		mg/Kg		97	70 - 130	4	30	
2-Butanone (MEK)	0.0500	0.0320		mg/Kg		64	47 - 138	14	30	
Carbon disulfide	0.0500	0.0447		mg/Kg		89	70 - 129	2	30	
Carbon tetrachloride	0.0500	0.0486		mg/Kg		97	75 - 125	3	30	
Chlorobenzene	0.0500	0.0458		mg/Kg		92	50 - 150	1	30	
Chloroethane	0.0500	0.0457		mg/Kg		91	75 - 125	5	30	
Chloroform	0.0500	0.0479		mg/Kg		96	57 - 135	2	30	
Chloromethane	0.0500	0.0501		mg/Kg		100	70 - 125	0	30	
cis-1,2-Dichloroethene	0.0500	0.0485		mg/Kg		97	70 - 125	3	30	
cis-1,3-Dichloropropene	0.0500	0.0406		mg/Kg		81	70 - 125	4	30	
Dibromochloromethane	0.0500	0.0434		mg/Kg		87	69 - 125	6	30	
1,1-Dichloroethane	0.0500	0.0468		mg/Kg		94	70 - 125	0	30	
1,2-Dichloroethane	0.0500	0.0443		mg/Kg		89	70 - 130	4	30	
1,1-Dichloroethene	0.0500	0.0437		mg/Kg		87	70 - 120	1	30	
1,2-Dichloropropane	0.0500	0.0466		mg/Kg		93	70 - 125	0	30	
Ethylbenzene	0.0500	0.0451		mg/Kg		90	61 - 136	1	30	
2-Hexanone	0.0500	0.0337		mg/Kg		67	48 - 146	10	30	
Methylene Chloride	0.0500	0.0465		mg/Kg		93	70 - 126	3	30	
4-Methyl-2-pentanone (MIBK)	0.0500	0.0325		mg/Kg		65	50 - 148	16	30	
Methyl tert-butyl ether	0.0500	0.0465		mg/Kg		93	50 - 140	4	30	
Styrene	0.0500	0.0449		mg/Kg		90	70 - 125	1	30	
1,1,2,2-Tetrachloroethane	0.0500	0.0418		mg/Kg		84	70 - 122	9	30	
Tetrachloroethene	0.0500	0.0430		mg/Kg		86	70 - 124	4	30	
Toluene	0.0500	0.0437		mg/Kg		87	70 - 125	1	30	
trans-1,2-Dichloroethene	0.0500	0.0463		mg/Kg		93	70 - 125	0	30	
trans-1,3-Dichloropropene	0.0500	0.0397		mg/Kg		79	70 - 125	5	30	
1,1,1-Trichloroethane	0.0500	0.0470		mg/Kg		94	70 - 128	3	30	
1,1,2-Trichloroethane	0.0500	0.0420		mg/Kg		84	70 - 125	8	30	
Trichloroethene	0.0500	0.0460		mg/Kg		92	70 - 125	0	30	
Vinyl acetate	0.0500	0.0353		mg/Kg		71	40 - 153	6	30	
Vinyl chloride	0.0500	0.0471		mg/Kg		94	70 - 125	1	30	
Xylenes, Total	0.100	0.0904		mg/Kg		90	53 - 147	0	30	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	88		75 - 131
Dibromofluoromethane	90		75 - 126
1,2-Dichloroethane-d4 (Surr)	83		70 - 134
Toluene-d8 (Surr)	90		75 - 124

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: MB 500-390112/7
Matrix: Solid
Analysis Batch: 390112

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			06/20/17 11:41	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			06/20/17 11:41	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			06/20/17 11:41	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			06/20/17 11:41	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			06/20/17 11:41	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			06/20/17 11:41	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			06/20/17 11:41	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			06/20/17 11:41	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			06/20/17 11:41	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			06/20/17 11:41	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			06/20/17 11:41	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			06/20/17 11:41	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			06/20/17 11:41	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			06/20/17 11:41	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			06/20/17 11:41	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			06/20/17 11:41	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			06/20/17 11:41	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			06/20/17 11:41	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			06/20/17 11:41	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg			06/20/17 11:41	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			06/20/17 11:41	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			06/20/17 11:41	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			06/20/17 11:41	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			06/20/17 11:41	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			06/20/17 11:41	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			06/20/17 11:41	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			06/20/17 11:41	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			06/20/17 11:41	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			06/20/17 11:41	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			06/20/17 11:41	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			06/20/17 11:41	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			06/20/17 11:41	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			06/20/17 11:41	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			06/20/17 11:41	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			06/20/17 11:41	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			06/20/17 11:41	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			06/20/17 11:41	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	88		75 - 131		06/20/17 11:41	1
Dibromofluoromethane	91		75 - 126		06/20/17 11:41	1
1,2-Dichloroethane-d4 (Surr)	82		70 - 134		06/20/17 11:41	1
Toluene-d8 (Surr)	89		75 - 124		06/20/17 11:41	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: LCS 500-390112/5
Matrix: Solid
Analysis Batch: 390112

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0373		mg/Kg		75	40 - 150
Benzene	0.0500	0.0453		mg/Kg		91	70 - 125
Bromodichloromethane	0.0500	0.0454		mg/Kg		91	67 - 129
Bromoform	0.0500	0.0421		mg/Kg		84	68 - 136
Bromomethane	0.0500	0.0462		mg/Kg		92	70 - 130
2-Butanone (MEK)	0.0500	0.0350		mg/Kg		70	47 - 138
Carbon disulfide	0.0500	0.0450		mg/Kg		90	70 - 129
Carbon tetrachloride	0.0500	0.0493		mg/Kg		99	75 - 125
Chlorobenzene	0.0500	0.0464		mg/Kg		93	50 - 150
Chloroethane	0.0500	0.0451		mg/Kg		90	75 - 125
Chloroform	0.0500	0.0463		mg/Kg		93	57 - 135
Chloromethane	0.0500	0.0488		mg/Kg		98	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0467		mg/Kg		93	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0413		mg/Kg		83	70 - 125
Dibromochloromethane	0.0500	0.0452		mg/Kg		90	69 - 125
1,1-Dichloroethane	0.0500	0.0461		mg/Kg		92	70 - 125
1,2-Dichloroethane	0.0500	0.0430		mg/Kg		86	70 - 130
1,1-Dichloroethene	0.0500	0.0446		mg/Kg		89	70 - 120
1,2-Dichloropropane	0.0500	0.0465		mg/Kg		93	70 - 125
Ethylbenzene	0.0500	0.0468		mg/Kg		94	61 - 136
2-Hexanone	0.0500	0.0364		mg/Kg		73	48 - 146
Methylene Chloride	0.0500	0.0462		mg/Kg		92	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0361		mg/Kg		72	50 - 148
Methyl tert-butyl ether	0.0500	0.0459		mg/Kg		92	50 - 140
Styrene	0.0500	0.0458		mg/Kg		92	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0442		mg/Kg		88	70 - 122
Tetrachloroethene	0.0500	0.0460		mg/Kg		92	70 - 124
Toluene	0.0500	0.0451		mg/Kg		90	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0475		mg/Kg		95	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0400		mg/Kg		80	70 - 125
1,1,1-Trichloroethane	0.0500	0.0475		mg/Kg		95	70 - 128
1,1,2-Trichloroethane	0.0500	0.0440		mg/Kg		88	70 - 125
Trichloroethene	0.0500	0.0451		mg/Kg		90	70 - 125
Vinyl acetate	0.0500	0.0403		mg/Kg		81	40 - 153
Vinyl chloride	0.0500	0.0472		mg/Kg		94	70 - 125
Xylenes, Total	0.100	0.0944		mg/Kg		94	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	88		75 - 131
Dibromofluoromethane	89		75 - 126
1,2-Dichloroethane-d4 (Surr)	81		70 - 134
Toluene-d8 (Surr)	91		75 - 124

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: LCSD 500-390112/6
Matrix: Solid
Analysis Batch: 390112

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	RPD Limit
							Limits	RPD		
Acetone	0.0500	0.0407		mg/Kg		81	40 - 150	9	30	
Benzene	0.0500	0.0538		mg/Kg		108	70 - 125	17	30	
Bromodichloromethane	0.0500	0.0551		mg/Kg		110	67 - 129	19	30	
Bromoform	0.0500	0.0528		mg/Kg		106	68 - 136	23	30	
Bromomethane	0.0500	0.0471		mg/Kg		94	70 - 130	2	30	
2-Butanone (MEK)	0.0500	0.0366		mg/Kg		73	47 - 138	4	30	
Carbon disulfide	0.0500	0.0537		mg/Kg		107	70 - 129	18	30	
Carbon tetrachloride	0.0500	0.0566		mg/Kg		113	75 - 125	14	30	
Chlorobenzene	0.0500	0.0535		mg/Kg		107	50 - 150	14	30	
Chloroethane	0.0500	0.0448		mg/Kg		90	75 - 125	1	30	
Chloroform	0.0500	0.0559		mg/Kg		112	57 - 135	19	30	
Chloromethane	0.0500	0.0501		mg/Kg		100	70 - 125	2	30	
cis-1,2-Dichloroethene	0.0500	0.0557		mg/Kg		111	70 - 125	18	30	
cis-1,3-Dichloropropene	0.0500	0.0497		mg/Kg		99	70 - 125	19	30	
Dibromochloromethane	0.0500	0.0549		mg/Kg		110	69 - 125	19	30	
1,1-Dichloroethane	0.0500	0.0546		mg/Kg		109	70 - 125	17	30	
1,2-Dichloroethane	0.0500	0.0512		mg/Kg		102	70 - 130	17	30	
1,1-Dichloroethene	0.0500	0.0524		mg/Kg		105	70 - 120	16	30	
1,2-Dichloropropane	0.0500	0.0556		mg/Kg		111	70 - 125	18	30	
Ethylbenzene	0.0500	0.0533		mg/Kg		107	61 - 136	13	30	
2-Hexanone	0.0500	0.0384		mg/Kg		77	48 - 146	5	30	
Methylene Chloride	0.0500	0.0539		mg/Kg		108	70 - 126	15	30	
4-Methyl-2-pentanone (MIBK)	0.0500	0.0390		mg/Kg		78	50 - 148	8	30	
Methyl tert-butyl ether	0.0500	0.0565		mg/Kg		113	50 - 140	21	30	
Styrene	0.0500	0.0532		mg/Kg		106	70 - 125	15	30	
1,1,2,2-Tetrachloroethane	0.0500	0.0540		mg/Kg		108	70 - 122	20	30	
Tetrachloroethene	0.0500	0.0507		mg/Kg		101	70 - 124	10	30	
Toluene	0.0500	0.0525		mg/Kg		105	70 - 125	15	30	
trans-1,2-Dichloroethene	0.0500	0.0560		mg/Kg		112	70 - 125	17	30	
trans-1,3-Dichloropropene	0.0500	0.0491		mg/Kg		98	70 - 125	20	30	
1,1,1-Trichloroethane	0.0500	0.0550		mg/Kg		110	70 - 128	15	30	
1,1,2-Trichloroethane	0.0500	0.0530		mg/Kg		106	70 - 125	19	30	
Trichloroethene	0.0500	0.0543		mg/Kg		109	70 - 125	19	30	
Vinyl acetate	0.0500	0.0404		mg/Kg		81	40 - 153	0	30	
Vinyl chloride	0.0500	0.0463		mg/Kg		93	70 - 125	2	30	
Xylenes, Total	0.100	0.106		mg/Kg		106	53 - 147	12	30	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	87		75 - 131
Dibromofluoromethane	91		75 - 126
1,2-Dichloroethane-d4 (Surr)	86		70 - 134
Toluene-d8 (Surr)	91		75 - 124

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: MB 500-390387/1-A
Matrix: Solid
Analysis Batch: 390535

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390387

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Isophorone	<0.17		0.17	0.037	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Carbazole	<0.17		0.17	0.083	mg/Kg		06/21/17 19:17	06/22/17 18:12	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: MB 500-390387/1-A
Matrix: Solid
Analysis Batch: 390535

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390387

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		06/21/17 19:17	06/22/17 18:12	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		06/21/17 19:17	06/22/17 18:12	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol	102		46 - 133	06/21/17 19:17	06/22/17 18:12	1
Phenol-d5	89		46 - 125	06/21/17 19:17	06/22/17 18:12	1
Nitrobenzene-d5	89		41 - 120	06/21/17 19:17	06/22/17 18:12	1
2-Fluorobiphenyl	83		44 - 121	06/21/17 19:17	06/22/17 18:12	1
2,4,6-Tribromophenol	64		25 - 139	06/21/17 19:17	06/22/17 18:12	1
Terphenyl-d14	112		35 - 160	06/21/17 19:17	06/22/17 18:12	1

Lab Sample ID: LCS 500-390387/2-A
Matrix: Solid
Analysis Batch: 390535

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390387

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Phenol	1.33	1.25		mg/Kg		94	56 - 122
Bis(2-chloroethyl)ether	1.33	1.10		mg/Kg		83	55 - 111
1,3-Dichlorobenzene	1.33	1.05		mg/Kg		78	60 - 110
1,4-Dichlorobenzene	1.33	1.03		mg/Kg		77	61 - 110
1,2-Dichlorobenzene	1.33	1.10		mg/Kg		82	62 - 110
2-Methylphenol	1.33	1.04		mg/Kg		78	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	0.949		mg/Kg		71	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.21		mg/Kg		91	56 - 118
Hexachloroethane	1.33	1.04		mg/Kg		78	61 - 110
2-Chlorophenol	1.33	1.14		mg/Kg		86	64 - 110
Nitrobenzene	1.33	1.25		mg/Kg		94	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.18		mg/Kg		88	60 - 112
1,2,4-Trichlorobenzene	1.33	1.06		mg/Kg		80	62 - 110
Isophorone	1.33	1.15		mg/Kg		87	55 - 110
2,4-Dimethylphenol	1.33	1.17		mg/Kg		88	60 - 110
Hexachlorobutadiene	1.33	0.985		mg/Kg		74	56 - 120
Naphthalene	1.33	1.18		mg/Kg		88	63 - 110
2,4-Dichlorophenol	1.33	1.02		mg/Kg		77	58 - 120

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: LCS 500-390387/2-A

Matrix: Solid

Analysis Batch: 390535

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 390387

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
4-Chloroaniline	1.33	1.15		mg/Kg		87	30 - 150
2,4,6-Trichlorophenol	1.33	1.09		mg/Kg		82	57 - 120
2,4,5-Trichlorophenol	1.33	1.10		mg/Kg		83	50 - 120
Hexachlorocyclopentadiene	1.33	1.20		mg/Kg		90	10 - 106
2-Methylnaphthalene	1.33	1.18		mg/Kg		89	62 - 110
2-Nitroaniline	1.33	1.23		mg/Kg		92	57 - 124
2-Chloronaphthalene	1.33	1.19		mg/Kg		89	64 - 110
4-Chloro-3-methylphenol	1.33	1.16		mg/Kg		87	61 - 114
2,6-Dinitrotoluene	1.33	1.21		mg/Kg		91	67 - 120
2-Nitrophenol	1.33	1.07		mg/Kg		81	60 - 120
3-Nitroaniline	1.33	1.17		mg/Kg		88	40 - 122
Dimethyl phthalate	1.33	1.14		mg/Kg		85	64 - 110
2,4-Dinitrophenol	2.67	<0.67 *		mg/Kg		8	10 - 100
Acenaphthylene	1.33	1.18		mg/Kg		89	60 - 110
2,4-Dinitrotoluene	1.33	1.11		mg/Kg		83	62 - 117
Acenaphthene	1.33	1.20		mg/Kg		90	58 - 110
Dibenzofuran	1.33	1.16		mg/Kg		87	64 - 110
4-Nitrophenol	2.67	2.44		mg/Kg		91	30 - 122
Fluorene	1.33	1.27		mg/Kg		95	62 - 120
4-Nitroaniline	1.33	1.09		mg/Kg		82	60 - 160
4-Bromophenyl phenyl ether	1.33	1.10		mg/Kg		82	63 - 110
Hexachlorobenzene	1.33	1.07		mg/Kg		81	55 - 117
Diethyl phthalate	1.33	1.11		mg/Kg		83	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.14		mg/Kg		85	63 - 110
Pentachlorophenol	2.67	2.16		mg/Kg		81	13 - 112
N-Nitrosodiphenylamine	1.33	1.26		mg/Kg		94	65 - 112
4,6-Dinitro-2-methylphenol	2.67	0.853		mg/Kg		32	10 - 110
Phenanthrene	1.33	1.24		mg/Kg		93	62 - 120
Anthracene	1.33	1.25		mg/Kg		94	63 - 110
Carbazole	1.33	1.26		mg/Kg		94	59 - 158
Di-n-butyl phthalate	1.33	1.22		mg/Kg		92	65 - 120
Fluoranthene	1.33	1.19		mg/Kg		89	62 - 120
Pyrene	1.33	1.42		mg/Kg		107	63 - 120
Butyl benzyl phthalate	1.33	1.41		mg/Kg		106	61 - 116
Benzo[a]anthracene	1.33	1.24		mg/Kg		93	63 - 110
Chrysene	1.33	1.32		mg/Kg		99	63 - 120
3,3'-Dichlorobenzidine	1.33	1.24		mg/Kg		93	49 - 112
Bis(2-ethylhexyl) phthalate	1.33	1.41		mg/Kg		106	63 - 118
Di-n-octyl phthalate	1.33	1.17		mg/Kg		88	63 - 119
Benzo[b]fluoranthene	1.33	1.21		mg/Kg		90	62 - 120
Benzo[k]fluoranthene	1.33	1.21		mg/Kg		91	65 - 120
Benzo[a]pyrene	1.33	1.22		mg/Kg		92	61 - 120
Indeno[1,2,3-cd]pyrene	1.33	1.18		mg/Kg		89	57 - 127
Dibenz(a,h)anthracene	1.33	1.19		mg/Kg		90	64 - 119
Benzo[g,h,i]perylene	1.33	1.17		mg/Kg		88	64 - 120
3 & 4 Methylphenol	1.33	1.13		mg/Kg		84	57 - 120

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: LCS 500-390387/2-A
Matrix: Solid
Analysis Batch: 390535

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390387

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	94		46 - 133
Phenol-d5	86		46 - 125
Nitrobenzene-d5	85		41 - 120
2-Fluorobiphenyl	79		44 - 121
2,4,6-Tribromophenol	66		25 - 139
Terphenyl-d14	98		35 - 160

Lab Sample ID: 500-129676-1 MS
Matrix: Solid
Analysis Batch: 390538

Client Sample ID: 2274V-07-B01 (0-1)
Prep Type: Total/NA
Prep Batch: 390387

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Phenol	<0.18		1.39	1.43		mg/Kg	☼	103	56 - 122
Bis(2-chloroethyl)ether	<0.18		1.39	1.18		mg/Kg	☼	84	55 - 111
1,3-Dichlorobenzene	<0.18		1.39	1.14		mg/Kg	☼	82	60 - 110
1,4-Dichlorobenzene	<0.18		1.39	1.15		mg/Kg	☼	83	61 - 110
1,2-Dichlorobenzene	<0.18		1.39	1.13		mg/Kg	☼	81	62 - 110
2-Methylphenol	<0.18		1.39	1.23		mg/Kg	☼	88	60 - 120
2,2'-oxybis[1-chloropropane]	<0.18		1.39	1.35		mg/Kg	☼	97	40 - 124
N-Nitrosodi-n-propylamine	<0.070		1.39	1.25		mg/Kg	☼	90	56 - 118
Hexachloroethane	<0.18		1.39	1.15		mg/Kg	☼	82	61 - 110
2-Chlorophenol	<0.18		1.39	1.26		mg/Kg	☼	90	64 - 110
Nitrobenzene	<0.035		1.39	1.28		mg/Kg	☼	92	60 - 116
Bis(2-chloroethoxy)methane	<0.18		1.39	1.25		mg/Kg	☼	89	60 - 112
1,2,4-Trichlorobenzene	<0.18		1.39	1.17		mg/Kg	☼	84	62 - 110
Isophorone	<0.18		1.39	1.21		mg/Kg	☼	87	55 - 110
2,4-Dimethylphenol	<0.35		1.39	1.25		mg/Kg	☼	90	60 - 110
Hexachlorobutadiene	<0.18		1.39	1.05		mg/Kg	☼	75	56 - 120
Naphthalene	0.0064	J	1.39	1.19		mg/Kg	☼	85	63 - 110
2,4-Dichlorophenol	<0.35		1.39	1.25		mg/Kg	☼	89	58 - 120
4-Chloroaniline	<0.70		1.39	0.559	J	mg/Kg	☼	40	30 - 150
2,4,6-Trichlorophenol	<0.35		1.39	1.19		mg/Kg	☼	85	57 - 120
2,4,5-Trichlorophenol	<0.35		1.39	1.22		mg/Kg	☼	87	50 - 120
Hexachlorocyclopentadiene	<0.70		1.39	<0.70	F1	mg/Kg	☼	0	10 - 106
2-Methylnaphthalene	<0.070		1.39	1.13		mg/Kg	☼	81	62 - 110
2-Nitroaniline	<0.18		1.39	1.42		mg/Kg	☼	102	57 - 124
2-Chloronaphthalene	<0.18		1.39	1.29		mg/Kg	☼	92	64 - 110
4-Chloro-3-methylphenol	<0.35		1.39	1.25		mg/Kg	☼	89	61 - 114
2,6-Dinitrotoluene	<0.18		1.39	1.27		mg/Kg	☼	91	67 - 120
2-Nitrophenol	<0.35		1.39	1.24		mg/Kg	☼	89	60 - 120
3-Nitroaniline	<0.35		1.39	1.03		mg/Kg	☼	74	40 - 122
Dimethyl phthalate	<0.18		1.39	1.21		mg/Kg	☼	87	64 - 110
2,4-Dinitrophenol	<0.70	*	2.79	1.74		mg/Kg	☼	62	10 - 100
Acenaphthylene	0.0077	J	1.39	1.27		mg/Kg	☼	91	60 - 110
2,4-Dinitrotoluene	<0.18		1.39	1.20		mg/Kg	☼	86	62 - 117
Acenaphthene	0.040		1.39	1.30		mg/Kg	☼	90	58 - 110
Dibenzofuran	<0.18		1.39	1.26		mg/Kg	☼	90	64 - 110
4-Nitrophenol	<0.70		2.79	1.95		mg/Kg	☼	70	30 - 122

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: 500-129676-1 MS

Matrix: Solid

Analysis Batch: 390538

Client Sample ID: 2274V-07-B01 (0-1)

Prep Type: Total/NA

Prep Batch: 390387

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	Limits
Fluorene	0.055		1.39	1.38		mg/Kg	☼	95	62 - 120	
4-Nitroaniline	<0.35		1.39	1.10		mg/Kg	☼	79	60 - 160	
4-Bromophenyl phenyl ether	<0.18		1.39	1.18		mg/Kg	☼	85	63 - 110	
Hexachlorobenzene	<0.070		1.39	1.17		mg/Kg	☼	84	55 - 117	
Diethyl phthalate	<0.18		1.39	1.29		mg/Kg	☼	92	58 - 120	
4-Chlorophenyl phenyl ether	<0.18		1.39	1.19		mg/Kg	☼	85	63 - 110	
Pentachlorophenol	<0.70		2.79	<0.70	F1	mg/Kg	☼	0	13 - 112	
N-Nitrosodiphenylamine	<0.18		1.39	1.32		mg/Kg	☼	94	65 - 112	
4,6-Dinitro-2-methylphenol	<0.70		2.79	2.02		mg/Kg	☼	72	10 - 110	
Phenanthrene	1.1		1.39	3.09	E F1	mg/Kg	☼	143	62 - 120	
Anthracene	0.19		1.39	1.58		mg/Kg	☼	100	63 - 110	
Carbazole	0.15	J	1.39	2.03		mg/Kg	☼	135	59 - 158	
Di-n-butyl phthalate	<0.18		1.39	1.30		mg/Kg	☼	93	65 - 120	
Fluoranthene	2.1		1.39	4.13	E F1	mg/Kg	☼	146	62 - 120	
Pyrene	1.8		1.39	3.68	E F1	mg/Kg	☼	136	63 - 120	
Butyl benzyl phthalate	<0.18		1.39	1.42		mg/Kg	☼	101	61 - 116	
Benzo[a]anthracene	0.82		1.39	2.61	E F1	mg/Kg	☼	128	63 - 110	
Chrysene	1.0		1.39	2.75	E F1	mg/Kg	☼	124	63 - 120	
3,3'-Dichlorobenzidine	<0.18		1.39	0.337	F1	mg/Kg	☼	24	49 - 112	
Bis(2-ethylhexyl) phthalate	<0.18		1.39	1.81	F1	mg/Kg	☼	130	63 - 118	
Di-n-octyl phthalate	<0.18		1.39	1.53		mg/Kg	☼	110	63 - 119	
Benzo[b]fluoranthene	1.5		1.39	3.43	E F1	mg/Kg	☼	135	62 - 120	
Benzo[k]fluoranthene	0.53		1.39	1.65		mg/Kg	☼	81	65 - 120	
Benzo[a]pyrene	0.81		1.39	2.36		mg/Kg	☼	112	61 - 120	
Indeno[1,2,3-cd]pyrene	0.30		1.39	1.46		mg/Kg	☼	83	57 - 127	
Dibenz(a,h)anthracene	0.082		1.39	1.08		mg/Kg	☼	72	64 - 119	
Benzo[g,h,i]perylene	0.30		1.39	1.47		mg/Kg	☼	84	64 - 120	
3 & 4 Methylphenol	<0.18		1.39	1.32		mg/Kg	☼	95	57 - 120	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	104		46 - 133
Phenol-d5	94		46 - 125
Nitrobenzene-d5	81		41 - 120
2-Fluorobiphenyl	78		44 - 121
2,4,6-Tribromophenol	66		25 - 139
Terphenyl-d14	88		35 - 160

Lab Sample ID: 500-129676-1 MSD

Matrix: Solid

Analysis Batch: 390538

Client Sample ID: 2274V-07-B01 (0-1)

Prep Type: Total/NA

Prep Batch: 390387

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit	
Phenol	<0.18		1.40	1.43		mg/Kg	☼	102	56 - 122		0	30
Bis(2-chloroethyl)ether	<0.18		1.40	1.18		mg/Kg	☼	84	55 - 111		0	30
1,3-Dichlorobenzene	<0.18		1.40	1.15		mg/Kg	☼	82	60 - 110		1	30
1,4-Dichlorobenzene	<0.18		1.40	1.16		mg/Kg	☼	83	61 - 110		0	30
1,2-Dichlorobenzene	<0.18		1.40	1.13		mg/Kg	☼	81	62 - 110		0	30
2-Methylphenol	<0.18		1.40	1.26		mg/Kg	☼	90	60 - 120		2	30

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: 500-129676-1 MSD

Matrix: Solid

Analysis Batch: 390538

Client Sample ID: 2274V-07-B01 (0-1)

Prep Type: Total/NA

Prep Batch: 390387

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
2,2'-oxybis[1-chloropropane]	<0.18		1.40	1.32		mg/Kg	☼	94	40 - 124	2	30
N-Nitrosodi-n-propylamine	<0.070		1.40	1.26		mg/Kg	☼	90	56 - 118	0	30
Hexachloroethane	<0.18		1.40	1.14		mg/Kg	☼	81	61 - 110	1	30
2-Chlorophenol	<0.18		1.40	1.28		mg/Kg	☼	92	64 - 110	2	30
Nitrobenzene	<0.035		1.40	1.36		mg/Kg	☼	97	60 - 116	6	30
Bis(2-chloroethoxy)methane	<0.18		1.40	1.28		mg/Kg	☼	92	60 - 112	3	30
1,2,4-Trichlorobenzene	<0.18		1.40	1.22		mg/Kg	☼	87	62 - 110	4	30
Isophorone	<0.18		1.40	1.26		mg/Kg	☼	90	55 - 110	4	30
2,4-Dimethylphenol	<0.35		1.40	1.30		mg/Kg	☼	93	60 - 110	4	30
Hexachlorobutadiene	<0.18		1.40	1.13		mg/Kg	☼	81	56 - 120	8	30
Naphthalene	0.0064	J	1.40	1.25		mg/Kg	☼	89	63 - 110	5	30
2,4-Dichlorophenol	<0.35		1.40	1.25		mg/Kg	☼	89	58 - 120	0	30
4-Chloroaniline	<0.70		1.40	0.767	F2	mg/Kg	☼	55	30 - 150	31	30
2,4,6-Trichlorophenol	<0.35		1.40	1.24		mg/Kg	☼	89	57 - 120	5	30
2,4,5-Trichlorophenol	<0.35		1.40	1.26		mg/Kg	☼	90	50 - 120	3	30
Hexachlorocyclopentadiene	<0.70		1.40	<0.70	F1	mg/Kg	☼	0	10 - 106	NC	30
2-Methylnaphthalene	<0.070		1.40	1.16		mg/Kg	☼	83	62 - 110	2	30
2-Nitroaniline	<0.18		1.40	1.45		mg/Kg	☼	103	57 - 124	2	30
2-Chloronaphthalene	<0.18		1.40	1.27		mg/Kg	☼	91	64 - 110	1	30
4-Chloro-3-methylphenol	<0.35		1.40	1.28		mg/Kg	☼	91	61 - 114	3	30
2,6-Dinitrotoluene	<0.18		1.40	1.30		mg/Kg	☼	93	67 - 120	3	30
2-Nitrophenol	<0.35		1.40	1.34		mg/Kg	☼	96	60 - 120	8	30
3-Nitroaniline	<0.35		1.40	1.21		mg/Kg	☼	86	40 - 122	16	30
Dimethyl phthalate	<0.18		1.40	1.23		mg/Kg	☼	88	64 - 110	1	30
2,4-Dinitrophenol	<0.70	*	2.80	1.59		mg/Kg	☼	57	10 - 100	9	30
Acenaphthylene	0.0077	J	1.40	1.31		mg/Kg	☼	93	60 - 110	3	30
2,4-Dinitrotoluene	<0.18		1.40	1.21		mg/Kg	☼	86	62 - 117	1	30
Acenaphthene	0.040		1.40	1.16		mg/Kg	☼	80	58 - 110	11	30
Dibenzofuran	<0.18		1.40	1.23		mg/Kg	☼	88	64 - 110	2	30
4-Nitrophenol	<0.70		2.80	2.03		mg/Kg	☼	72	30 - 122	4	30
Fluorene	0.055		1.40	1.26		mg/Kg	☼	86	62 - 120	9	30
4-Nitroaniline	<0.35		1.40	1.50	F2	mg/Kg	☼	107	60 - 160	31	30
4-Bromophenyl phenyl ether	<0.18		1.40	1.25		mg/Kg	☼	89	63 - 110	5	30
Hexachlorobenzene	<0.070		1.40	1.16		mg/Kg	☼	83	55 - 117	1	30
Diethyl phthalate	<0.18		1.40	1.29		mg/Kg	☼	92	58 - 120	0	30
4-Chlorophenyl phenyl ether	<0.18		1.40	1.21		mg/Kg	☼	86	63 - 110	1	30
Pentachlorophenol	<0.70		2.80	<0.70	F1	mg/Kg	☼	0	13 - 112	NC	30
N-Nitrosodiphenylamine	<0.18		1.40	1.38		mg/Kg	☼	99	65 - 112	5	30
4,6-Dinitro-2-methylphenol	<0.70		2.80	1.98		mg/Kg	☼	71	10 - 110	2	30
Phenanthrene	1.1		1.40	1.69	F1 F2	mg/Kg	☼	42	62 - 120	58	30
Anthracene	0.19		1.40	1.36		mg/Kg	☼	83	63 - 110	15	30
Carbazole	0.15	J	1.40	1.97		mg/Kg	☼	130	59 - 158	3	30
Di-n-butyl phthalate	<0.18		1.40	1.33		mg/Kg	☼	95	65 - 120	3	30
Fluoranthene	2.1		1.40	2.43	F1 F2	mg/Kg	☼	24	62 - 120	52	30
Pyrene	1.8		1.40	2.28	F1 F2	mg/Kg	☼	35	63 - 120	47	30
Butyl benzyl phthalate	<0.18		1.40	1.45		mg/Kg	☼	104	61 - 116	3	30
Benzo[a]anthracene	0.82		1.40	1.86	F2	mg/Kg	☼	75	63 - 110	33	30
Chrysene	1.0		1.40	2.03		mg/Kg	☼	72	63 - 120	30	30

TestAmerica Chicago



QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: 500-129676-1 MSD

Matrix: Solid

Analysis Batch: 390538

Client Sample ID: 2274V-07-B01 (0-1)

Prep Type: Total/NA

Prep Batch: 390387

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier						
3,3'-Dichlorobenzidine	<0.18		1.40	0.559	F1 F2	mg/Kg	☼	40	49 - 112	50	30
Bis(2-ethylhexyl) phthalate	<0.18		1.40	1.52		mg/Kg	☼	108	63 - 118	18	30
Di-n-octyl phthalate	<0.18		1.40	1.56		mg/Kg	☼	112	63 - 119	2	30
Benzo[b]fluoranthene	1.5		1.40	2.29	F1 F2	mg/Kg	☼	53	62 - 120	40	30
Benzo[k]fluoranthene	0.53		1.40	1.52		mg/Kg	☼	71	65 - 120	9	30
Benzo[a]pyrene	0.81		1.40	1.77		mg/Kg	☼	69	61 - 120	29	30
Indeno[1,2,3-cd]pyrene	0.30		1.40	1.14		mg/Kg	☼	60	57 - 127	24	30
Dibenz(a,h)anthracene	0.082		1.40	0.973		mg/Kg	☼	64	64 - 119	10	30
Benzo[g,h,i]perylene	0.30		1.40	1.08	F1	mg/Kg	☼	56	64 - 120	30	30
3 & 4 Methylphenol	<0.18		1.40	1.36		mg/Kg	☼	97	57 - 120	3	30

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
2-Fluorophenol	110		46 - 133
Phenol-d5	97		46 - 125
Nitrobenzene-d5	89		41 - 120
2-Fluorobiphenyl	84		44 - 121
2,4,6-Tribromophenol	69		25 - 139
Terphenyl-d14	92		35 - 160

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 500-390818/1-A

Matrix: Solid

Analysis Batch: 390875

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 390818

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin	<0.0017		0.0017	0.00069	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
alpha-BHC	<0.0017		0.0017	0.00042	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
alpha-Chlordane	<0.0017		0.0017	0.00085	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
beta-BHC	<0.0017		0.0017	0.00052	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
4,4'-DDD	<0.0017		0.0017	0.00033	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
4,4'-DDE	<0.0017		0.0017	0.00028	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
4,4'-DDT	<0.0017		0.0017	0.00088	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
delta-BHC	<0.0017		0.0017	0.00053	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
Dieldrin	<0.0017		0.0017	0.00023	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
Endosulfan I	<0.0017		0.0017	0.00073	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
Endosulfan II	<0.0017		0.0017	0.00027	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
Endosulfan sulfate	<0.0017		0.0017	0.00031	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
Endrin	<0.0017		0.0017	0.00023	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
Endrin aldehyde	<0.0017		0.0017	0.00028	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
Endrin ketone	<0.0017		0.0017	0.00038	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
gamma-BHC (Lindane)	<0.0017		0.0017	0.00036	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
gamma-Chlordane	<0.0017		0.0017	0.00044	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
Heptachlor	<0.0017		0.0017	0.00070	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
Heptachlor epoxide	<0.0017		0.0017	0.00059	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
Methoxychlor	<0.0083		0.0083	0.00032	mg/Kg		06/26/17 07:18	06/26/17 19:24	1
Toxaphene	<0.017		0.017	0.0070	mg/Kg		06/26/17 07:18	06/26/17 19:24	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 500-390818/1-A
Matrix: Solid
Analysis Batch: 390875

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390818

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl	102		33 - 148	06/26/17 07:18	06/26/17 19:24	1
Tetrachloro-m-xylene	90		30 - 121	06/26/17 07:18	06/26/17 19:24	1

Lab Sample ID: LCS 500-390818/2-A
Matrix: Solid
Analysis Batch: 390875

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390818

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aldrin	0.0133	0.0126		mg/Kg		95	52 - 122
alpha-BHC	0.0133	0.0134		mg/Kg		100	50 - 123
alpha-Chlordane	0.0133	0.0119		mg/Kg		89	52 - 129
beta-BHC	0.0133	0.0128		mg/Kg		96	44 - 140
4,4'-DDD	0.0133	0.0114		mg/Kg		85	47 - 137
4,4'-DDE	0.0133	0.0110		mg/Kg		82	50 - 130
4,4'-DDT	0.0133	0.0108		mg/Kg		81	46 - 143
delta-BHC	0.0133	0.0132		mg/Kg		99	57 - 125
Dieldrin	0.0133	0.0114		mg/Kg		85	51 - 133
Endosulfan I	0.0133	0.00854		mg/Kg		64	30 - 120
Endosulfan II	0.0133	0.00933		mg/Kg		70	30 - 120
Endosulfan sulfate	0.0133	0.0132		mg/Kg		99	42 - 150
Endrin	0.0133	0.0119		mg/Kg		89	43 - 144
Endrin aldehyde	0.0133	0.0114		mg/Kg		85	39 - 131
Endrin ketone	0.0133	0.0117		mg/Kg		88	51 - 135
gamma-BHC (Lindane)	0.0133	0.0131		mg/Kg		99	50 - 122
gamma-Chlordane	0.0133	0.0120		mg/Kg		90	52 - 132
Heptachlor	0.0133	0.0131		mg/Kg		99	53 - 129
Heptachlor epoxide	0.0133	0.0121		mg/Kg		91	50 - 139
Methoxychlor	0.0133	0.0114		mg/Kg		86	45 - 144

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	87		33 - 148
Tetrachloro-m-xylene	93		30 - 121

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-390818/1-A
Matrix: Solid
Analysis Batch: 390835

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390818

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.017		0.017	0.0059	mg/Kg		06/26/17 07:18	06/26/17 16:04	1
PCB-1221	<0.017		0.017	0.0073	mg/Kg		06/26/17 07:18	06/26/17 16:04	1
PCB-1232	<0.017		0.017	0.0073	mg/Kg		06/26/17 07:18	06/26/17 16:04	1
PCB-1242	<0.017		0.017	0.0055	mg/Kg		06/26/17 07:18	06/26/17 16:04	1
PCB-1248	<0.017		0.017	0.0066	mg/Kg		06/26/17 07:18	06/26/17 16:04	1
PCB-1254	<0.017		0.017	0.0036	mg/Kg		06/26/17 07:18	06/26/17 16:04	1
PCB-1260	<0.017		0.017	0.0082	mg/Kg		06/26/17 07:18	06/26/17 16:04	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 500-390818/1-A
Matrix: Solid
Analysis Batch: 390835

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390818

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	93		49 - 129	06/26/17 07:18	06/26/17 16:04	1
DCB Decachlorobiphenyl	106		37 - 121	06/26/17 07:18	06/26/17 16:04	1

Lab Sample ID: LCS 500-390818/3-A
Matrix: Solid
Analysis Batch: 390835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390818

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1260	0.167	0.147		mg/Kg		88	61 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	82		49 - 129
DCB Decachlorobiphenyl	95		37 - 121

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 500-390013/1-A
Matrix: Solid
Analysis Batch: 390492

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390013

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dicamba	<0.33		0.33	0.069	mg/Kg		06/19/17 14:26	06/22/17 19:04	10
Dichlorprop	<0.33		0.33	0.090	mg/Kg		06/19/17 14:26	06/22/17 19:04	10
2,4-D	<0.33		0.33	0.094	mg/Kg		06/19/17 14:26	06/22/17 19:04	10
Silvex (2,4,5-TP)	<0.33		0.33	0.085	mg/Kg		06/19/17 14:26	06/22/17 19:04	10
2,4,5-T	<0.33		0.33	0.081	mg/Kg		06/19/17 14:26	06/22/17 19:04	10
2,4-DB	<0.33		0.33	0.098	mg/Kg		06/19/17 14:26	06/22/17 19:04	10

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCAA	60		25 - 120	06/19/17 14:26	06/22/17 19:04	10

Lab Sample ID: LCS 500-390013/2-A
Matrix: Solid
Analysis Batch: 390492

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390013

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorprop	1.34	0.910		mg/Kg		68	25 - 110
2,4-D	1.33	0.872		mg/Kg		65	20 - 115
Silvex (2,4,5-TP)	1.34	0.908		mg/Kg		68	29 - 115
2,4,5-T	1.33	0.819		mg/Kg		61	25 - 115
2,4-DB	1.33	0.832		mg/Kg		62	20 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCAA	60		25 - 120

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Method: 6010B - Metals (ICP)

Lab Sample ID: LCS 500-390310/2-A
Matrix: Solid
Analysis Batch: 390443

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390310
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	0.500	0.530		mg/L		106	80 - 120
Beryllium	0.0500	0.0532		mg/L		106	80 - 120
Boron	1.00	0.931		mg/L		93	80 - 120
Cadmium	0.0500	0.0509		mg/L		102	80 - 120
Chromium	0.200	0.217		mg/L		108	80 - 120
Cobalt	0.500	0.530		mg/L		106	80 - 120
Iron	1.00	1.21	*	mg/L		121	80 - 120
Lead	0.100	0.102		mg/L		102	80 - 120
Manganese	0.500	0.542		mg/L		108	80 - 120
Nickel	0.500	0.529		mg/L		106	80 - 120
Selenium	0.100	0.0950		mg/L		95	80 - 120
Silver	0.0500	0.0511		mg/L		102	80 - 120
Zinc	0.500	0.561	^	mg/L		112	80 - 120

Lab Sample ID: LCS 500-390427/2-A
Matrix: Solid
Analysis Batch: 390591

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390427
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cadmium	0.0500	0.0513		mg/L		103	80 - 120
Lead	0.100	0.0970		mg/L		97	80 - 120
Manganese	0.500	0.501		mg/L		100	80 - 120
Nickel	0.500	0.503		mg/L		101	80 - 120

Lab Sample ID: MB 500-390633/1-A
Matrix: Solid
Analysis Batch: 390815

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390633

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.0		2.0	0.39	mg/Kg		06/23/17 10:07	06/24/17 18:33	1
Arsenic	<1.0		1.0	0.34	mg/Kg		06/23/17 10:07	06/24/17 18:33	1
Barium	<1.0		1.0	0.11	mg/Kg		06/23/17 10:07	06/24/17 18:33	1
Beryllium	<0.40		0.40	0.093	mg/Kg		06/23/17 10:07	06/24/17 18:33	1
Cadmium	<0.20		0.20	0.036	mg/Kg		06/23/17 10:07	06/24/17 18:33	1
Calcium	17.2	J	20	3.4	mg/Kg		06/23/17 10:07	06/24/17 18:33	1
Chromium	<1.0		1.0	0.50	mg/Kg		06/23/17 10:07	06/24/17 18:33	1
Cobalt	<0.50		0.50	0.13	mg/Kg		06/23/17 10:07	06/24/17 18:33	1
Copper	<1.0		1.0	0.28	mg/Kg		06/23/17 10:07	06/24/17 18:33	1
Iron	13.4	J	20	10	mg/Kg		06/23/17 10:07	06/24/17 18:33	1
Lead	<0.50		0.50	0.23	mg/Kg		06/23/17 10:07	06/24/17 18:33	1
Magnesium	8.71	J	10	5.0	mg/Kg		06/23/17 10:07	06/24/17 18:33	1
Manganese	0.392	J	1.0	0.15	mg/Kg		06/23/17 10:07	06/24/17 18:33	1
Nickel	<1.0		1.0	0.29	mg/Kg		06/23/17 10:07	06/24/17 18:33	1
Potassium	<50		50	18	mg/Kg		06/23/17 10:07	06/24/17 18:33	1
Selenium	<1.0		1.0	0.59	mg/Kg		06/23/17 10:07	06/24/17 18:33	1
Silver	<0.50		0.50	0.13	mg/Kg		06/23/17 10:07	06/24/17 18:33	1
Sodium	<100		100	15	mg/Kg		06/23/17 10:07	06/24/17 18:33	1
Thallium	<1.0		1.0	0.50	mg/Kg		06/23/17 10:07	06/24/17 18:33	1

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: MB 500-390633/1-A
Matrix: Solid
Analysis Batch: 390815

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390633

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	<0.50		0.50	0.12	mg/Kg		06/23/17 10:07	06/24/17 18:33	1
Zinc	7.10		2.0	0.88	mg/Kg		06/23/17 10:07	06/24/17 18:33	1

Lab Sample ID: MB 500-390633/1-A
Matrix: Solid
Analysis Batch: 390900

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390633

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<5.0		5.0	0.47	mg/Kg		06/23/17 10:07	06/26/17 11:10	1

Lab Sample ID: LCS 500-390633/2-A
Matrix: Solid
Analysis Batch: 390815

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390633

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	44.1		mg/Kg		88	80 - 120
Arsenic	10.0	8.48		mg/Kg		85	80 - 120
Barium	200	173		mg/Kg		86	80 - 120
Beryllium	5.00	4.47		mg/Kg		89	80 - 120
Cadmium	5.00	4.40		mg/Kg		88	80 - 120
Calcium	1000	893		mg/Kg		89	80 - 120
Chromium	20.0	17.6		mg/Kg		88	80 - 120
Cobalt	50.0	43.6		mg/Kg		87	80 - 120
Copper	25.0	22.3		mg/Kg		89	80 - 120
Iron	100	95.1		mg/Kg		95	80 - 120
Lead	10.0	8.59		mg/Kg		86	80 - 120
Magnesium	1000	863		mg/Kg		86	80 - 120
Manganese	50.0	43.8		mg/Kg		88	80 - 120
Nickel	50.0	43.6		mg/Kg		87	80 - 120
Potassium	1000	867		mg/Kg		87	80 - 120
Selenium	10.0	8.56		mg/Kg		86	80 - 120
Silver	5.00	4.20		mg/Kg		84	80 - 120
Sodium	1000	890		mg/Kg		89	80 - 120
Thallium	10.0	8.55		mg/Kg		86	80 - 120
Vanadium	50.0	44.1		mg/Kg		88	80 - 120
Zinc	50.0	43.6		mg/Kg		87	80 - 120

Lab Sample ID: LCS 500-390633/2-A
Matrix: Solid
Analysis Batch: 390900

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390633

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	100	81.8		mg/Kg		82	80 - 120

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: 500-129676-17 MS
Matrix: Solid
Analysis Batch: 390815

Client Sample ID: 2274V-06-B04 (0-1)
Prep Type: Total/NA
Prep Batch: 390633
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	0.22	J F1 F2	27.5	5.41	F1	mg/Kg	☼	20	75 - 125
Arsenic	6.3	F1 F2	5.50	14.1	F1	mg/Kg	☼	141	75 - 125
Barium	140	F1	110	160	F1	mg/Kg	☼	22	75 - 125
Beryllium	0.55		2.75	2.82		mg/Kg	☼	83	75 - 125
Boron	10	F1	55.0	44.4	F1	mg/Kg	☼	62	75 - 125
Cadmium	0.58	F1	2.75	2.49	F1	mg/Kg	☼	69	75 - 125
Chromium	25	F1	11.0	30.1	F1	mg/Kg	☼	47	75 - 125
Cobalt	9.4		27.5	41.5		mg/Kg	☼	117	75 - 125
Copper	37	F1	13.8	41.4	F1	mg/Kg	☼	35	75 - 125
Iron	17000	F2 B	55.0	22700	4 B	mg/Kg	☼	10562	75 - 125
Lead	80	F2	5.50	41.4	4	mg/Kg	☼	-692	75 - 125
Magnesium	17000	B	550	13400	4 B	mg/Kg	☼	-680	75 - 125
Manganese	390	F2 B	27.5	728	4 B	mg/Kg	☼	1224	75 - 125
Nickel	23	F1 F2	27.5	65.9	F1	mg/Kg	☼	157	75 - 125
Potassium	1800	F1	550	3760	F1	mg/Kg	☼	351	75 - 125
Selenium	0.76	F1	5.50	4.31	F1	mg/Kg	☼	64	75 - 125
Silver	<0.28	F1	2.75	2.02	F1	mg/Kg	☼	73	75 - 125
Sodium	820	F1	550	1220	F1	mg/Kg	☼	72	75 - 125
Thallium	<0.56		5.50	4.45		mg/Kg	☼	81	75 - 125
Vanadium	21		27.5	46.2		mg/Kg	☼	93	75 - 125
Zinc	160	F2 B	27.5	121	4 B	mg/Kg	☼	-152	75 - 125

Lab Sample ID: 500-129676-17 MS
Matrix: Solid
Analysis Batch: 390900

Client Sample ID: 2274V-06-B04 (0-1)
Prep Type: Total/NA
Prep Batch: 390633
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Calcium	39000	B	550	37800	4	mg/Kg	☼	-270	75 - 125

Lab Sample ID: 500-129676-17 MSD
Matrix: Solid
Analysis Batch: 390815

Client Sample ID: 2274V-06-B04 (0-1)
Prep Type: Total/NA
Prep Batch: 390633
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	0.22	J F1 F2	28.1	7.16	F1 F2	mg/Kg	☼	25	75 - 125	28	20
Arsenic	6.3	F1 F2	5.62	11.0	F2	mg/Kg	☼	83	75 - 125	25	20
Barium	140	F1	112	176	F1	mg/Kg	☼	36	75 - 125	9	20
Beryllium	0.55		2.81	2.95		mg/Kg	☼	85	75 - 125	4	20
Boron	10	F1	56.2	46.9	F1	mg/Kg	☼	65	75 - 125	5	20
Cadmium	0.58	F1	2.81	2.94		mg/Kg	☼	84	75 - 125	17	20
Chromium	25	F1	11.2	36.2		mg/Kg	☼	100	75 - 125	18	20
Cobalt	9.4		28.1	36.7		mg/Kg	☼	97	75 - 125	12	20
Copper	37	F1	14.1	49.6		mg/Kg	☼	93	75 - 125	18	20
Iron	17000	F2 B	56.2	17800	4 F2 B	mg/Kg	☼	1609	75 - 125	24	20
Lead	80	F2	5.62	78.6	4 F2	mg/Kg	☼	-16	75 - 125	62	20
Magnesium	17000	B	562	14400	4 B	mg/Kg	☼	-497	75 - 125	7	20
Manganese	390	F2 B	28.1	467	4 F2 B	mg/Kg	☼	269	75 - 125	44	20
Nickel	23	F1 F2	28.1	50.9	F2	mg/Kg	☼	100	75 - 125	26	20

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: 500-129676-17 MSD

Matrix: Solid

Analysis Batch: 390815

Client Sample ID: 2274V-06-B04 (0-1)

Prep Type: Total/NA

Prep Batch: 390633

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Potassium	1800	F1	562	3140	F1	mg/Kg	☼	232	75 - 125	18	20
Selenium	0.76	F1	5.62	5.01		mg/Kg	☼	76	75 - 125	15	20
Silver	<0.28	F1	2.81	2.24		mg/Kg	☼	80	75 - 125	10	20
Sodium	820	F1	562	1310		mg/Kg	☼	88	75 - 125	8	20
Thallium	<0.56		5.62	4.73		mg/Kg	☼	84	75 - 125	6	20
Vanadium	21		28.1	46.8		mg/Kg	☼	93	75 - 125	1	20
Zinc	160	F2 B	28.1	201	4 F2 B	mg/Kg	☼	135	75 - 125	50	20

Lab Sample ID: 500-129676-17 MSD

Matrix: Solid

Analysis Batch: 390900

Client Sample ID: 2274V-06-B04 (0-1)

Prep Type: Total/NA

Prep Batch: 390633

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Calcium	39000	B	562	34800	4	mg/Kg	☼	-794	75 - 125	8	20

Lab Sample ID: 500-129676-17 DU

Matrix: Solid

Analysis Batch: 390815

Client Sample ID: 2274V-06-B04 (0-1)

Prep Type: Total/NA

Prep Batch: 390633

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier		Result				
Antimony	0.22	J F1 F2	<1.1		mg/Kg	☼	NC	20
Arsenic	6.3	F1 F2	7.03		mg/Kg	☼	11	20
Barium	140	F1	77.8	F3	mg/Kg	☼	54	20
Beryllium	0.55		0.577		mg/Kg	☼	4	20
Boron	10	F1	7.95	F5	mg/Kg	☼	26	20
Cadmium	0.58	F1	0.558		mg/Kg	☼	4	20
Chromium	25	F1	27.5		mg/Kg	☼	10	20
Cobalt	9.4		11.6	F3	mg/Kg	☼	21	20
Copper	37	F1	32.6		mg/Kg	☼	11	20
Iron	17000	F2 B	17000	B	mg/Kg	☼	0.1	20
Lead	80	F2	66.5		mg/Kg	☼	18	20
Magnesium	17000	B	17900	B	mg/Kg	☼	4	20
Manganese	390	F2 B	544	F3 B	mg/Kg	☼	33	20
Nickel	23	F1 F2	25.3		mg/Kg	☼	11	20
Potassium	1800	F1	1700		mg/Kg	☼	7	20
Selenium	0.76	F1	0.823		mg/Kg	☼	8	20
Silver	<0.28	F1	<0.28		mg/Kg	☼	NC	20
Sodium	820	F1	911		mg/Kg	☼	10	20
Thallium	<0.56		<0.56		mg/Kg	☼	NC	20
Vanadium	21		22.4		mg/Kg	☼	8	20
Zinc	160	F2 B	147	B	mg/Kg	☼	10	20

Lab Sample ID: 500-129676-17 DU

Matrix: Solid

Analysis Batch: 390900

Client Sample ID: 2274V-06-B04 (0-1)

Prep Type: Total/NA

Prep Batch: 390633

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier		Result				
Calcium	39000	B	59300	F3	mg/Kg	☼	41	20

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: MB 500-390855/1-A
Matrix: Solid
Analysis Batch: 390975

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390855

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	1.11	J	2.0	0.88	mg/Kg		06/26/17 09:50	06/26/17 18:25	1

Lab Sample ID: LCS 500-390855/2-A
Matrix: Solid
Analysis Batch: 390975

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390855

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Zinc	50.0	43.6		mg/Kg		87	80 - 120

Lab Sample ID: 500-129676-5 MS
Matrix: Solid
Analysis Batch: 390975

Client Sample ID: 2274V-03-B06 (0-8)
Prep Type: Total/NA
Prep Batch: 390855

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Zinc	28	B F1 F2	25.3	62.1	F1	mg/Kg	☼	136	75 - 125

Lab Sample ID: 500-129676-5 MSD
Matrix: Solid
Analysis Batch: 390975

Client Sample ID: 2274V-03-B06 (0-8)
Prep Type: Total/NA
Prep Batch: 390855

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Zinc	28	B F1 F2	23.4	49.6	F2	mg/Kg	☼	93	75 - 125	22	20

Lab Sample ID: 500-129676-5 DU
Matrix: Solid
Analysis Batch: 390975

Client Sample ID: 2274V-03-B06 (0-8)
Prep Type: Total/NA
Prep Batch: 390855

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Zinc	28	B F1 F2	28.5		mg/Kg	☼	3	20

Lab Sample ID: LB 500-390154/1-B
Matrix: Solid
Analysis Batch: 390443

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 390310

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		06/21/17 10:30	06/21/17 20:39	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/17 10:30	06/21/17 20:39	1
Boron	0.0611	J	0.50	0.050	mg/L		06/21/17 10:30	06/21/17 20:39	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/21/17 10:30	06/21/17 20:39	1
Chromium	<0.025		0.025	0.010	mg/L		06/21/17 10:30	06/21/17 20:39	1
Cobalt	<0.025		0.025	0.010	mg/L		06/21/17 10:30	06/21/17 20:39	1
Iron	<0.40		0.40	0.20	mg/L		06/21/17 10:30	06/21/17 20:39	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/21/17 10:30	06/21/17 20:39	1
Manganese	<0.025		0.025	0.010	mg/L		06/21/17 10:30	06/21/17 20:39	1
Nickel	<0.025		0.025	0.010	mg/L		06/21/17 10:30	06/21/17 20:39	1
Selenium	<0.050		0.050	0.020	mg/L		06/21/17 10:30	06/21/17 20:39	1
Silver	<0.025		0.025	0.010	mg/L		06/21/17 10:30	06/21/17 20:39	1
Zinc	<0.50	^	0.50	0.020	mg/L		06/21/17 10:30	06/21/17 20:39	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: 500-129676-20 MS
Matrix: Solid
Analysis Batch: 390443

Client Sample ID: 2274V-06-B01 (0-4)
Prep Type: TCLP
Prep Batch: 390310

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Barium	0.32	J	0.500	0.850		mg/L		107	50 - 150
Beryllium	<0.0040		0.0500	0.0541		mg/L		108	50 - 150
Boron	0.098	J B	1.00	1.08		mg/L		99	50 - 150
Cadmium	0.0025	J	0.0500	0.0613		mg/L		117	50 - 150
Chromium	<0.025		0.200	0.211		mg/L		106	50 - 150
Cobalt	<0.025		0.500	0.577		mg/L		115	50 - 150
Iron	<0.40	*	1.00	1.31		mg/L		131	50 - 150
Lead	<0.0075		0.100	0.109		mg/L		109	50 - 150
Manganese	0.35		0.500	0.863		mg/L		103	50 - 150
Nickel	<0.025		0.500	0.571		mg/L		114	50 - 150
Selenium	<0.050		0.100	0.120		mg/L		120	50 - 150
Silver	<0.025		0.0500	0.0592		mg/L		118	50 - 150
Zinc	0.039	J ^	0.500	0.657	^	mg/L		124	50 - 150

Lab Sample ID: 500-129676-20 DU
Matrix: Solid
Analysis Batch: 390443

Client Sample ID: 2274V-06-B01 (0-4)
Prep Type: TCLP
Prep Batch: 390310

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Barium	0.32	J	0.304	J	mg/L		4	20
Beryllium	<0.0040		<0.0040		mg/L		NC	20
Boron	0.098	J B	0.0940	J	mg/L		4	20
Cadmium	0.0025	J	0.00221	J	mg/L		14	20
Chromium	<0.025		<0.025		mg/L		NC	20
Cobalt	<0.025		<0.025		mg/L		NC	20
Iron	<0.40	*	<0.40	*	mg/L		NC	20
Lead	<0.0075		<0.0075		mg/L		NC	20
Manganese	0.35		0.333		mg/L		4	20
Nickel	<0.025		<0.025		mg/L		NC	20
Selenium	<0.050		<0.050		mg/L		NC	20
Silver	<0.025		<0.025		mg/L		NC	20
Zinc	0.039	J ^	<0.50	^	mg/L		NC	20

Lab Sample ID: LB 500-390159/1-B
Matrix: Solid
Analysis Batch: 390591

Client Sample ID: Method Blank
Prep Type: SPLP East
Prep Batch: 390427

Analyte	LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/22/17 07:36	06/23/17 00:37	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/22/17 07:36	06/23/17 00:37	1
Manganese	<0.025		0.025	0.010	mg/L		06/22/17 07:36	06/23/17 00:37	1
Nickel	<0.025		0.025	0.010	mg/L		06/22/17 07:36	06/23/17 00:37	1

Lab Sample ID: 500-129676-20 MS
Matrix: Solid
Analysis Batch: 390591

Client Sample ID: 2274V-06-B01 (0-4)
Prep Type: SPLP East
Prep Batch: 390427

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Cadmium	0.0020	J	0.0500	0.0551		mg/L		110	50 - 150

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: 500-129676-20 MS
Matrix: Solid
Analysis Batch: 390591

Client Sample ID: 2274V-06-B01 (0-4)
Prep Type: SPLP East
Prep Batch: 390427

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.	
	Result	Qualifier		Result	Qualifier				Limits	
Lead	0.053		0.100	0.166		mg/L		113	50 - 150	
Manganese	0.25		0.500	0.851		mg/L		119	50 - 150	
Nickel	0.044		0.500	0.603		mg/L		112	50 - 150	

Lab Sample ID: 500-129676-20 DU
Matrix: Solid
Analysis Batch: 390591

Client Sample ID: 2274V-06-B01 (0-4)
Prep Type: SPLP East
Prep Batch: 390427

Analyte	Sample	Sample	DU		Unit	D	RPD	RPD	
	Result	Qualifier	Result	Qualifier				Limit	
Cadmium	0.0020	J	0.00207	J	mg/L		5	20	
Lead	0.053		0.0564		mg/L		6	20	
Manganese	0.25		0.285		mg/L		11	20	
Nickel	0.044		0.0538	F5	mg/L		21	20	

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: LCS 500-390310/2-A
Matrix: Solid
Analysis Batch: 390853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390310

Analyte	Spike	LCS		Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	
Antimony	0.500	0.500		mg/L		100	80 - 120	
Thallium	0.100	0.101		mg/L		101	80 - 120	

Lab Sample ID: LB 500-390154/1-B
Matrix: Solid
Analysis Batch: 390853

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 390310

Analyte	LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0060		0.0060	0.0060	mg/L		06/21/17 10:30	06/23/17 14:36	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/21/17 10:30	06/23/17 14:36	1

Lab Sample ID: 500-129676-20 MS
Matrix: Solid
Analysis Batch: 390853

Client Sample ID: 2274V-06-B01 (0-4)
Prep Type: TCLP
Prep Batch: 390310

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.	
	Result	Qualifier		Result	Qualifier				Limits	
Antimony	<0.0060		0.500	0.437		mg/L		87	50 - 150	
Thallium	<0.0020		0.100	0.0896		mg/L		90	50 - 150	

Lab Sample ID: 500-129676-20 DU
Matrix: Solid
Analysis Batch: 390853

Client Sample ID: 2274V-06-B01 (0-4)
Prep Type: TCLP
Prep Batch: 390310

Analyte	Sample	Sample	DU		Unit	D	RPD	RPD	
	Result	Qualifier	Result	Qualifier				Limit	
Antimony	<0.0060		<0.0060		mg/L		NC	20	
Thallium	<0.0020		<0.0020		mg/L		NC	20	

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-390319/12-A
Matrix: Solid
Analysis Batch: 390488

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390319

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		06/21/17 11:45	06/22/17 10:14	1

Lab Sample ID: LCS 500-390319/13-A
Matrix: Solid
Analysis Batch: 390488

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390319

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00201		mg/L		101	80 - 120

Lab Sample ID: LB 500-390154/1-C
Matrix: Solid
Analysis Batch: 390488

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 390319

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		06/21/17 11:45	06/22/17 10:16	1

Lab Sample ID: 500-129676-1 MS
Matrix: Solid
Analysis Batch: 390488

Client Sample ID: 2274V-07-B01 (0-1)
Prep Type: TCLP
Prep Batch: 390319

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.00020		0.00100	0.00108		mg/L		108	50 - 150

Lab Sample ID: 500-129676-1 DU
Matrix: Solid
Analysis Batch: 390488

Client Sample ID: 2274V-07-B01 (0-1)
Prep Type: TCLP
Prep Batch: 390319

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	<0.00020		<0.00020		mg/L		NC	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-390191/12-A
Matrix: Solid
Analysis Batch: 390339

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0113	J	0.017	0.0056	mg/Kg		06/21/17 08:00	06/21/17 11:07	1

Lab Sample ID: LCS 500-390191/13-A
Matrix: Solid
Analysis Batch: 390339

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.148		mg/Kg		89	80 - 120

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

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

Lab Sample ID: 500-129676-1 MS
Matrix: Solid
Analysis Batch: 390339

Client Sample ID: 2274V-07-B01 (0-1)
Prep Type: Total/NA
Prep Batch: 390191
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.043	B	0.0877	0.137		mg/Kg	☼	107	75 - 125

Lab Sample ID: 500-129676-1 MSD
Matrix: Solid
Analysis Batch: 390339

Client Sample ID: 2274V-07-B01 (0-1)
Prep Type: Total/NA
Prep Batch: 390191
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Mercury	0.043	B	0.0791	0.121		mg/Kg	☼	99	75 - 125	12	20

Lab Sample ID: 500-129676-1 DU
Matrix: Solid
Analysis Batch: 390339

Client Sample ID: 2274V-07-B01 (0-1)
Prep Type: Total/NA
Prep Batch: 390191
%Rec.

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.043	B	0.0329	F5	mg/Kg	☼	26	20

Method: 9045D - pH

Lab Sample ID: 500-129676-4 DU
Matrix: Solid
Analysis Batch: 391212

Client Sample ID: 2274V-03-B07 (0-4)
Prep Type: Total/NA
%Rec.

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	8.5		8.5		SU		0.4	

Lab Sample ID: 500-129676-11 DU
Matrix: Solid
Analysis Batch: 391212

Client Sample ID: 2274V-03-B01 (0-8)
Prep Type: Total/NA
%Rec.

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.6		7.5		SU		1	

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-07-B01 (0-1)

Lab Sample ID: 500-129676-1

Date Collected: 06/15/17 14:20

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 00:52	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 20:46	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6020A		1	390853	06/23/17 14:40	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:18	MJD	TAL CHI
Total/NA	Analysis	9045D		1	391212		MAN	TAL CHI
					(Start)	06/28/17 11:46		
					(End)	06/28/17 11:50		
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

Client Sample ID: 2274V-07-B01 (0-1)

Lab Sample ID: 500-129676-1

Date Collected: 06/15/17 14:20

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 93.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	389939	06/19/17 15:47	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390866	06/26/17 20:41	AJD	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 18:48	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 11:12	MJD	TAL CHI

Client Sample ID: 2274V-04-B01 (0-2)

Lab Sample ID: 500-129676-2

Date Collected: 06/15/17 11:55

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 00:56	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 20:50	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-04-B01 (0-2)

Lab Sample ID: 500-129676-2

Date Collected: 06/15/17 11:55

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Analysis	6020A		1	390853	06/23/17 14:42	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:23	MJD	TAL CHI
Total/NA	Analysis	9045D		1	391212	(Start) 06/28/17 11:50 (End) 06/28/17 11:54	MAN	TAL CHI
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

Client Sample ID: 2274V-04-B01 (0-2)

Lab Sample ID: 500-129676-2

Date Collected: 06/15/17 11:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 81.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	389939	06/19/17 16:12	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390535	06/22/17 22:48	GES	TAL CHI
Total/NA	Prep	3541			390818	06/26/17 07:18	STW	TAL CHI
Total/NA	Analysis	8081B		5	390875	06/27/17 03:57	PJG	TAL CHI
Total/NA	Prep	3541			390818	06/26/17 07:18	STW	TAL CHI
Total/NA	Analysis	8082A		1	390948	06/27/17 07:39	BJH	TAL CHI
Total/NA	Prep	8151A			390013	06/19/17 14:26	DAK	TAL CHI
Total/NA	Analysis	8151A		10	390492	06/22/17 19:53	SAW	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 18:52	PJ1	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		10	390900	06/26/17 11:18	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 11:25	MJD	TAL CHI

Client Sample ID: 2274V-03-B08 (0-4)

Lab Sample ID: 500-129676-3

Date Collected: 06/15/17 10:50

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 01:00	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 20:56	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-03-B08 (0-4)

Lab Sample ID: 500-129676-3

Date Collected: 06/15/17 10:50

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Analysis	6020A		1	390853	06/23/17 14:44	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:24	MJD	TAL CHI
Total/NA	Analysis	9045D		1	391212	(Start) 06/28/17 11:54 (End) 06/28/17 11:58	MAN	TAL CHI
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

Client Sample ID: 2274V-03-B08 (0-4)

Lab Sample ID: 500-129676-3

Date Collected: 06/15/17 10:50

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 89.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	389939	06/19/17 16:37	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390535	06/22/17 23:16	GES	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 18:56	PJ1	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		10	390900	06/26/17 11:22	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 11:28	MJD	TAL CHI

Client Sample ID: 2274V-03-B07 (0-4)

Lab Sample ID: 500-129676-4

Date Collected: 06/15/17 11:05

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 01:04	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 21:07	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6020A		1	390853	06/23/17 14:46	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:26	MJD	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-03-B07 (0-4)

Date Collected: 06/15/17 11:05

Date Received: 06/15/17 16:25

Lab Sample ID: 500-129676-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	391212	(Start) 06/28/17 11:58 (End) 06/28/17 12:02	MAN	TAL CHI
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

Client Sample ID: 2274V-03-B07 (0-4)

Date Collected: 06/15/17 11:05

Date Received: 06/15/17 16:25

Lab Sample ID: 500-129676-4

Matrix: Solid

Percent Solids: 90.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	389939	06/19/17 17:03	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390538	06/23/17 00:44	GES	TAL CHI
Total/NA	Prep	3541	DL		390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D	DL	5	390866	06/26/17 21:08	AJD	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 19:00	PJ1	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		10	390900	06/26/17 11:25	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 11:30	MJD	TAL CHI

Client Sample ID: 2274V-03-B06 (0-8)

Date Collected: 06/15/17 11:35

Date Received: 06/15/17 16:25

Lab Sample ID: 500-129676-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 01:07	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 21:11	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6020A		1	390853	06/23/17 14:48	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:27	MJD	TAL CHI
Total/NA	Analysis	9045D		1	391212	(Start) 06/28/17 12:06 (End) 06/28/17 12:10	MAN	TAL CHI
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-03-B06 (0-8)

Lab Sample ID: 500-129676-5

Date Collected: 06/15/17 11:35

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 93.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	389939	06/19/17 17:28	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390535	06/22/17 22:21	GES	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 19:03	PJ1	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		10	390900	06/26/17 11:29	PJ1	TAL CHI
Total/NA	Prep	3050B			390855	06/26/17 09:50	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390975	06/26/17 18:33	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 11:32	MJD	TAL CHI

Client Sample ID: 2274V-03-B06 (8-16)

Lab Sample ID: 500-129676-6

Date Collected: 06/15/17 11:40

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 01:11	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 21:19	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6020A		1	390853	06/23/17 14:50	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:32	MJD	TAL CHI
Total/NA	Analysis	9045D		1	391212		MAN	TAL CHI
						(Start) 06/28/17 12:10		
						(End) 06/28/17 12:14		
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

Client Sample ID: 2274V-03-B06 (8-16)

Lab Sample ID: 500-129676-6

Date Collected: 06/15/17 11:40

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 80.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	389939	06/19/17 17:54	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390535	06/22/17 18:39	GES	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-03-B06 (8-16)

Date Collected: 06/15/17 11:40

Date Received: 06/15/17 16:25

Lab Sample ID: 500-129676-6

Matrix: Solid

Percent Solids: 80.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 19:07	PJ1	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		10	390900	06/26/17 11:36	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 11:35	MJD	TAL CHI

Client Sample ID: 2274V-03-B02 (0-4)

Date Collected: 06/15/17 12:30

Date Received: 06/15/17 16:25

Lab Sample ID: 500-129676-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 01:15	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 21:25	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6020A		1	390853	06/23/17 14:52	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:33	MJD	TAL CHI
Total/NA	Analysis	9045D		1	391212		MAN	TAL CHI
					(Start)	06/28/17 12:14		
					(End)	06/28/17 12:18		
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

Client Sample ID: 2274V-03-B02 (0-4)

Date Collected: 06/15/17 12:30

Date Received: 06/15/17 16:25

Lab Sample ID: 500-129676-7

Matrix: Solid

Percent Solids: 89.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	389939	06/19/17 18:19	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390535	06/22/17 19:07	GES	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 19:11	PJ1	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		10	390900	06/26/17 11:40	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 11:37	MJD	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-03-B04 (0-1)

Lab Sample ID: 500-129676-8

Date Collected: 06/15/17 12:45

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 01:19	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 21:31	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6020A		1	390853	06/23/17 14:54	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:35	MJD	TAL CHI
Total/NA	Analysis	9045D		1	391212		MAN	TAL CHI
					(Start)	06/28/17 12:18		
					(End)	06/28/17 12:22		
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

Client Sample ID: 2274V-03-B04 (0-1)

Lab Sample ID: 500-129676-8

Date Collected: 06/15/17 12:45

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 91.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	389939	06/19/17 18:45	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390535	06/23/17 00:11	GES	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 19:15	PJ1	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		10	390900	06/26/17 11:44	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 11:39	MJD	TAL CHI

Client Sample ID: 2274V-03-B05 (0-2)

Lab Sample ID: 500-129676-9

Date Collected: 06/15/17 12:55

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 01:22	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 21:36	PJ1	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-03-B05 (0-2)

Lab Sample ID: 500-129676-9

Date Collected: 06/15/17 12:55

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6020A		1	390853	06/23/17 15:01	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:36	MJD	TAL CHI
Total/NA	Analysis	9045D		1	391212		MAN	TAL CHI
					(Start)	06/28/17 12:22		
					(End)	06/28/17 12:26		
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

Client Sample ID: 2274V-03-B05 (0-2)

Lab Sample ID: 500-129676-9

Date Collected: 06/15/17 12:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 91.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	389939	06/19/17 19:10	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390535	06/22/17 20:58	GES	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 19:19	PJ1	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		10	390900	06/26/17 11:55	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 11:42	MJD	TAL CHI

Client Sample ID: 2274V-03-B03 (0-2)

Lab Sample ID: 500-129676-10

Date Collected: 06/15/17 13:08

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 01:26	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 21:41	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6020A		1	390853	06/23/17 15:03	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:38	MJD	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-03-B03 (0-2)

Lab Sample ID: 500-129676-10

Date Collected: 06/15/17 13:08

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	391212		MAN	TAL CHI
					(Start)	06/28/17 12:26		
					(End)	06/28/17 12:30		
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

Client Sample ID: 2274V-03-B03 (0-2)

Lab Sample ID: 500-129676-10

Date Collected: 06/15/17 13:08

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 92.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	389939	06/19/17 19:35	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390535	06/22/17 21:26	GES	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 19:23	PJ1	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		10	390900	06/26/17 11:59	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 11:48	MJD	TAL CHI

Client Sample ID: 2274V-03-B01 (0-8)

Lab Sample ID: 500-129676-11

Date Collected: 06/15/17 13:50

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 01:38	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 21:46	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6020A		1	390853	06/23/17 15:05	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:39	MJD	TAL CHI
Total/NA	Analysis	9045D		1	391212		MAN	TAL CHI
					(Start)	06/28/17 12:55		
					(End)	06/28/17 12:59		
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-03-B01 (0-8)

Lab Sample ID: 500-129676-11

Date Collected: 06/15/17 13:50

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 88.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	389939	06/19/17 20:00	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390535	06/22/17 21:53	GES	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 19:34	PJ1	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		10	390900	06/26/17 12:02	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 11:50	MJD	TAL CHI

Client Sample ID: 2274V-03-B01 (8-16)

Lab Sample ID: 500-129676-12

Date Collected: 06/15/17 13:55

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 01:41	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 21:52	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6020A		1	390853	06/23/17 15:07	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:40	MJD	TAL CHI
Total/NA	Analysis	9045D		1	391212	(Start) 06/28/17 13:03 (End) 06/28/17 13:07	MAN	TAL CHI
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

Client Sample ID: 2274V-03-B01 (8-16)

Lab Sample ID: 500-129676-12

Date Collected: 06/15/17 13:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 84.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	389939	06/19/17 20:26	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390535	06/22/17 19:35	GES	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 19:38	PJ1	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-03-B01 (8-16)

Lab Sample ID: 500-129676-12

Date Collected: 06/15/17 13:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 84.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		10	390900	06/26/17 12:06	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 11:53	MJD	TAL CHI

Client Sample ID: 2274V-03-B01 (8-16)D

Lab Sample ID: 500-129676-13

Date Collected: 06/15/17 13:55

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 01:45	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 21:58	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6020A		1	390853	06/23/17 15:09	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:42	MJD	TAL CHI
Total/NA	Analysis	9045D		1	391212		MAN	TAL CHI
					(Start)	06/28/17 13:07		
					(End)	06/28/17 13:11		
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

Client Sample ID: 2274V-03-B01 (8-16)D

Lab Sample ID: 500-129676-13

Date Collected: 06/15/17 13:55

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 84.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	389939	06/19/17 20:51	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390535	06/22/17 20:03	GES	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 19:42	PJ1	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		10	390900	06/26/17 12:10	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 11:55	MJD	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-46-B01 (0-1)

Lab Sample ID: 500-129676-14

Date Collected: 06/15/17 10:33

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 01:49	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 22:11	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6020A		1	390853	06/23/17 15:11	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:43	MJD	TAL CHI
Total/NA	Analysis	9045D		1	391212		MAN	TAL CHI
					(Start)	06/28/17 13:11		
					(End)	06/28/17 13:15		
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

Client Sample ID: 2274V-46-B01 (0-1)

Lab Sample ID: 500-129676-14

Date Collected: 06/15/17 10:33

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 89.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	389939	06/19/17 21:16	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390535	06/23/17 00:38	GES	TAL CHI
Total/NA	Prep	3541	DL		390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D	DL	5	391012	06/27/17 20:07	AJD	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 19:46	PJ1	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		10	390900	06/26/17 12:13	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 11:58	MJD	TAL CHI

Client Sample ID: 2274V-05-B02 (0-1)

Lab Sample ID: 500-129676-15

Date Collected: 06/15/17 15:22

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 01:53	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-05-B02 (0-1)

Lab Sample ID: 500-129676-15

Date Collected: 06/15/17 15:22

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 22:17	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6020A		1	390853	06/23/17 15:13	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:45	MJD	TAL CHI
Total/NA	Analysis	9045D		1	391212		MAN	TAL CHI
					(Start)	06/28/17 13:15		
					(End)	06/28/17 13:19		
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

Client Sample ID: 2274V-05-B02 (0-1)

Lab Sample ID: 500-129676-15

Date Collected: 06/15/17 15:22

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	389939	06/19/17 21:42	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390538	06/23/17 00:17	GES	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 19:49	PJ1	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		10	390900	06/26/17 12:17	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 12:00	MJD	TAL CHI

Client Sample ID: 2274V-05-B01 (0-1)

Lab Sample ID: 500-129676-16

Date Collected: 06/15/17 15:25

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 01:57	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 22:23	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6020A		1	390853	06/23/17 15:15	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-05-B01 (0-1)

Lab Sample ID: 500-129676-16

Date Collected: 06/15/17 15:25

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:50	MJD	TAL CHI
Total/NA	Analysis	9045D		1	391212	(Start) 06/28/17 13:19 (End) 06/28/17 13:23	MAN	TAL CHI
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

Client Sample ID: 2274V-05-B01 (0-1)

Lab Sample ID: 500-129676-16

Date Collected: 06/15/17 15:25

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	390112	06/20/17 12:32	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390538	06/23/17 01:40	GES	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 19:53	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 12:02	MJD	TAL CHI

Client Sample ID: 2274V-06-B04 (0-1)

Lab Sample ID: 500-129676-17

Date Collected: 06/15/17 14:30

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 02:00	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 22:28	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6020A		1	390853	06/23/17 15:17	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:51	MJD	TAL CHI
Total/NA	Analysis	9045D		1	391212	(Start) 06/28/17 13:23 (End) 06/28/17 13:27	MAN	TAL CHI
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-06-B04 (0-1)

Lab Sample ID: 500-129676-17

Date Collected: 06/15/17 14:30

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	390112	06/20/17 12:57	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390538	06/23/17 02:07	GES	TAL CHI
Total/NA	Prep	3541	DL		390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D	DL	5	390866	06/26/17 22:56	AJD	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 19:57	PJ1	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		10	390900	06/26/17 12:21	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 12:04	MJD	TAL CHI

Client Sample ID: 2274V-06-B03 (0-1)

Lab Sample ID: 500-129676-18

Date Collected: 06/15/17 14:45

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 02:04	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 22:32	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6020A		1	390853	06/23/17 15:19	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:52	MJD	TAL CHI
Total/NA	Analysis	9045D		1	391212	(Start) 06/28/17 13:27 (End) 06/28/17 13:31	MAN	TAL CHI
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

Client Sample ID: 2274V-06-B03 (0-1)

Lab Sample ID: 500-129676-18

Date Collected: 06/15/17 14:45

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 87.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	390112	06/20/17 13:22	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390535	06/22/17 23:44	GES	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-06-B03 (0-1)

Lab Sample ID: 500-129676-18

Date Collected: 06/15/17 14:45

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 87.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 20:23	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 12:07	MJD	TAL CHI

Client Sample ID: 2274V-06-B02 (0-1)

Lab Sample ID: 500-129676-19

Date Collected: 06/15/17 14:50

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 02:08	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 22:40	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6020A		1	390853	06/23/17 15:25	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:54	MJD	TAL CHI
Total/NA	Analysis	9045D		1	391212		MAN	TAL CHI
					(Start)	06/28/17 13:31		
					(End)	06/28/17 13:35		
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

Client Sample ID: 2274V-06-B02 (0-1)

Lab Sample ID: 500-129676-19

Date Collected: 06/15/17 14:50

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 90.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	390112	06/20/17 13:47	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390538	06/23/17 01:12	GES	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 20:27	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 12:09	MJD	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129676-1

Client Sample ID: 2274V-06-B01 (0-4)

Lab Sample ID: 500-129676-20

Date Collected: 06/15/17 15:00

Matrix: Solid

Date Received: 06/15/17 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			390159	06/20/17 13:00	RMP	TAL CHI
SPLP East	Prep	3010A			390427	06/22/17 07:36	JEF	TAL CHI
SPLP East	Analysis	6010B		1	390591	06/23/17 02:11	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6010B		1	390443	06/21/17 22:47	PJ1	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	3010A			390310	06/21/17 10:30	RMP	TAL CHI
TCLP	Analysis	6020A		1	390853	06/23/17 15:27	FXG	TAL CHI
TCLP	Leach	1311			390154	06/20/17 13:00	RMP	TAL CHI
TCLP	Prep	7470A			390319	06/21/17 11:45	MJD	TAL CHI
TCLP	Analysis	7470A		1	390488	06/22/17 10:55	MJD	TAL CHI
Total/NA	Analysis	9045D		1	391212		MAN	TAL CHI
					(Start)	06/28/17 13:35		
					(End)	06/28/17 13:39		
Total/NA	Analysis	Moisture		1	390104	06/20/17 08:15	LWN	TAL CHI

Client Sample ID: 2274V-06-B01 (0-4)

Lab Sample ID: 500-129676-20

Date Collected: 06/15/17 15:00

Matrix: Solid

Date Received: 06/15/17 16:25

Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			389853	06/15/17 17:16	WRE	TAL CHI
Total/NA	Analysis	8260B		1	390112	06/20/17 14:12	DJD	TAL CHI
Total/NA	Prep	3541			390387	06/21/17 19:17	JP1	TAL CHI
Total/NA	Analysis	8270D		1	390535	06/22/17 20:30	GES	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		1	390815	06/24/17 20:31	PJ1	TAL CHI
Total/NA	Prep	3050B			390633	06/23/17 10:07	AAP	TAL CHI
Total/NA	Analysis	6010B		10	390900	06/26/17 12:47	PJ1	TAL CHI
Total/NA	Prep	7471B			390191	06/21/17 08:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	390339	06/21/17 12:16	MJD	TAL CHI

Laboratory References:

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

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 #: 500-129676
Chain of Custody Number: _____
Page _____ of _____
Temperature °C of Cooler: 34.5.6

Client		Client Project #		Preservative		Parameter		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix	
E+E		1009341.0015.02						VOC		SVOC		Total/TC/PC Metals		pH		Percent Solids			
Project Name		Lab Project #																	
IDOT 176-001-W015																			
Project Location/State		Lab PM																	
Crestwood, IL		D. Wright																	
Sampler																			
EF, JH																			
Lab ID	MS/MSD	Sample ID		Sampling		# of Containers	Matrix												
		Date	Time																
1		2274V-07-B01(6-1)	6/15/17	1420	5	S		X	X	X	X	X							

- Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. HClO4, Cool to 4°



500-129676 COC

Comments

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)

Requisitioned By <i>J. Hughes</i>	Company E+E	Date 6/15/17	Time 1530	Received By <i>[Signature]</i>	Company TA	Date 6/15/17	Time 1530
Requisitioned By <i>[Signature]</i>	Company TA	Date 6/15/17	Time 1625	Received By <i>[Signature]</i>	Company TA	Date 6/15/17	Time 1625

Lab Courier: TA
Shipped: _____
Hand Delivered: _____

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

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-129676-1

Login Number: 129676

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	3.4, 5.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





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

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

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

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

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

I. Source Location Information

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

Project Name: FAP 344 (Illinois Route 83) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
5405 W. 127th Street (ISGS #2274V-8)

City: Crestwood State: IL Zip Code: 60445

County: Cook Township: Worth

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

Latitude: 41.66110 Longitude: -87.75326
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Tyler Petersen

Contact: Tyler Petersen

Email, if available: Tyler.Petersen@illinois.gov

Email, if available: Tyler.Petersen@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 344 (Illinois Route 83)

Latitude: 41.66110 Longitude: -87.75326

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 2274V-08-B01, -B02, -B03, and -B04 were sampled within the construction zone adjacent to ISGS #2274V-8 (Commercial Building). Refer to PSI Report for ISGS #2274V-8 (Commercial Building) including Table 4-3, and Figures 4-2 and 4-4.

- 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 J129768-3 and J143305-7.

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

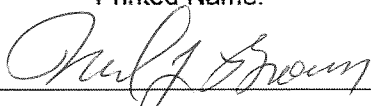
I, Neil J. Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental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

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

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

Neil J. Brown

Printed Name:




Date:

Licensed Professional Engineer or
Licensed Professional Geologist Signature:







Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15B

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 or not applicable.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.
- PID = Photoionization detector.
- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

- # = pH is less than 6.25 or greater than 9.0 standard units.
- ** = Headspace reading above background (outside of instrument margin of error).
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Headspace reading exceeds background levels
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15A
CONTAMINANTS OF CONCERN

SITE	ISGS #2274V-8 (Commercial Building)				Comparison Criteria					
	2274V-08-B01		2274V-08-B02	2274V-08-B03	MACs			TACO		
BORING	2274V-08-B01 (0-8)		2274V-08-B02 (0-2)	2274V-08-B03 (0-2)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2274V-08-B01 (0-8)	2274V-08-B01 (8-16)	2274V-08-B02 (0-2)	2274V-08-B03 (0-2)						
MATRIX	Soil	Soil	Soil	Soil						
DEPTH (feet)	0-8	8-16	0-2	0-2						
pH	8.1	7.7	7.8	8.9						
VOCs (None Detected)										
SVOCs (mg/kg)										
2-Methylnaphthalene	ND U	ND U	0.011 J	ND U	--	--	--	--	--	--
Acenaphthene	0.0067 J	ND U	0.011 J	0.022 J	570	--	--	4,700	120,000	--
Acenaphthylene	0.0051 J	ND U	0.048	0.014 J	--	--	--	--	--	--
Anthracene	0.026 J	0.015 J	0.089	0.097	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.17	0.084	0.58	0.79	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.20 †	0.098 †	0.67 †	0.94 †	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.31	0.16	1.2 †	1.5 †	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.095	0.046	0.32	0.42	--	--	--	--	--	--
Benzo(k)fluoranthene	0.12	0.067	0.40	0.69	9	--	--	9	1,700	--
Bis(2-ethylhexyl) phthalate	ND U	0.079 J	0.077 J	ND U	46	--	--	46	4,100	--
Chrysene	0.20	0.11	0.70	1.0	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.030 J	0.019 J	0.095 †	0.12 †	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.35	0.22	1.2	1.9	3,100	--	--	3,100	82,000	--
Fluorene	0.0061 J	0.0079 J	0.016 J	0.027 J	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.091	0.047	0.30	0.39	0.9	1.6	0.9	1.6	170	--
Naphthalene	ND U	ND U	0.010 J	0.0076 J	1.8	--	--	170	1.8	--
Phenanthrene	0.13	0.10	0.36	0.68	--	--	--	--	--	--
Pyrene	0.32	0.18	1.1	1.7	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)										
Arsenic	5.9	7.9	7.7	7.9	11.3	13	--	13	61	--
Barium	42	45	64	70	1,500	--	--	5,500	14,000	--
Beryllium	0.40	0.45	0.46	0.61	22	--	--	160	410	--
Boron	6.4	6.2	5.6	4.5	40	--	--	16,000	41,000	--
Cadmium	0.57	0.28	3.0	0.86	5.2	--	--	78	200	--
Calcium	75,000	33,000	20,000	7,300	--	--	--	--	--	--
Chromium	14	13	35 †	20	21	--	--	230	690	--
Cobalt	9.1	10	8.1	13	20	--	--	4,700	12,000	--
Copper	22	25	78	27	2,900	--	--	2,900	8,200	--
Iron	14,000	18,000 †m	13,000	18,000 †m	15,000	15,900	--	--	--	--
Lead	62	83	120 †	73	107	--	--	400	700	--
Magnesium	42,000	33,000	12,000	7,500	325,000	--	--	--	730,000	--
Manganese	300	340	420	360	630	636	--	1,600	4,100	--
Mercury	ND U	ND U	0.17	0.077	0.89	--	--	10	0.1	--
Nickel	21	24	23	31	100	--	--	1,600	4,100	--
Potassium	1,200	1,200	1,300	1,500	--	--	--	--	--	--
Selenium	0.41 J	0.42 J	1.1	0.70	1.3	--	--	390	1,000	--
Silver	ND U	ND U	0.65	0.097 J	4.4	--	--	390	1,000	--
Sodium	210	740	83	640	--	--	--	--	--	--
Vanadium	14	15	14	17	550	--	--	550	1,400	--
Zinc	86	87	150	100	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)										
Barium	0.36 J	0.28 J	0.40 J	0.34 J	--	--	--	--	--	2
Cadmium	0.0050	0.0058 L	0.015 L	0.0068 L	--	--	--	--	--	0.005
Chromium	ND U	ND U	ND U	ND U	--	--	--	--	--	0.1
Cobalt	ND U	0.037	ND U	ND U	--	--	--	--	--	1
Iron	ND U	ND U	ND U	ND U	--	--	--	--	--	5
Lead	ND U	ND U	ND U	ND U	--	--	--	--	--	0.0075
Manganese	0.32 L	4.3 L	0.53 L	0.55 L	--	--	--	--	--	0.15
Nickel	0.014 J	0.039	0.014 J	0.010 J	--	--	--	--	--	0.1
Zinc	0.050 J	0.094 J	0.18 J	0.052 J	--	--	--	--	--	5
SPLP Metals (mg/L)										
Cadmium	ND U	ND U	0.0030 J	0.0047 J	--	--	--	--	--	0.005
Manganese	0.13	0.023 J	0.094	0.72 L	--	--	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #2274V-8 (Commercial Building)	Comparison Criteria					
		MACs			TACO		
BORING	2274V-08-B04						
SAMPLE	2274V-08-B04 (0-4)						
MATRIX	Soil						
DEPTH (feet)	0-4						
pH	7.8						
PID > Bkgd.	--	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
VOCs (None Detected)							
SVOCs (mg/kg)							
2-Methylnaphthalene	0.0081 J	--	--	--	--	--	--
Acenaphthene	0.031 J	570	--	--	4,700	120,000	--
Acenaphthylene	0.016 J	--	--	--	--	--	--
Anthracene	0.21	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	1.1 †	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	1.3 †	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	1.9 †*	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.72	--	--	--	--	--	--
Benzo(k)fluoranthene	0.68	9	--	--	9	1,700	--
Carbazole	0.10 J	0.6	--	--	32	6,200	--
Chrysene	1.3	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.19 †	0.09	0.42	0.2	0.42	17	--
Fluoranthene	2.7	3,100	--	--	3,100	82,000	--
Fluorene	0.032 J	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.71	0.9	1.6	0.9	1.6	170	--
Naphthalene	0.0084 J	1.8	--	--	170	1.8	--
Phenanthrene	0.94	--	--	--	--	--	--
Pyrene	2.0	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)							
Arsenic	5.5	11.3	13	--	13	61	--
Barium	73	1,500	--	--	5,500	14,000	--
Beryllium	0.72	22	--	--	160	410	--
Boron	6.3	40	--	--	16,000	41,000	--
Cadmium	1.7	5.2	--	--	78	200	--
Calcium	9,000	--	--	--	--	--	--
Chromium	31 †	21	--	--	230	690	--
Cobalt	10	20	--	--	4,700	12,000	--
Copper	29	2,900	--	--	2,900	8,200	--
Iron	17,000 †m	15,000	15,900	--	--	--	--
Lead	46	107	--	--	400	700	--
Magnesium	5,900	325,000	--	--	--	730,000	--
Manganese	380	630	636	--	1,600	4,100	--
Mercury	0.085	0.89	--	--	10	0.1	--
Nickel	27	100	--	--	1,600	4,100	--
Potassium	1,700	--	--	--	--	--	--
Silver	0.59	4.4	--	--	390	1,000	--
Sodium	210	--	--	--	--	--	--
Vanadium	19	550	--	--	550	1,400	--
Zinc	120	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)							
Barium	0.32 J	--	--	--	--	--	2
Boron	0.086 J	--	--	--	--	--	2
Cadmium	0.0067 L	--	--	--	--	--	0.005
Chromium	ND U	--	--	--	--	--	0.1
Iron	ND U	--	--	--	--	--	5
Manganese	0.30 L	--	--	--	--	--	0.15
Zinc	0.072 J	--	--	--	--	--	5
SPLP Metals (mg/L)							
Cadmium	0.0034 J	--	--	--	--	--	0.005
Manganese	0.41 L	--	--	--	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 500-129768-3
Client Project/Site: IDOT - IL 83 - WO 015

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/30/2017 11:53:13 AM

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

LINKS

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

Job ID: 500-129768-3

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-129768-3

Receipt

The samples were received on 6/16/2017 4:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 4.5° 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 500-390790 had 1 analyte outside control limits: 2,4-Dinitrophenol. 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

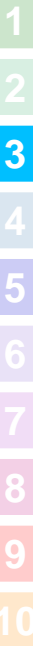
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B01 (0-8)

Lab Sample ID: 500-129768-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0051	J	0.036	0.0047	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.0067	J	0.036	0.0065	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0061	J	0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.13		0.036	0.0050	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.026	J	0.036	0.0060	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.35		0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.32		0.036	0.0071	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.17		0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.20		0.036	0.0098	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.31		0.036	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.12		0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.20		0.036	0.0070	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.091		0.036	0.0093	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.030	J	0.036	0.0069	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.095		0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.9		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	42		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.40		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	6.4		2.7	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.57	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	75000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Chromium	14		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.1		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	22		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	14000		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	62		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	42000	B	5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	300		0.55	0.080	mg/Kg	1	☼	6010B	Total/NA
Nickel	21		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1200		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.41	J	0.55	0.32	mg/Kg	1	☼	6010B	Total/NA
Sodium	210		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	86		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.36	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.096	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0050		0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.32		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	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.13		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.062	B	0.017	0.0055	mg/Kg	1	☼	7471B	Total/NA
pH	8.1		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-08-B01 (8-16)

Lab Sample ID: 500-129768-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	0.0079	J	0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.10		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.015	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B01 (8-16) (Continued)

Lab Sample ID: 500-129768-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.22		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.18		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.084		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.11		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.079	J	0.19	0.070	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.16		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.067		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.098		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.047		0.038	0.0099	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.019	J	0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.046		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.9		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	45		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.45		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	6.2		2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.28	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	33000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	13		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	10		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	25		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	18000		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	83		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	33000	B	5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	340		0.58	0.084	mg/Kg	1	☼	6010B	Total/NA
Nickel	24		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1200		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.42	J	0.58	0.34	mg/Kg	1	☼	6010B	Total/NA
Sodium	740		56	8.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	87		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.28	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0058		0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.037		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	4.3		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.039		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.094	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.023	J	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.062	B	0.018	0.0058	mg/Kg	1	☼	7471B	Total/NA
pH	7.7		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-08-B02 (0-2)

Lab Sample ID: 500-129768-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.010	J	0.035	0.0054	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.011	J	0.071	0.0065	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.048		0.035	0.0047	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.011	J	0.035	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.016	J	0.035	0.0050	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.36		0.035	0.0049	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 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B02 (0-2) (Continued)

Lab Sample ID: 500-129768-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.089		0.035	0.0059	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	1.2		0.035	0.0066	mg/Kg	1	☼	8270D	Total/NA
Pyrene	1.1		0.035	0.0070	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.58		0.035	0.0048	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.70		0.035	0.0096	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) pthalate	0.077	J	0.18	0.065	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1.2		0.035	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.40		0.035	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.67		0.035	0.0068	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.30		0.035	0.0092	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.095		0.035	0.0068	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.32		0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.7		0.51	0.17	mg/Kg	1	☼	6010B	Total/NA
Barium	64		0.53	0.061	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.46		0.21	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	5.6		2.6	0.24	mg/Kg	1	☼	6010B	Total/NA
Cadmium	3.0	B	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	20000	B	11	1.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	35		0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.1		0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Copper	78		0.53	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	13000		11	5.5	mg/Kg	1	☼	6010B	Total/NA
Lead	120		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	12000	B	5.1	2.5	mg/Kg	1	☼	6010B	Total/NA
Manganese	420		0.51	0.074	mg/Kg	1	☼	6010B	Total/NA
Nickel	23		0.53	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		27	9.4	mg/Kg	1	☼	6010B	Total/NA
Selenium	1.1		0.51	0.30	mg/Kg	1	☼	6010B	Total/NA
Silver	0.65		0.27	0.069	mg/Kg	1	☼	6010B	Total/NA
Sodium	83		53	7.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.27	0.063	mg/Kg	1	☼	6010B	Total/NA
Zinc	150		1.1	0.47	mg/Kg	1	☼	6010B	Total/NA
Barium	0.40	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.10	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.015		0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.53		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.014	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.18	J	0.50	0.020	mg/L	1		6010B	TCLP
Cadmium	0.0030	J	0.0050	0.0020	mg/L	1		6010B	SPLP East
Manganese	0.094		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.17	B	0.017	0.0056	mg/Kg	1	☼	7471B	Total/NA
pH	7.8		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-08-B03 (0-2)

Lab Sample ID: 500-129768-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0076	J	0.037	0.0058	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.014	J	0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.022	J	0.037	0.0068	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.027	J	0.037	0.0053	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 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B03 (0-2) (Continued)

Lab Sample ID: 500-129768-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.68		0.037	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.097		0.037	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	1.9		0.037	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	1.7		0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.79		0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	1.0		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1.5		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.69		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.94		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.39		0.037	0.0098	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.12		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.42		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.9		0.51	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	70		0.55	0.063	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.61		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	4.5		2.6	0.24	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.86	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	7300	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	20		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	13		0.27	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	27		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	18000		11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	73		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	7500	B	5.1	2.5	mg/Kg	1	☼	6010B	Total/NA
Manganese	360		0.51	0.074	mg/Kg	1	☼	6010B	Total/NA
Nickel	31		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.70		0.51	0.30	mg/Kg	1	☼	6010B	Total/NA
Silver	0.097	J	0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Sodium	640		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.27	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	100		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.34	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.12	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0068		0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.55		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	0.50	0.020	mg/L	1		6010B	TCLP
Cadmium	0.0047	J	0.0050	0.0020	mg/L	1		6010B	SPLP East
Manganese	0.72		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.077	B	0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	8.9		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 83 - WO 015

TestAmerica Job ID: 500-129768-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-129768-3	2274V-08-B01 (0-8)	Solid	06/16/17 10:10	06/16/17 16:00
500-129768-4	2274V-08-B01 (8-16)	Solid	06/16/17 10:15	06/16/17 16:00
500-129768-5	2274V-08-B02 (0-2)	Solid	06/16/17 12:18	06/16/17 16:00
500-129768-6	2274V-08-B03 (0-2)	Solid	06/16/17 12:25	06/16/17 16:00

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B01 (0-8)

Lab Sample ID: 500-129768-3

Date Collected: 06/16/17 10:10

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 88.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.015		0.015	0.0065	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Benzene	<0.0015		0.0015	0.00038	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Bromodichloromethane	<0.0015		0.0015	0.00031	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Bromoform	<0.0015		0.0015	0.00044	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Bromomethane	<0.0037		0.0037	0.0014	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
2-Butanone (MEK)	<0.0037		0.0037	0.0017	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Carbon disulfide	<0.0037		0.0037	0.00078	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Carbon tetrachloride	<0.0015		0.0015	0.00043	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Chlorobenzene	<0.0015		0.0015	0.00055	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Chloroethane	<0.0037		0.0037	0.0011	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Chloroform	<0.0015		0.0015	0.00052	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Chloromethane	<0.0037		0.0037	0.0015	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00042	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00045	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Dibromochloromethane	<0.0015		0.0015	0.00049	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
1,1-Dichloroethane	<0.0015		0.0015	0.00051	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
1,2-Dichloroethane	<0.0037		0.0037	0.0012	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
1,1-Dichloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
1,2-Dichloropropane	<0.0015		0.0015	0.00039	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
1,3-Dichloropropane, Total	<0.0015		0.0015	0.00053	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Ethylbenzene	<0.0015		0.0015	0.00072	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
2-Hexanone	<0.0037		0.0037	0.0012	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Methylene Chloride	<0.0037		0.0037	0.0015	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
4-Methyl-2-pentanone (MIBK)	<0.0037		0.0037	0.0011	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00044	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Styrene	<0.0015		0.0015	0.00045	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00048	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Tetrachloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Toluene	<0.0015		0.0015	0.00038	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00066	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00053	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
1,1,1-Trichloroethane	<0.0015		0.0015	0.00050	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00064	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Trichloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Vinyl acetate	<0.0037		0.0037	0.0013	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Vinyl chloride	<0.0015		0.0015	0.00066	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1
Xylenes, Total	<0.0030		0.0030	0.00048	mg/Kg	☼	06/16/17 17:21	06/21/17 19:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		75 - 131	06/16/17 17:21	06/21/17 19:05	1
Dibromofluoromethane	91		75 - 126	06/16/17 17:21	06/21/17 19:05	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 134	06/16/17 17:21	06/21/17 19:05	1
Toluene-d8 (Surr)	90		75 - 124	06/16/17 17:21	06/21/17 19:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.080	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B01 (0-8)

Lab Sample ID: 500-129768-3

Date Collected: 06/16/17 10:10

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 88.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Naphthalene	<0.036		0.036	0.0055	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
2,4-Dichlorophenol	<0.36		0.36	0.085	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
2-Methylnaphthalene	<0.073		0.073	0.0066	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
2,4-Dinitrophenol	<0.73	*	0.73	0.63	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Acenaphthylene	0.0051	J	0.036	0.0047	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Acenaphthene	0.0067	J	0.036	0.0065	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Fluorene	0.0061	J	0.036	0.0051	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Hexachlorobenzene	<0.073		0.073	0.0083	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Phenanthrene	0.13		0.036	0.0050	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Anthracene	0.026	J	0.036	0.0060	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Carbazole	<0.18		0.18	0.090	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Fluoranthene	0.35		0.036	0.0067	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Pyrene	0.32		0.036	0.0071	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Butyl benzyl phthalate	<0.18		0.18	0.068	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Benzo[a]anthracene	0.17		0.036	0.0048	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B01 (0-8)

Lab Sample ID: 500-129768-3

Date Collected: 06/16/17 10:10

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 88.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.20		0.036	0.0098	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Benzo[b]fluoranthene	0.31		0.036	0.0078	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Benzo[k]fluoranthene	0.12		0.036	0.011	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Benzo[a]pyrene	0.20		0.036	0.0070	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Indeno[1,2,3-cd]pyrene	0.091		0.036	0.0093	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Dibenz(a,h)anthracene	0.030	J	0.036	0.0069	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
Benzo[g,h,i]perylene	0.095		0.036	0.012	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	06/25/17 19:26	06/26/17 16:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	98		46 - 133	06/25/17 19:26	06/26/17 16:51	1
Phenol-d5	90		46 - 125	06/25/17 19:26	06/26/17 16:51	1
Nitrobenzene-d5	79		41 - 120	06/25/17 19:26	06/26/17 16:51	1
2-Fluorobiphenyl	82		44 - 121	06/25/17 19:26	06/26/17 16:51	1
2,4,6-Tribromophenol	83		25 - 139	06/25/17 19:26	06/26/17 16:51	1
Terphenyl-d14	102		35 - 160	06/25/17 19:26	06/26/17 16:51	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	06/26/17 10:16	06/26/17 20:47	1
Arsenic	5.9		0.55	0.19	mg/Kg	☼	06/27/17 09:39	06/27/17 17:59	1
Barium	42		0.56	0.064	mg/Kg	☼	06/26/17 10:16	06/26/17 20:47	1
Beryllium	0.40		0.22	0.052	mg/Kg	☼	06/26/17 10:16	06/26/17 20:47	1
Boron	6.4		2.7	0.26	mg/Kg	☼	06/27/17 09:39	06/27/17 17:59	1
Cadmium	0.57	B	0.11	0.020	mg/Kg	☼	06/26/17 10:16	06/26/17 20:47	1
Calcium	75000	B	110	19	mg/Kg	☼	06/26/17 10:16	06/27/17 12:09	10
Chromium	14		0.56	0.28	mg/Kg	☼	06/26/17 10:16	06/26/17 20:47	1
Cobalt	9.1		0.28	0.073	mg/Kg	☼	06/26/17 10:16	06/26/17 20:47	1
Copper	22		0.56	0.16	mg/Kg	☼	06/26/17 10:16	06/26/17 20:47	1
Iron	14000		11	5.8	mg/Kg	☼	06/26/17 10:16	06/26/17 20:47	1
Lead	62		0.27	0.13	mg/Kg	☼	06/27/17 09:39	06/27/17 17:59	1
Magnesium	42000	B	5.5	2.7	mg/Kg	☼	06/27/17 09:39	06/27/17 17:59	1
Manganese	300		0.55	0.080	mg/Kg	☼	06/27/17 09:39	06/27/17 17:59	1
Nickel	21		0.56	0.16	mg/Kg	☼	06/26/17 10:16	06/26/17 20:47	1
Potassium	1200		28	9.9	mg/Kg	☼	06/26/17 10:16	06/26/17 20:47	1
Selenium	0.41	J	0.55	0.32	mg/Kg	☼	06/27/17 09:39	06/27/17 17:59	1
Silver	<0.28		0.28	0.072	mg/Kg	☼	06/26/17 10:16	06/26/17 20:47	1
Sodium	210		56	8.3	mg/Kg	☼	06/26/17 10:16	06/26/17 20:47	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	06/27/17 09:39	06/27/17 17:59	1
Vanadium	14		0.28	0.066	mg/Kg	☼	06/26/17 10:16	06/26/17 20:47	1
Zinc	86		1.1	0.49	mg/Kg	☼	06/26/17 10:16	06/26/17 20:47	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		06/23/17 07:08	06/24/17 00:34	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/23/17 07:08	06/24/17 00:34	1
Boron	0.096	J B	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 00:34	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B01 (0-8)

Lab Sample ID: 500-129768-3

Date Collected: 06/16/17 10:10

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 88.7

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		06/23/17 07:08	06/24/17 00:34	1
Chromium	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:34	1
Cobalt	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:34	1
Iron	<0.40		0.40	0.20	mg/L		06/23/17 07:08	06/24/17 00:34	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/23/17 07:08	06/24/17 00:34	1
Manganese	0.32		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:34	1
Nickel	0.014	J	0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:34	1
Selenium	<0.050		0.050	0.020	mg/L		06/23/17 07:08	06/24/17 00:34	1
Silver	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:34	1
Zinc	0.050	J	0.50	0.020	mg/L		06/23/17 07:08	06/24/17 00:34	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/23/17 07:12	06/25/17 00:26	1
Manganese	0.13		0.025	0.010	mg/L		06/23/17 07:12	06/25/17 00:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		06/23/17 07:08	06/23/17 18:04	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/23/17 07:08	06/23/17 18:04	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		06/22/17 10:29	06/23/17 10:13	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.062	B	0.017	0.0055	mg/Kg	☼	06/21/17 08:00	06/21/17 12:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.1		0.2	0.2	SU			06/29/17 15:42	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B01 (8-16)

Lab Sample ID: 500-129768-4

Date Collected: 06/16/17 10:15

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0070	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Carbon disulfide	<0.0040		0.0040	0.00084	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
1,2-Dichloroethane	<0.0040		0.0040	0.0013	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Ethylbenzene	<0.0016		0.0016	0.00077	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
2-Hexanone	<0.0040		0.0040	0.0013	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00071	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Vinyl acetate	<0.0040		0.0040	0.0014	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Vinyl chloride	<0.0016		0.0016	0.00071	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1
Xylenes, Total	<0.0032		0.0032	0.00052	mg/Kg	☼	06/16/17 17:21	06/21/17 19:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		75 - 131	06/16/17 17:21	06/21/17 19:30	1
Dibromofluoromethane	95		75 - 126	06/16/17 17:21	06/21/17 19:30	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 134	06/16/17 17:21	06/21/17 19:30	1
Toluene-d8 (Surr)	91		75 - 124	06/16/17 17:21	06/21/17 19:30	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	☼	06/25/17 19:26	06/26/17 17:16	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B01 (8-16)

Lab Sample ID: 500-129768-4

Date Collected: 06/16/17 10:15

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
2-Methylnaphthalene	<0.077		0.077	0.0070	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
2,4-Dinitrophenol	<0.77	*	0.77	0.67	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Fluorene	0.0079	J	0.038	0.0054	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Phenanthrene	0.10		0.038	0.0053	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Anthracene	0.015	J	0.038	0.0064	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Fluoranthene	0.22		0.038	0.0071	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Pyrene	0.18		0.038	0.0076	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Benzo[a]anthracene	0.084		0.038	0.0051	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B01 (8-16)

Lab Sample ID: 500-129768-4

Date Collected: 06/16/17 10:15

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.11		0.038	0.010	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Bis(2-ethylhexyl) phthalate	0.079	J	0.19	0.070	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Benzo[b]fluoranthene	0.16		0.038	0.0082	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Benzo[k]fluoranthene	0.067		0.038	0.011	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Benzo[a]pyrene	0.098		0.038	0.0074	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Indeno[1,2,3-cd]pyrene	0.047		0.038	0.0099	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Dibenz(a,h)anthracene	0.019	J	0.038	0.0074	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
Benzo[g,h,i]perylene	0.046		0.038	0.012	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	06/25/17 19:26	06/26/17 17:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	86		46 - 133	06/25/17 19:26	06/26/17 17:16	1
Phenol-d5	77		46 - 125	06/25/17 19:26	06/26/17 17:16	1
Nitrobenzene-d5	66		41 - 120	06/25/17 19:26	06/26/17 17:16	1
2-Fluorobiphenyl	67		44 - 121	06/25/17 19:26	06/26/17 17:16	1
2,4,6-Tribromophenol	53		25 - 139	06/25/17 19:26	06/26/17 17:16	1
Terphenyl-d14	89		35 - 160	06/25/17 19:26	06/26/17 17:16	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	06/26/17 10:16	06/26/17 20:50	1
Arsenic	7.9		0.58	0.20	mg/Kg	☼	06/27/17 09:39	06/27/17 18:10	1
Barium	45		0.56	0.064	mg/Kg	☼	06/26/17 10:16	06/26/17 20:50	1
Beryllium	0.45		0.22	0.052	mg/Kg	☼	06/26/17 10:16	06/26/17 20:50	1
Boron	6.2		2.9	0.27	mg/Kg	☼	06/27/17 09:39	06/27/17 18:10	1
Cadmium	0.28	B	0.11	0.020	mg/Kg	☼	06/26/17 10:16	06/26/17 20:50	1
Calcium	33000	B	11	1.9	mg/Kg	☼	06/26/17 10:16	06/26/17 20:50	1
Chromium	13		0.56	0.28	mg/Kg	☼	06/26/17 10:16	06/26/17 20:50	1
Cobalt	10		0.28	0.073	mg/Kg	☼	06/26/17 10:16	06/26/17 20:50	1
Copper	25		0.56	0.16	mg/Kg	☼	06/26/17 10:16	06/26/17 20:50	1
Iron	18000		11	5.8	mg/Kg	☼	06/26/17 10:16	06/26/17 20:50	1
Lead	83		0.29	0.13	mg/Kg	☼	06/27/17 09:39	06/27/17 18:10	1
Magnesium	33000	B	5.8	2.9	mg/Kg	☼	06/27/17 09:39	06/27/17 18:10	1
Manganese	340		0.58	0.084	mg/Kg	☼	06/27/17 09:39	06/27/17 18:10	1
Nickel	24		0.56	0.16	mg/Kg	☼	06/26/17 10:16	06/26/17 20:50	1
Potassium	1200		28	9.9	mg/Kg	☼	06/26/17 10:16	06/26/17 20:50	1
Selenium	0.42	J	0.58	0.34	mg/Kg	☼	06/27/17 09:39	06/27/17 18:10	1
Silver	<0.28		0.28	0.072	mg/Kg	☼	06/26/17 10:16	06/26/17 20:50	1
Sodium	740		56	8.2	mg/Kg	☼	06/26/17 10:16	06/26/17 20:50	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	06/27/17 09:39	06/27/17 18:10	1
Vanadium	15		0.28	0.066	mg/Kg	☼	06/26/17 10:16	06/26/17 20:50	1
Zinc	87		1.1	0.49	mg/Kg	☼	06/26/17 10:16	06/26/17 20:50	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		06/23/17 07:08	06/24/17 00:42	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/23/17 07:08	06/24/17 00:42	1
Boron	0.11	J B	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 00:42	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B01 (8-16)

Lab Sample ID: 500-129768-4

Date Collected: 06/16/17 10:15

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0058		0.0050	0.0020	mg/L		06/23/17 07:08	06/24/17 00:42	1
Chromium	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:42	1
Cobalt	0.037		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:42	1
Iron	<0.40		0.40	0.20	mg/L		06/23/17 07:08	06/24/17 00:42	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/23/17 07:08	06/24/17 00:42	1
Manganese	4.3		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:42	1
Nickel	0.039		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:42	1
Selenium	<0.050		0.050	0.020	mg/L		06/23/17 07:08	06/24/17 00:42	1
Silver	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:42	1
Zinc	0.094	J	0.50	0.020	mg/L		06/23/17 07:08	06/24/17 00:42	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/23/17 07:12	06/25/17 00:30	1
Manganese	0.023	J	0.025	0.010	mg/L		06/23/17 07:12	06/25/17 00:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		06/23/17 07:08	06/23/17 18:08	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/23/17 07:08	06/23/17 18:08	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		06/22/17 10:29	06/23/17 10:14	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.062	B	0.018	0.0058	mg/Kg	☼	06/21/17 08:00	06/21/17 12:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.2	0.2	SU			06/29/17 15:46	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B02 (0-2)

Lab Sample ID: 500-129768-5

Date Collected: 06/16/17 12:18

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 90.1

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	☼	06/16/17 17:21	06/21/17 19:55	1
Benzene	<0.0019		0.0019	0.00048	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Bromodichloromethane	<0.0019		0.0019	0.00038	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Bromoform	<0.0019		0.0019	0.00054	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Bromomethane	<0.0047		0.0047	0.0018	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
2-Butanone (MEK)	<0.0047		0.0047	0.0021	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Carbon disulfide	<0.0047		0.0047	0.00097	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Carbon tetrachloride	<0.0019		0.0019	0.00054	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Chlorobenzene	<0.0019		0.0019	0.00069	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Chloroethane	<0.0047		0.0047	0.0014	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Chloroform	<0.0019		0.0019	0.00065	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Chloromethane	<0.0047		0.0047	0.0019	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00052	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00056	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Dibromochloromethane	<0.0019		0.0019	0.00061	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
1,1-Dichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
1,2-Dichloroethane	<0.0047		0.0047	0.0015	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
1,1-Dichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
1,2-Dichloropropane	<0.0019		0.0019	0.00048	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00065	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Ethylbenzene	<0.0019		0.0019	0.00089	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Methylene Chloride	<0.0047		0.0047	0.0018	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.0014	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00055	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Styrene	<0.0019		0.0019	0.00056	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00060	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Tetrachloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Toluene	<0.0019		0.0019	0.00047	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00083	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00065	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00063	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00080	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Trichloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Vinyl acetate	<0.0047		0.0047	0.0016	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Vinyl chloride	<0.0019		0.0019	0.00082	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1
Xylenes, Total	<0.0037		0.0037	0.00060	mg/Kg	☼	06/16/17 17:21	06/21/17 19:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		75 - 131	06/16/17 17:21	06/21/17 19:55	1
Dibromofluoromethane	92		75 - 126	06/16/17 17:21	06/21/17 19:55	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	06/16/17 17:21	06/21/17 19:55	1
Toluene-d8 (Surr)	91		75 - 124	06/16/17 17:21	06/21/17 19:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.078	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B02 (0-2)

Lab Sample ID: 500-129768-5

Date Collected: 06/16/17 12:18

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 90.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
N-Nitrosodi-n-propylamine	<0.071		0.071	0.043	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Naphthalene	0.010	J	0.035	0.0054	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
2,4-Dichlorophenol	<0.35		0.35	0.084	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
4-Chloroaniline	<0.71		0.71	0.17	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
2,4,5-Trichlorophenol	<0.35		0.35	0.081	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
2-Methylnaphthalene	0.011	J	0.071	0.0065	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
2,4-Dinitrophenol	<0.71	*	0.71	0.62	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Acenaphthylene	0.048		0.035	0.0047	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Acenaphthene	0.011	J	0.035	0.0063	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
4-Nitrophenol	<0.71		0.71	0.34	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Fluorene	0.016	J	0.035	0.0050	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Hexachlorobenzene	<0.071		0.071	0.0082	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Pentachlorophenol	<0.71		0.71	0.57	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Phenanthrene	0.36		0.035	0.0049	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Anthracene	0.089		0.035	0.0059	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Carbazole	<0.18		0.18	0.088	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Fluoranthene	1.2		0.035	0.0066	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Pyrene	1.1		0.035	0.0070	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Benzo[a]anthracene	0.58		0.035	0.0048	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B02 (0-2)

Lab Sample ID: 500-129768-5

Date Collected: 06/16/17 12:18

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 90.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.70		0.035	0.0096	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Bis(2-ethylhexyl) phthalate	0.077	J	0.18	0.065	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Benzo[b]fluoranthene	1.2		0.035	0.0076	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Benzo[k]fluoranthene	0.40		0.035	0.010	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Benzo[a]pyrene	0.67		0.035	0.0068	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Indeno[1,2,3-cd]pyrene	0.30		0.035	0.0092	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Dibenz(a,h)anthracene	0.095		0.035	0.0068	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
Benzo[g,h,i]perylene	0.32		0.035	0.011	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	06/25/17 19:26	06/26/17 17:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	86		46 - 133	06/25/17 19:26	06/26/17 17:41	1
Phenol-d5	81		46 - 125	06/25/17 19:26	06/26/17 17:41	1
Nitrobenzene-d5	68		41 - 120	06/25/17 19:26	06/26/17 17:41	1
2-Fluorobiphenyl	74		44 - 121	06/25/17 19:26	06/26/17 17:41	1
2,4,6-Tribromophenol	67		25 - 139	06/25/17 19:26	06/26/17 17:41	1
Terphenyl-d14	101		35 - 160	06/25/17 19:26	06/26/17 17:41	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	06/26/17 10:16	06/26/17 20:54	1
Arsenic	7.7		0.51	0.17	mg/Kg	☼	06/27/17 09:39	06/27/17 18:14	1
Barium	64		0.53	0.061	mg/Kg	☼	06/26/17 10:16	06/26/17 20:54	1
Beryllium	0.46		0.21	0.050	mg/Kg	☼	06/26/17 10:16	06/26/17 20:54	1
Boron	5.6		2.6	0.24	mg/Kg	☼	06/27/17 09:39	06/27/17 18:14	1
Cadmium	3.0	B	0.11	0.019	mg/Kg	☼	06/26/17 10:16	06/26/17 20:54	1
Calcium	20000	B	11	1.8	mg/Kg	☼	06/26/17 10:16	06/26/17 20:54	1
Chromium	35		0.53	0.26	mg/Kg	☼	06/26/17 10:16	06/26/17 20:54	1
Cobalt	8.1		0.27	0.070	mg/Kg	☼	06/26/17 10:16	06/26/17 20:54	1
Copper	78		0.53	0.15	mg/Kg	☼	06/26/17 10:16	06/26/17 20:54	1
Iron	13000		11	5.5	mg/Kg	☼	06/26/17 10:16	06/26/17 20:54	1
Lead	120		0.26	0.12	mg/Kg	☼	06/27/17 09:39	06/27/17 18:14	1
Magnesium	12000	B	5.1	2.5	mg/Kg	☼	06/27/17 09:39	06/27/17 18:14	1
Manganese	420		0.51	0.074	mg/Kg	☼	06/27/17 09:39	06/27/17 18:14	1
Nickel	23		0.53	0.15	mg/Kg	☼	06/26/17 10:16	06/26/17 20:54	1
Potassium	1300		27	9.4	mg/Kg	☼	06/26/17 10:16	06/26/17 20:54	1
Selenium	1.1		0.51	0.30	mg/Kg	☼	06/27/17 09:39	06/27/17 18:14	1
Silver	0.65		0.27	0.069	mg/Kg	☼	06/26/17 10:16	06/26/17 20:54	1
Sodium	83		53	7.9	mg/Kg	☼	06/26/17 10:16	06/26/17 20:54	1
Thallium	<0.51		0.51	0.26	mg/Kg	☼	06/27/17 09:39	06/27/17 18:14	1
Vanadium	14		0.27	0.063	mg/Kg	☼	06/26/17 10:16	06/26/17 20:54	1
Zinc	150		1.1	0.47	mg/Kg	☼	06/26/17 10:16	06/26/17 20:54	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		06/23/17 07:08	06/24/17 00:48	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/23/17 07:08	06/24/17 00:48	1
Boron	0.10	J B	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 00:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B02 (0-2)

Lab Sample ID: 500-129768-5

Date Collected: 06/16/17 12:18

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 90.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.015		0.0050	0.0020	mg/L		06/23/17 07:08	06/24/17 00:48	1
Chromium	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:48	1
Cobalt	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:48	1
Iron	<0.40		0.40	0.20	mg/L		06/23/17 07:08	06/24/17 00:48	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/23/17 07:08	06/24/17 00:48	1
Manganese	0.53		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:48	1
Nickel	0.014	J	0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:48	1
Selenium	<0.050		0.050	0.020	mg/L		06/23/17 07:08	06/24/17 00:48	1
Silver	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:48	1
Zinc	0.18	J	0.50	0.020	mg/L		06/23/17 07:08	06/24/17 00:48	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0030	J	0.0050	0.0020	mg/L		06/23/17 07:12	06/25/17 00:45	1
Manganese	0.094		0.025	0.010	mg/L		06/23/17 07:12	06/25/17 00:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		06/23/17 07:08	06/23/17 18:12	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/23/17 07:08	06/23/17 18:12	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		06/22/17 10:29	06/23/17 10:16	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	B	0.017	0.0056	mg/Kg	☼	06/21/17 08:00	06/21/17 12:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.2	0.2	SU			06/29/17 15:50	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B03 (0-2)

Lab Sample ID: 500-129768-6

Date Collected: 06/16/17 12:25

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 86.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0077	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Carbon disulfide	<0.0044		0.0044	0.00092	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	06/16/17 17:21	06/21/17 20:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		75 - 131	06/16/17 17:21	06/21/17 20:21	1
Dibromofluoromethane	93		75 - 126	06/16/17 17:21	06/21/17 20:21	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 134	06/16/17 17:21	06/21/17 20:21	1
Toluene-d8 (Surr)	89		75 - 124	06/16/17 17:21	06/21/17 20:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B03 (0-2)

Lab Sample ID: 500-129768-6

Date Collected: 06/16/17 12:25

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 86.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Naphthalene	0.0076	J	0.037	0.0058	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
2,4-Dichlorophenol	<0.37		0.37	0.090	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
2-Methylnaphthalene	<0.076		0.076	0.0069	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
2,4-Dinitrophenol	<0.76	*	0.76	0.66	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Acenaphthylene	0.014	J	0.037	0.0050	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Acenaphthene	0.022	J	0.037	0.0068	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Fluorene	0.027	J	0.037	0.0053	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Phenanthrene	0.68		0.037	0.0053	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Anthracene	0.097		0.037	0.0063	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Fluoranthene	1.9		0.037	0.0070	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Pyrene	1.7		0.037	0.0075	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Benzo[a]anthracene	0.79		0.037	0.0051	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B03 (0-2)

Lab Sample ID: 500-129768-6

Date Collected: 06/16/17 12:25

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 86.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	1.0		0.037	0.010	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Benzo[b]fluoranthene	1.5		0.037	0.0081	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Benzo[k]fluoranthene	0.69		0.037	0.011	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Benzo[a]pyrene	0.94		0.037	0.0073	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Indeno[1,2,3-cd]pyrene	0.39		0.037	0.0098	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Dibenz(a,h)anthracene	0.12		0.037	0.0073	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
Benzo[g,h,i]perylene	0.42		0.037	0.012	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/25/17 19:26	06/26/17 18:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	87		46 - 133	06/25/17 19:26	06/26/17 18:06	1
Phenol-d5	80		46 - 125	06/25/17 19:26	06/26/17 18:06	1
Nitrobenzene-d5	65		41 - 120	06/25/17 19:26	06/26/17 18:06	1
2-Fluorobiphenyl	73		44 - 121	06/25/17 19:26	06/26/17 18:06	1
2,4,6-Tribromophenol	76		25 - 139	06/25/17 19:26	06/26/17 18:06	1
Terphenyl-d14	100		35 - 160	06/25/17 19:26	06/26/17 18:06	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	06/26/17 10:16	06/26/17 20:58	1
Arsenic	7.9		0.51	0.18	mg/Kg	☼	06/27/17 09:39	06/27/17 18:18	1
Barium	70		0.55	0.063	mg/Kg	☼	06/26/17 10:16	06/26/17 20:58	1
Beryllium	0.61		0.22	0.051	mg/Kg	☼	06/26/17 10:16	06/26/17 20:58	1
Boron	4.5		2.6	0.24	mg/Kg	☼	06/27/17 09:39	06/27/17 18:18	1
Cadmium	0.86	B	0.11	0.020	mg/Kg	☼	06/26/17 10:16	06/26/17 20:58	1
Calcium	7300	B	11	1.9	mg/Kg	☼	06/26/17 10:16	06/26/17 20:58	1
Chromium	20		0.55	0.27	mg/Kg	☼	06/26/17 10:16	06/26/17 20:58	1
Cobalt	13		0.27	0.072	mg/Kg	☼	06/26/17 10:16	06/26/17 20:58	1
Copper	27		0.55	0.15	mg/Kg	☼	06/26/17 10:16	06/26/17 20:58	1
Iron	18000		11	5.7	mg/Kg	☼	06/26/17 10:16	06/26/17 20:58	1
Lead	73		0.26	0.12	mg/Kg	☼	06/27/17 09:39	06/27/17 18:18	1
Magnesium	7500	B	5.1	2.5	mg/Kg	☼	06/27/17 09:39	06/27/17 18:18	1
Manganese	360		0.51	0.074	mg/Kg	☼	06/27/17 09:39	06/27/17 18:18	1
Nickel	31		0.55	0.16	mg/Kg	☼	06/26/17 10:16	06/26/17 20:58	1
Potassium	1500		27	9.7	mg/Kg	☼	06/26/17 10:16	06/26/17 20:58	1
Selenium	0.70		0.51	0.30	mg/Kg	☼	06/27/17 09:39	06/27/17 18:18	1
Silver	0.097	J	0.27	0.071	mg/Kg	☼	06/26/17 10:16	06/26/17 20:58	1
Sodium	640		55	8.1	mg/Kg	☼	06/26/17 10:16	06/26/17 20:58	1
Thallium	<0.51		0.51	0.26	mg/Kg	☼	06/27/17 09:39	06/27/17 18:18	1
Vanadium	17		0.27	0.065	mg/Kg	☼	06/26/17 10:16	06/26/17 20:58	1
Zinc	100		1.1	0.48	mg/Kg	☼	06/26/17 10:16	06/26/17 20:58	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.34	J	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 00:55	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/23/17 07:08	06/24/17 00:55	1
Boron	0.12	J B	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 00:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

Client Sample ID: 2274V-08-B03 (0-2)

Lab Sample ID: 500-129768-6

Date Collected: 06/16/17 12:25

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 86.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0068		0.0050	0.0020	mg/L		06/23/17 07:08	06/24/17 00:55	1
Chromium	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:55	1
Cobalt	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:55	1
Iron	<0.40		0.40	0.20	mg/L		06/23/17 07:08	06/24/17 00:55	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/23/17 07:08	06/24/17 00:55	1
Manganese	0.55		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:55	1
Nickel	0.010	J	0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:55	1
Selenium	<0.050		0.050	0.020	mg/L		06/23/17 07:08	06/24/17 00:55	1
Silver	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 00:55	1
Zinc	0.052	J	0.50	0.020	mg/L		06/23/17 07:08	06/24/17 00:55	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0047	J	0.0050	0.0020	mg/L		06/23/17 07:12	06/25/17 00:49	1
Manganese	0.72		0.025	0.010	mg/L		06/23/17 07:12	06/25/17 00:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		06/23/17 07:08	06/23/17 18:16	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/23/17 07:08	06/23/17 18:16	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		06/22/17 10:29	06/23/17 10:17	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.077	B	0.018	0.0059	mg/Kg	☼	06/21/17 08:00	06/21/17 12:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.9		0.2	0.2	SU			06/29/17 15:54	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

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
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-3

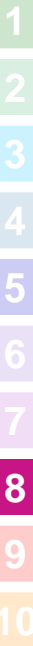
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/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 #: 500-129768
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 34.45

Client		Client Project #		Preservative		Parameter		Matrix		Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other
Project Name		Lab Project #		Sampling		Matrix		Matrix		
Project Location/State		Lab PM		Date	Time	# of Containers	Matrix	Matrix	Matrix	
E+E		1009341.0013.02								VOC SVOC Total/TCLP Metals pH/Percent Solids
176-001-W015		R. Wright								
Crestwood, IL										
EF, NH										
Lab ID	MIS/MSD	Sample ID	Date	Time	# of Containers	Matrix	Matrix	Matrix	Matrix	Comments
3		2274V-09-B01(0-8)	6/16/17	1010	5	S	X	X	X	
4		2274V-09-B01(8-16)	6/16/17	1015	5	S	X	X	X	
5		2274V-09-B02(0-2)	6/16/17	1218	5	S	X	X	X	
6		2274V-09-B03(0-2)	6/16/17	1225	5	S	X	X	X	

Turnaround Time Required (Business Days)

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

Requested Due Date _____

Sample Disposal

Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Received By: <u>[Signature]</u>	Company: <u>E+E</u>	Date: <u>6/16/17</u>	Time: <u>1510</u>	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>6/16/17</u>	Time: <u>1510</u>
Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>6/16/17</u>	Time: <u>1600</u>	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>6/16/17</u>	Time: <u>1600</u>

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

Matrix Key

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

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-129768-3

Login Number: 129768

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	3.4, 4.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

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ANALYTICAL REPORT

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

TestAmerica Job ID: 500-143305-7
Client Project/Site: IDOT - IL 83 - WO 015B

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

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
4/16/2018 5:10:16 PM
Jodie Bracken, Project Management Assistant II
jodie.bracken@testamericainc.com

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

LINKS

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Have a Question?



Visit us at:
www.testamericainc.com

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-7

Job ID: 500-143305-7

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-143305-7

Receipt

The samples were received on 4/4/2018 3:53 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.9° C.

GC/MS VOA

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

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid and/or one base surrogate outside acceptance limits: 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.2274V-08-B04 (0-4) (500-143305-13)

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

Metals

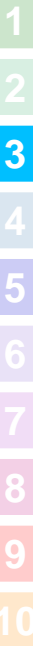
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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 83 - WO 015B

TestAmerica Job ID: 500-143305-7

Client Sample ID: 2274V-08-B04 (0-4)

Lab Sample ID: 500-143305-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0084	J	0.041	0.0063	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.0081	J	0.083	0.0075	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.016	J	0.041	0.0054	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.031	J	0.041	0.0074	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.032	J	0.041	0.0058	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.94		0.041	0.0057	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.21		0.041	0.0069	mg/Kg	1	☼	8270D	Total/NA
Carbazole	0.10	J	0.21	0.10	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	2.7		0.041	0.0076	mg/Kg	1	☼	8270D	Total/NA
Pyrene	2.0		0.041	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	1.1		0.041	0.0055	mg/Kg	1	☼	8270D	Total/NA
Chrysene	1.3		0.041	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1.9		0.041	0.0089	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.68		0.041	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	1.3		0.041	0.0079	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.71		0.041	0.011	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.19		0.041	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.72		0.041	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.5		0.57	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	73		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.72		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	6.3		2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	1.7	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	9000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	31		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	10		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	29		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	17000	B	11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	46		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	5900		5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	380		0.57	0.082	mg/Kg	1	☼	6010B	Total/NA
Nickel	27		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	1700		28	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.76	B	0.57	0.33	mg/Kg	1	☼	6010B	Total/NA
Silver	0.59		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Sodium	210		57	8.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	19		0.28	0.067	mg/Kg	1	☼	6010B	Total/NA
Zinc	120		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.32	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.086	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0067		0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.30		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.014	J B	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.072	J	0.50	0.020	mg/L	1		6010B	TCLP
Cadmium	0.0034	J	0.0050	0.0020	mg/L	1		6010B	SPLP East
Manganese	0.41		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.085		0.020	0.0066	mg/Kg	1	☼	7471B	Total/NA
pH	7.8		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 83 - WO 015B

TestAmerica Job ID: 500-143305-7

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-143305-13	2274V-08-B04 (0-4)	Solid	04/04/18 15:10	04/04/18 15:53

1

2

3

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-7

Client Sample ID: 2274V-08-B04 (0-4)

Lab Sample ID: 500-143305-13

Date Collected: 04/04/18 15:10

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 80.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0082	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Benzene	<0.0019		0.0019	0.00048	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Bromodichloromethane	<0.0019		0.0019	0.00038	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Bromoform	<0.0019		0.0019	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Bromomethane	<0.0047		0.0047	0.0018	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
2-Butanone (MEK)	<0.0047		0.0047	0.0021	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Carbon disulfide	<0.0047		0.0047	0.00098	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Carbon tetrachloride	<0.0019		0.0019	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Chlorobenzene	<0.0019		0.0019	0.00070	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Chloroethane	<0.0047		0.0047	0.0014	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Chloroform	<0.0019		0.0019	0.00065	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Chloromethane	<0.0047		0.0047	0.0019	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00053	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00057	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Dibromochloromethane	<0.0019		0.0019	0.00062	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
1,1-Dichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
1,2-Dichloroethane	<0.0047		0.0047	0.0015	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
1,1-Dichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
1,2-Dichloropropane	<0.0019		0.0019	0.00049	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00066	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Ethylbenzene	<0.0019		0.0019	0.00090	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Methylene Chloride	<0.0047		0.0047	0.0019	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.0014	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Styrene	<0.0019		0.0019	0.00057	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00060	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Tetrachloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Toluene	<0.0019		0.0019	0.00048	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00083	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00066	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00063	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00081	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Trichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Vinyl acetate	<0.0047		0.0047	0.0016	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Vinyl chloride	<0.0019		0.0019	0.00083	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1
Xylenes, Total	<0.0038		0.0038	0.00060	mg/Kg	☼	04/04/18 17:00	04/05/18 18:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		75 - 131	04/04/18 17:00	04/05/18 18:42	1
Dibromofluoromethane	105		75 - 126	04/04/18 17:00	04/05/18 18:42	1
1,2-Dichloroethane-d4 (Surr)	114		70 - 134	04/04/18 17:00	04/05/18 18:42	1
Toluene-d8 (Surr)	106		75 - 124	04/04/18 17:00	04/05/18 18:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.091	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-7

Client Sample ID: 2274V-08-B04 (0-4)

Lab Sample ID: 500-143305-13

Date Collected: 04/04/18 15:10

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 80.3

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	0.049	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Naphthalene	0.0084	J	0.041	0.0063	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
2,4,5-Trichlorophenol	<0.41		0.41	0.094	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
2-Methylnaphthalene	0.0081	J	0.083	0.0075	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
2,4-Dinitrophenol	<0.83		0.83	0.72	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Acenaphthylene	0.016	J	0.041	0.0054	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Acenaphthene	0.031	J	0.041	0.0074	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Fluorene	0.032	J	0.041	0.0058	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Hexachlorobenzene	<0.083		0.083	0.0095	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Phenanthrene	0.94		0.041	0.0057	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Anthracene	0.21		0.041	0.0069	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Carbazole	0.10	J	0.21	0.10	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Di-n-butyl phthalate	<0.21		0.21	0.062	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Fluoranthene	2.7		0.041	0.0076	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Pyrene	2.0		0.041	0.0082	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Benzo[a]anthracene	1.1		0.041	0.0055	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-7

Client Sample ID: 2274V-08-B04 (0-4)

Lab Sample ID: 500-143305-13

Date Collected: 04/04/18 15:10

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 80.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	1.3		0.041	0.011	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Benzo[b]fluoranthene	1.9		0.041	0.0089	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Benzo[k]fluoranthene	0.68		0.041	0.012	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Benzo[a]pyrene	1.3		0.041	0.0079	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Indeno[1,2,3-cd]pyrene	0.71		0.041	0.011	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Dibenz(a,h)anthracene	0.19		0.041	0.0079	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
Benzo[g,h,i]perylene	0.72		0.041	0.013	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	04/09/18 07:26	04/10/18 16:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	132		46 - 133	04/09/18 07:26	04/10/18 16:38	1
Phenol-d5	153	X	46 - 125	04/09/18 07:26	04/10/18 16:38	1
Nitrobenzene-d5	97		41 - 120	04/09/18 07:26	04/10/18 16:38	1
2-Fluorobiphenyl	108		44 - 121	04/09/18 07:26	04/10/18 16:38	1
2,4,6-Tribromophenol	105		25 - 139	04/09/18 07:26	04/10/18 16:38	1
Terphenyl-d14	115		35 - 160	04/09/18 07:26	04/10/18 16:38	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Arsenic	5.5		0.57	0.19	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Barium	73		0.57	0.065	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Beryllium	0.72		0.23	0.053	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Boron	6.3		2.8	0.26	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Cadmium	1.7	B	0.11	0.020	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Calcium	9000	B	11	1.9	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Chromium	31		0.57	0.28	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Cobalt	10		0.28	0.074	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Copper	29		0.57	0.16	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Iron	17000	B	11	5.9	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Lead	46		0.28	0.13	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Magnesium	5900		5.7	2.8	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Manganese	380		0.57	0.082	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Nickel	27		0.57	0.17	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Potassium	1700		28	10	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Selenium	0.76	B	0.57	0.33	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Silver	0.59		0.28	0.073	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Sodium	210		57	8.4	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Vanadium	19		0.28	0.067	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	1
Zinc	120		1.1	0.50	mg/Kg	☼	04/05/18 15:52	04/06/18 19:58	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		04/06/18 14:21	04/09/18 19:54	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/06/18 14:21	04/09/18 19:54	1
Boron	0.086	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 19:54	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-7

Client Sample ID: 2274V-08-B04 (0-4)

Lab Sample ID: 500-143305-13

Date Collected: 04/04/18 15:10

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 80.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0067		0.0050	0.0020	mg/L		04/06/18 14:21	04/09/18 19:54	1
Chromium	<0.025		0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:54	1
Cobalt	<0.025		0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:54	1
Iron	<0.40		0.40	0.20	mg/L		04/06/18 14:21	04/09/18 19:54	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/06/18 14:21	04/09/18 19:54	1
Manganese	0.30		0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:54	1
Nickel	0.014	J B	0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:54	1
Selenium	<0.050		0.050	0.020	mg/L		04/06/18 14:21	04/09/18 19:54	1
Silver	<0.025	F1	0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:54	1
Zinc	0.072	J	0.50	0.020	mg/L		04/06/18 14:21	04/09/18 19:54	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0034	J	0.0050	0.0020	mg/L		04/06/18 14:20	04/10/18 07:10	1
Manganese	0.41		0.025	0.010	mg/L		04/06/18 14:20	04/10/18 07:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/06/18 14:21	04/10/18 14:37	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/06/18 14:21	04/10/18 14:37	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/06/18 13:02	04/09/18 08:50	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.085		0.020	0.0066	mg/Kg	☼	04/05/18 14:15	04/06/18 09:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.2	0.2	SU			04/13/18 16:49	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-7

Qualifiers

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
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-7

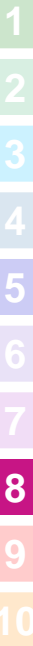
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/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



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 #: 500-143305
Chain of Custody Number: E9158-07
Page _____ of _____
Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter						Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other
Project Name		Lab Project #		Matrix								
Project Location/State		Lab PM										
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers							Comments
			Date	Time								
13		224V-08-304(04)	4-4-18	1510	25	VOC	SPEC	Total TAC	TCAP/SPEC	TAC Metals	Pb/6 Sol-D	
						X	X	X	X	X		
4-4-18												

Turnaround Time Required (Business Days)

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

Sample Disposal

Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>[Signature]</u> Company: <u>EE</u> Date: <u>4/4/18</u> Time: <u>1515</u>	Received By: <u>P. Neal</u> Company: <u>EA</u> Date: <u>4/4/18</u> Time: <u>1515</u>
Relinquished By: <u>P. Neal</u> Company: <u>EA</u> Date: <u>4/4/18</u> Time: <u>1553</u>	Received By: _____ Company: _____ Date: _____ Time: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____

Lab Courier: _____
Shipped: _____
Hand Delivered: _____

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

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-143305-7

Login Number: 143305

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn 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	4.9c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





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

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

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

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

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

I. Source Location Information

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

Project Name: FAP 344 (Illinois Route 83) Office Phone Number, if available: _____

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

5505 W. 127th Street (ISGS #2274V-15)

City: Crestwood State: IL Zip Code: 60445

County: Cook Township: Worth

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

Latitude: 41.66086 Longitude: -87.75533

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Tyler Petersen

Contact: Tyler Petersen

Email, if available: Tyler.Petersen@illinois.gov

Email, if available: Tyler.Petersen@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 344 (Illinois Route 83)

Latitude: 41.66086 Longitude: -87.75533

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 2274V-15-B01, -B02, and -B03 were sampled within the construction zone adjacent to ISGS #2274V-15 (Southwest Ice Arena/Eclipse). Refer to PSI Report for ISGS #2274V-15 (Southwest Ice Arena/Eclipse) including Table 4-3, and Figures 4-2 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 J129768-7 and J143379-1.

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 _____

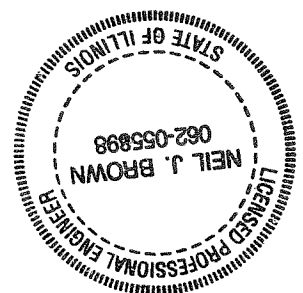
Printed Name:

Neil J. Brown

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

5/14/2018

Date:



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





Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15B

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 or not applicable.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.
- PID = Photoionization detector.
- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

- # = pH is less than 6.25 or greater than 9.0 standard units.
- ** = Headspace reading above background (outside of instrument margin of error).
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Headspace reading exceeds background levels
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15A

CONTAMINANTS OF CONCERN

SITE	ISGS #2274V-15 (Southwest Ice Arena/Eclipse)		Comparison Criteria					
	2274V-15-B01	2274V-15-B02	MACs			TACO		
BORING	2274V-15-B01	2274V-15-B02	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2274V-15-B01 (0-1)	2274V-15-B02 (0-1)						
MATRIX	Soil	Soil						
DEPTH (feet)	0-1	0-1						
pH	7.6	7.6						
VOCs (None Detected)								
SVOCs (mg/kg)								
Acenaphthene	0.012 J	0.011 J	570	--	--	4,700	120,000	--
Acenaphthylene	0.0060 J	0.0078 J	--	--	--	--	--	--
Anthracene	0.056	0.050	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.44	0.43	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.51 †	0.52 †	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.67	0.79	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.33	0.31	--	--	--	--	--	--
Benzo(k)fluoranthene	0.41	0.34	9	--	--	9	1,700	--
Bis(2-ethylhexyl) phthalate	ND U	0.29	46	--	--	46	4,100	--
Chrysene	0.57	0.59	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.090	0.085	0.09	0.42	0.2	0.42	17	--
Fluoranthene	1.1	1.0	3,100	--	--	3,100	82,000	--
Fluorene	0.016 J	0.012 J	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.29	0.27	0.9	1.6	0.9	1.6	170	--
Phenanthrene	0.39	0.32	--	--	--	--	--	--
Pyrene	0.84	0.82	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)								
Arsenic	4.7 J	5.5	11.3	13	--	13	61	--
Barium	69	64	1,500	--	--	5,500	14,000	--
Beryllium	0.54	0.61	22	--	--	160	410	--
Boron	3.3 J	3.8	40	--	--	16,000	41,000	--
Cadmium	0.31	0.36	5.2	--	--	78	200	--
Calcium	23,000	15,000	--	--	--	--	--	--
Chromium	13	14	21	--	--	230	690	--
Cobalt	11	8.8	20	--	--	4,700	12,000	--
Copper	18	21	2,900	--	--	2,900	8,200	--
Iron	13,000	14,000	15,000	15,900	--	--	--	--
Lead	26	32	107	--	--	400	700	--
Magnesium	11,000 J	10,000	325,000	--	--	--	730,000	--
Manganese	290 J	200	630	636	--	1,600	4,100	--
Nickel	23	25	100	--	--	1,600	4,100	--
Potassium	1,300	1,200	--	--	--	--	--	--
Selenium	0.36 J	0.49 J	1.3	--	--	390	1,000	--
Sodium	79	79	--	--	--	--	--	--
Vanadium	16	16	550	--	--	550	1,400	--
Zinc	68	78	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)								
Barium	0.35 J	0.29 J	--	--	--	--	--	2
Cadmium	0.0022 J	ND U	--	--	--	--	--	0.005
Manganese	0.41 L	0.34 L	--	--	--	--	--	0.15
Zinc	0.020 J	0.025 J	--	--	--	--	--	5
SPLP Metals (mg/L)								
Manganese	0.082	0.065	--	--	--	--	--	0.15

**PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15B
CONTAMINANTS OF CONCERN**

SITE	ISGS #2274V-15 (Southwest Ice Arena/Eclipse)		Comparison Criteria					
	2274V-15-B03	2274V-15-B04	MACs			TACO		
BORING	2274V-15-B03 (0-3)	2274V-15-B04 (0-3)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	Soil	Soil						
MATRIX	0-3	0-3						
DEPTH (feet)	8.0	8.1						
pH	--	--						
PID > Bkgd.								
VOCs (mg/kg)								
Acetone	0.065	0.019	25	--	--	70,000	100,000	--
SVOCs (mg/kg)								
Anthracene	0.015 J	ND U	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.12	0.046	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.15 †	0.053	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.25	0.087	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.13	0.049	--	--	--	--	--	--
Benzo(k)fluoranthene	0.075	0.031 J	9	--	--	9	1,700	--
Chrysene	0.17	0.059	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.027 J	0.010 J	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.30	0.099	3,100	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.11	0.042	0.9	1.6	0.9	1.6	170	--
Phenanthrene	0.11	0.031 J	--	--	--	--	--	--
Pyrene	0.25	0.086	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)								
Arsenic	5.1	6.3	11.3	13	--	13	61	--
Barium	110	88	1,500	--	--	5,500	14,000	--
Beryllium	2.0	1.3	22	--	--	160	410	--
Boron	7.1 J	7.5	40	--	--	16,000	41,000	--
Cadmium	0.30	0.39	5.2	--	--	78	200	--
Calcium	110,000	34,000	--	--	--	--	--	--
Chromium	15	17	21	--	--	230	690	--
Cobalt	10	20	20	--	--	4,700	12,000	--
Copper	17	21	2,900	--	--	2,900	8,200	--
Iron	14,000	18,000 †m	15,000	15,900	--	--	--	--
Lead	23	28	107	--	--	400	700	--
Magnesium	13,000	15,000	325,000	--	--	--	730,000	--
Manganese	590	550	630	636	--	1,600	4,100	--
Mercury	0.035	0.035	0.89	--	--	10	0.1	--
Nickel	23	29	100	--	--	1,600	4,100	--
Potassium	2,000	2,500	--	--	--	--	--	--
Selenium	1.0	0.66	1.3	--	--	390	1,000	--
Silver	0.32	0.31	4.4	--	--	390	1,000	--
Sodium	240	160	--	--	--	--	--	--
Vanadium	20	22	550	--	--	550	1,400	--
Zinc	63	71	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)								
Barium	0.41 J	0.35 J	--	--	--	--	--	2
Cadmium	0.0033 J	0.0024 J	--	--	--	--	--	0.005
Iron	ND U	ND U	--	--	--	--	--	5
Manganese	0.98 L	0.30 L	--	--	--	--	--	0.15
Zinc	0.028 J	ND U	--	--	--	--	--	5
SPLP Metals (mg/L)								
Manganese	0.22 L	0.099	--	--	--	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 500-129768-7
Client Project/Site: IDOT - IL 83 - WO 015

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/30/2017 11:54:36 AM

Richard Wright, Senior Project Manager
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LINKS

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www.testamericainc.com

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-7

Job ID: 500-129768-7

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-129768-7

Receipt

The samples were received on 6/16/2017 4:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 4.5° 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

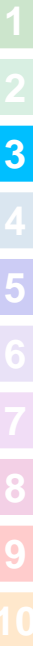
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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 83 - WO 015

TestAmerica Job ID: 500-129768-7

Client Sample ID: 2274V-15-B01 (0-1)

Lab Sample ID: 500-129768-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0060	J	0.035	0.0047	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.012	J	0.035	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.016	J	0.035	0.0050	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.39		0.035	0.0050	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.056		0.035	0.0060	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	1.1		0.035	0.0066	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.84		0.035	0.0071	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.44		0.035	0.0048	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.57		0.035	0.0097	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.67		0.035	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.41		0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.51		0.035	0.0069	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.29		0.035	0.0092	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.090		0.035	0.0069	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.33		0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.7	F1	0.54	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	69		0.53	0.060	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.54		0.21	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	3.3	F1	2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.31	B	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	23000	B	11	1.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	13		0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.26	0.069	mg/Kg	1	☼	6010B	Total/NA
Copper	18		0.53	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	13000		11	5.5	mg/Kg	1	☼	6010B	Total/NA
Lead	26		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	11000	B F2	5.4	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	290		0.54	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	23		0.53	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		26	9.3	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.36	J F1	0.54	0.32	mg/Kg	1	☼	6010B	Total/NA
Sodium	79		53	7.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.26	0.062	mg/Kg	1	☼	6010B	Total/NA
Zinc	68		1.1	0.46	mg/Kg	1	☼	6010B	Total/NA
Barium	0.35	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.10	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0022	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.41		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.020	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.082		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.043	B	0.016	0.0054	mg/Kg	1	☼	7471B	Total/NA
pH	7.6		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-15-B02 (0-1)

Lab Sample ID: 500-129768-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0078	J	0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.011	J	0.036	0.0065	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.012	J	0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.32		0.036	0.0051	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 83 - WO 015

TestAmerica Job ID: 500-129768-7

Client Sample ID: 2274V-15-B02 (0-1) (Continued)

Lab Sample ID: 500-129768-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.050		0.036	0.0061	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	1.0		0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.82		0.036	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.43		0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.59		0.036	0.0099	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) pthalate	0.29		0.18	0.066	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.79		0.036	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.34		0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.52		0.036	0.0070	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.27		0.036	0.0094	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.085		0.036	0.0070	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.31		0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.5		0.53	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	64		0.55	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.61		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	3.8		2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.36	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	15000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	14		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.8		0.27	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	21		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	14000		11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	32		0.27	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	10000	B	5.3	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	200		0.53	0.077	mg/Kg	1	☼	6010B	Total/NA
Nickel	25		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1200		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.49	J	0.53	0.31	mg/Kg	1	☼	6010B	Total/NA
Sodium	79		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	78		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.29	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J B	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.34		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.025	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.065		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.045	B	0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	7.6		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 83 - WO 015

TestAmerica Job ID: 500-129768-7

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-129768-11	2274V-15-B01 (0-1)	Solid	06/16/17 13:25	06/16/17 16:00
500-129768-12	2274V-15-B02 (0-1)	Solid	06/16/17 13:32	06/16/17 16:00

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-7

Client Sample ID: 2274V-15-B01 (0-1)

Lab Sample ID: 500-129768-11

Date Collected: 06/16/17 13:25

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 90.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.022		0.022	0.0096	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Benzene	<0.0022		0.0022	0.00056	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Bromodichloromethane	<0.0022		0.0022	0.00045	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Bromoform	<0.0022		0.0022	0.00064	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Bromomethane	<0.0055		0.0055	0.0021	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
2-Butanone (MEK)	<0.0055		0.0055	0.0024	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Carbon disulfide	<0.0055		0.0055	0.0011	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Carbon tetrachloride	<0.0022		0.0022	0.00064	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Chlorobenzene	<0.0022		0.0022	0.00081	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Chloroethane	<0.0055		0.0055	0.0016	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Chloroform	<0.0022		0.0022	0.00076	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Chloromethane	<0.0055		0.0055	0.0022	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
cis-1,2-Dichloroethene	<0.0022		0.0022	0.00062	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
cis-1,3-Dichloropropene	<0.0022		0.0022	0.00066	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Dibromochloromethane	<0.0022		0.0022	0.00072	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
1,1-Dichloroethane	<0.0022		0.0022	0.00075	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
1,2-Dichloroethane	<0.0055		0.0055	0.0017	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
1,1-Dichloroethene	<0.0022		0.0022	0.00076	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
1,2-Dichloropropane	<0.0022		0.0022	0.00057	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
1,3-Dichloropropane, Total	<0.0022		0.0022	0.00077	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Ethylbenzene	<0.0022		0.0022	0.0011	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
2-Hexanone	<0.0055		0.0055	0.0017	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Methylene Chloride	<0.0055		0.0055	0.0022	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
4-Methyl-2-pentanone (MIBK)	<0.0055		0.0055	0.0016	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Methyl tert-butyl ether	<0.0022		0.0022	0.00065	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Styrene	<0.0022		0.0022	0.00067	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
1,1,2,2-Tetrachloroethane	<0.0022		0.0022	0.00070	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Tetrachloroethene	<0.0022		0.0022	0.00075	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Toluene	<0.0022		0.0022	0.00056	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
trans-1,2-Dichloroethene	<0.0022		0.0022	0.00098	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
trans-1,3-Dichloropropene	<0.0022		0.0022	0.00077	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
1,1,1-Trichloroethane	<0.0022		0.0022	0.00074	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
1,1,2-Trichloroethane	<0.0022		0.0022	0.00095	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Trichloroethene	<0.0022		0.0022	0.00074	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Vinyl acetate	<0.0055		0.0055	0.0019	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Vinyl chloride	<0.0022		0.0022	0.00097	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1
Xylenes, Total	<0.0044		0.0044	0.00070	mg/Kg	☼	06/16/17 17:21	06/22/17 18:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	06/16/17 17:21	06/22/17 18:46	1
Dibromofluoromethane	91		75 - 126	06/16/17 17:21	06/22/17 18:46	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	06/16/17 17:21	06/22/17 18:46	1
Toluene-d8 (Surr)	97		75 - 124	06/16/17 17:21	06/22/17 18:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.079	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-7

Client Sample ID: 2274V-15-B01 (0-1)

Lab Sample ID: 500-129768-11

Date Collected: 06/16/17 13:25

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 90.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
N-Nitrosodi-n-propylamine	<0.072		0.072	0.044	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Nitrobenzene	<0.035		0.035	0.0089	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
2,4-Dimethylphenol	<0.35		0.35	0.14	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Naphthalene	<0.035		0.035	0.0055	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
2,4-Dichlorophenol	<0.35		0.35	0.085	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
4-Chloroaniline	<0.72		0.72	0.17	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
2,4,5-Trichlorophenol	<0.35		0.35	0.081	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Hexachlorocyclopentadiene	<0.72		0.72	0.20	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
2-Methylnaphthalene	<0.072		0.072	0.0066	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
2-Nitrophenol	<0.35		0.35	0.084	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
2,4-Dinitrophenol	<0.72		0.72	0.63	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Acenaphthylene	0.0060	J	0.035	0.0047	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Acenaphthene	0.012	J	0.035	0.0064	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
4-Nitrophenol	<0.72		0.72	0.34	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Fluorene	0.016	J	0.035	0.0050	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Hexachlorobenzene	<0.072		0.072	0.0083	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Pentachlorophenol	<0.72		0.72	0.57	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
4,6-Dinitro-2-methylphenol	<0.72		0.72	0.29	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Phenanthrene	0.39		0.035	0.0050	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Anthracene	0.056		0.035	0.0060	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Carbazole	<0.18		0.18	0.089	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Fluoranthene	1.1		0.035	0.0066	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Pyrene	0.84		0.035	0.0071	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Butyl benzyl phthalate	<0.18		0.18	0.068	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Benzo[a]anthracene	0.44		0.035	0.0048	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-7

Client Sample ID: 2274V-15-B01 (0-1)

Lab Sample ID: 500-129768-11

Date Collected: 06/16/17 13:25

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 90.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.57		0.035	0.0097	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Benzo[b]fluoranthene	0.67		0.035	0.0077	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Benzo[k]fluoranthene	0.41		0.035	0.011	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Benzo[a]pyrene	0.51		0.035	0.0069	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Indeno[1,2,3-cd]pyrene	0.29		0.035	0.0092	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Dibenz(a,h)anthracene	0.090		0.035	0.0069	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
Benzo[g,h,i]perylene	0.33		0.035	0.011	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	06/25/17 19:26	06/26/17 13:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	87		46 - 133	06/25/17 19:26	06/26/17 13:30	1
Phenol-d5	84		46 - 125	06/25/17 19:26	06/26/17 13:30	1
Nitrobenzene-d5	70		41 - 120	06/25/17 19:26	06/26/17 13:30	1
2-Fluorobiphenyl	72		44 - 121	06/25/17 19:26	06/26/17 13:30	1
2,4,6-Tribromophenol	83		25 - 139	06/25/17 19:26	06/26/17 13:30	1
Terphenyl-d14	90		35 - 160	06/25/17 19:26	06/26/17 13:30	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	06/26/17 10:16	06/26/17 21:17	1
Arsenic	4.7	F1	0.54	0.19	mg/Kg	☼	06/27/17 09:39	06/27/17 18:37	1
Barium	69		0.53	0.060	mg/Kg	☼	06/26/17 10:16	06/26/17 21:17	1
Beryllium	0.54		0.21	0.049	mg/Kg	☼	06/26/17 10:16	06/26/17 21:17	1
Boron	3.3	F1	2.7	0.25	mg/Kg	☼	06/27/17 09:39	06/27/17 18:37	1
Cadmium	0.31	B	0.11	0.019	mg/Kg	☼	06/26/17 10:16	06/26/17 21:17	1
Calcium	23000	B	11	1.8	mg/Kg	☼	06/26/17 10:16	06/26/17 21:17	1
Chromium	13		0.53	0.26	mg/Kg	☼	06/26/17 10:16	06/26/17 21:17	1
Cobalt	11		0.26	0.069	mg/Kg	☼	06/26/17 10:16	06/26/17 21:17	1
Copper	18		0.53	0.15	mg/Kg	☼	06/26/17 10:16	06/26/17 21:17	1
Iron	13000		11	5.5	mg/Kg	☼	06/26/17 10:16	06/26/17 21:17	1
Lead	26		0.27	0.13	mg/Kg	☼	06/27/17 09:39	06/27/17 18:37	1
Magnesium	11000	B F2	5.4	2.7	mg/Kg	☼	06/27/17 09:39	06/27/17 18:37	1
Manganese	290		0.54	0.079	mg/Kg	☼	06/27/17 09:39	06/27/17 18:37	1
Nickel	23		0.53	0.15	mg/Kg	☼	06/26/17 10:16	06/26/17 21:17	1
Potassium	1300		26	9.3	mg/Kg	☼	06/26/17 10:16	06/26/17 21:17	1
Selenium	0.36	J F1	0.54	0.32	mg/Kg	☼	06/27/17 09:39	06/27/17 18:37	1
Silver	<0.26		0.26	0.068	mg/Kg	☼	06/26/17 10:16	06/26/17 21:17	1
Sodium	79		53	7.8	mg/Kg	☼	06/26/17 10:16	06/26/17 21:17	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	06/27/17 09:39	06/27/17 18:37	1
Vanadium	16		0.26	0.062	mg/Kg	☼	06/26/17 10:16	06/26/17 21:17	1
Zinc	68		1.1	0.46	mg/Kg	☼	06/26/17 10:16	06/26/17 21:17	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		06/23/17 07:08	06/24/17 01:38	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/23/17 07:08	06/24/17 01:38	1
Boron	0.10	J B	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 01:38	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-7

Client Sample ID: 2274V-15-B01 (0-1)

Lab Sample ID: 500-129768-11

Date Collected: 06/16/17 13:25

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 90.8

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	-	06/23/17 07:08	06/24/17 01:38	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 01:38	1
Cobalt	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 01:38	1
Iron	<0.40		0.40	0.20	mg/L	-	06/23/17 07:08	06/24/17 01:38	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/23/17 07:08	06/24/17 01:38	1
Manganese	0.41		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 01:38	1
Nickel	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 01:38	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/23/17 07:08	06/24/17 01:38	1
Silver	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 01:38	1
Zinc	0.020	J	0.50	0.020	mg/L	-	06/23/17 07:08	06/24/17 01:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.082		0.025	0.010	mg/L	-	06/23/17 07:12	06/25/17 01:15	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	-	06/23/17 07:08	06/23/17 18:45	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/23/17 07:08	06/23/17 18:45	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	06/22/17 10:29	06/23/17 10:27	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.043	B	0.016	0.0054	mg/Kg	☼	06/21/17 08:00	06/21/17 12:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.2	0.2	SU	-		06/29/17 16:14	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-7

Client Sample ID: 2274V-15-B02 (0-1)

Lab Sample ID: 500-129768-12

Date Collected: 06/16/17 13:32

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 89.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.024		0.024	0.011	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Benzene	<0.0024		0.0024	0.00062	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Bromodichloromethane	<0.0024		0.0024	0.00049	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Bromoform	<0.0024		0.0024	0.00071	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Bromomethane	<0.0061		0.0061	0.0023	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
2-Butanone (MEK)	<0.0061		0.0061	0.0027	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Carbon disulfide	<0.0061		0.0061	0.0013	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Carbon tetrachloride	<0.0024		0.0024	0.00070	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Chlorobenzene	<0.0024		0.0024	0.00090	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Chloroethane	<0.0061		0.0061	0.0018	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Chloroform	<0.0024		0.0024	0.00084	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Chloromethane	<0.0061		0.0061	0.0024	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
cis-1,2-Dichloroethene	<0.0024		0.0024	0.00068	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
cis-1,3-Dichloropropene	<0.0024		0.0024	0.00073	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Dibromochloromethane	<0.0024		0.0024	0.00079	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
1,1-Dichloroethane	<0.0024		0.0024	0.00083	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
1,2-Dichloroethane	<0.0061		0.0061	0.0019	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
1,1-Dichloroethene	<0.0024		0.0024	0.00084	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
1,2-Dichloropropane	<0.0024		0.0024	0.00063	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
1,3-Dichloropropane, Total	<0.0024		0.0024	0.00085	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Ethylbenzene	<0.0024		0.0024	0.0012	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
2-Hexanone	<0.0061		0.0061	0.0019	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Methylene Chloride	<0.0061		0.0061	0.0024	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
4-Methyl-2-pentanone (MIBK)	<0.0061		0.0061	0.0018	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Methyl tert-butyl ether	<0.0024		0.0024	0.00071	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Styrene	<0.0024		0.0024	0.00073	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
1,1,2,2-Tetrachloroethane	<0.0024		0.0024	0.00078	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Tetrachloroethene	<0.0024		0.0024	0.00083	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Toluene	<0.0024		0.0024	0.00061	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
trans-1,2-Dichloroethene	<0.0024		0.0024	0.0011	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
trans-1,3-Dichloropropene	<0.0024		0.0024	0.00085	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
1,1,1-Trichloroethane	<0.0024		0.0024	0.00081	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
1,1,2-Trichloroethane	<0.0024		0.0024	0.0010	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Trichloroethene	<0.0024		0.0024	0.00082	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Vinyl acetate	<0.0061		0.0061	0.0021	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Vinyl chloride	<0.0024		0.0024	0.0011	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1
Xylenes, Total	<0.0049		0.0049	0.00078	mg/Kg	☼	06/16/17 17:21	06/22/17 19:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		75 - 131	06/16/17 17:21	06/22/17 19:11	1
Dibromofluoromethane	90		75 - 126	06/16/17 17:21	06/22/17 19:11	1
1,2-Dichloroethane-d4 (Surr)	89		70 - 134	06/16/17 17:21	06/22/17 19:11	1
Toluene-d8 (Surr)	95		75 - 124	06/16/17 17:21	06/22/17 19:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.081	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-7

Client Sample ID: 2274V-15-B02 (0-1)

Lab Sample ID: 500-129768-12

Date Collected: 06/16/17 13:32

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 89.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
2,4,5-Trichlorophenol	<0.36		0.36	0.083	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
2-Methylnaphthalene	<0.073		0.073	0.0067	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
2-Nitrophenol	<0.36		0.36	0.086	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
2,4-Dinitrophenol	<0.73		0.73	0.64	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Acenaphthylene	0.0078	J	0.036	0.0048	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Acenaphthene	0.011	J	0.036	0.0065	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
4-Nitrophenol	<0.73		0.73	0.35	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Fluorene	0.012	J	0.036	0.0051	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Phenanthrene	0.32		0.036	0.0051	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Anthracene	0.050		0.036	0.0061	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Carbazole	<0.18		0.18	0.091	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Fluoranthene	1.0		0.036	0.0067	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Pyrene	0.82		0.036	0.0072	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Benzo[a]anthracene	0.43		0.036	0.0049	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-7

Client Sample ID: 2274V-15-B02 (0-1)

Lab Sample ID: 500-129768-12

Date Collected: 06/16/17 13:32

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 89.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.59		0.036	0.0099	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Bis(2-ethylhexyl) phthalate	0.29		0.18	0.066	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Benzo[b]fluoranthene	0.79		0.036	0.0078	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Benzo[k]fluoranthene	0.34		0.036	0.011	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Benzo[a]pyrene	0.52		0.036	0.0070	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Indeno[1,2,3-cd]pyrene	0.27		0.036	0.0094	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Dibenz(a,h)anthracene	0.085		0.036	0.0070	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
Benzo[g,h,i]perylene	0.31		0.036	0.012	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	06/25/17 19:26	06/26/17 13:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	93		46 - 133	06/25/17 19:26	06/26/17 13:55	1
Phenol-d5	89		46 - 125	06/25/17 19:26	06/26/17 13:55	1
Nitrobenzene-d5	73		41 - 120	06/25/17 19:26	06/26/17 13:55	1
2-Fluorobiphenyl	78		44 - 121	06/25/17 19:26	06/26/17 13:55	1
2,4,6-Tribromophenol	88		25 - 139	06/25/17 19:26	06/26/17 13:55	1
Terphenyl-d14	96		35 - 160	06/25/17 19:26	06/26/17 13:55	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	06/26/17 10:16	06/26/17 21:21	1
Arsenic	5.5		0.53	0.18	mg/Kg	☼	06/27/17 09:39	06/27/17 19:04	1
Barium	64		0.55	0.062	mg/Kg	☼	06/26/17 10:16	06/26/17 21:21	1
Beryllium	0.61		0.22	0.051	mg/Kg	☼	06/26/17 10:16	06/26/17 21:21	1
Boron	3.8		2.7	0.25	mg/Kg	☼	06/27/17 09:39	06/27/17 19:04	1
Cadmium	0.36	B	0.11	0.020	mg/Kg	☼	06/26/17 10:16	06/26/17 21:21	1
Calcium	15000	B	11	1.9	mg/Kg	☼	06/26/17 10:16	06/26/17 21:21	1
Chromium	14		0.55	0.27	mg/Kg	☼	06/26/17 10:16	06/26/17 21:21	1
Cobalt	8.8		0.27	0.072	mg/Kg	☼	06/26/17 10:16	06/26/17 21:21	1
Copper	21		0.55	0.15	mg/Kg	☼	06/26/17 10:16	06/26/17 21:21	1
Iron	14000		11	5.7	mg/Kg	☼	06/26/17 10:16	06/26/17 21:21	1
Lead	32		0.27	0.12	mg/Kg	☼	06/27/17 09:39	06/27/17 19:04	1
Magnesium	10000	B	5.3	2.7	mg/Kg	☼	06/27/17 09:39	06/27/17 19:04	1
Manganese	200		0.53	0.077	mg/Kg	☼	06/27/17 09:39	06/27/17 19:04	1
Nickel	25		0.55	0.16	mg/Kg	☼	06/26/17 10:16	06/26/17 21:21	1
Potassium	1200		27	9.7	mg/Kg	☼	06/26/17 10:16	06/26/17 21:21	1
Selenium	0.49	J	0.53	0.31	mg/Kg	☼	06/27/17 09:39	06/27/17 19:04	1
Silver	<0.27		0.27	0.070	mg/Kg	☼	06/26/17 10:16	06/26/17 21:21	1
Sodium	79		55	8.1	mg/Kg	☼	06/26/17 10:16	06/26/17 21:21	1
Thallium	<0.53		0.53	0.27	mg/Kg	☼	06/27/17 09:39	06/27/17 19:04	1
Vanadium	16		0.27	0.064	mg/Kg	☼	06/26/17 10:16	06/26/17 21:21	1
Zinc	78		1.1	0.48	mg/Kg	☼	06/26/17 10:16	06/26/17 21:21	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.29	J	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 01:43	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/23/17 07:08	06/24/17 01:43	1
Boron	0.11	J B	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 01:43	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-7

Client Sample ID: 2274V-15-B02 (0-1)

Lab Sample ID: 500-129768-12

Date Collected: 06/16/17 13:32

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 89.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/23/17 07:08	06/24/17 01:43	1
Chromium	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 01:43	1
Cobalt	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 01:43	1
Iron	<0.40		0.40	0.20	mg/L		06/23/17 07:08	06/24/17 01:43	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/23/17 07:08	06/24/17 01:43	1
Manganese	0.34		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 01:43	1
Nickel	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 01:43	1
Selenium	<0.050		0.050	0.020	mg/L		06/23/17 07:08	06/24/17 01:43	1
Silver	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 01:43	1
Zinc	0.025	J	0.50	0.020	mg/L		06/23/17 07:08	06/24/17 01:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.065		0.025	0.010	mg/L		06/23/17 07:12	06/25/17 01:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		06/23/17 07:08	06/23/17 18:49	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/23/17 07:08	06/23/17 18:49	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		06/22/17 10:29	06/23/17 10:29	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.045	B	0.018	0.0059	mg/Kg	☼	06/21/17 08:00	06/21/17 13:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.2	0.2	SU			06/29/17 16:18	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-7

Qualifiers

GC/MS Semi VOA

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

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-7

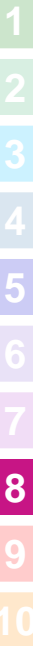
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/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

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 Address: _____
 Address: _____
 Phone: _____
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 PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-129768
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 3.4, 4.5

Client		Client Project #		Preservative		Parameter		Matrix		Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other																																																																																
Project Name		Project Location/State		Lab Project #		Lab PM		Sampler																																																																																		
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix			Comments																																																																																	
			Date	Time																																																																																						
EVE		1009341-0015-02								VOC SVOC Total/TCDF Metals pH/Percent Solids																																																																																
176-001-W015		Crestwood, IL																																																																																								
EF, JIF		R. Wright																																																																																								
4		2274V-15-B01(CO-1)	6/16/17	1325	5	S																																																																																				
12		2274V-15-B02(CO-1)	6/16/17	1332	5	S																																																																																				
 <table border="1"> <thead> <tr> <th>Lab ID</th> <th>MS/MSD</th> <th>Sample ID</th> <th>Date</th> <th>Time</th> <th># of Containers</th> <th>Matrix</th> <th>Comments</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> 											Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	Comments																																																																								
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Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other
 Requested Due Date _____

Sample Disposal
 Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>[Signature]</u> Company: <u>EVE</u> Date: <u>6/16/17</u> Time: <u>1510</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/16/17</u> Time: <u>1510</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/16/17</u> Time: <u>1600</u>	Received By: <u>[Signature]</u> Company: <u>TA-EVE</u> Date: <u>6/16/17</u> Time: <u>1600</u>

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

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

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-129768-7

Login Number: 129768

List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4, 4.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 500-143379-1
Client Project/Site: IDOT - IL 83 - WO 015B

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

Attn: Mr. Dean Tiebout



Authorized for release by:
4/18/2018 8:27:20 AM

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

LINKS

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www.testamericainc.com

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-1

Job ID: 500-143379-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-143379-1

Receipt

The samples were received on 4/5/2018 2:42 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.8° 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.

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Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-1

Client Sample ID: 2274V-15-B03 (0-3)

Lab Sample ID: 500-143379-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.065		0.019	0.0084	mg/Kg	1	☼	8260B	Total/NA
Chloroform	0.0013	J B	0.0019	0.00067	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.11		0.041	0.0057	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.015	J	0.041	0.0069	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.30		0.041	0.0076	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.25		0.041	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.12		0.041	0.0055	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.17		0.041	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.25		0.041	0.0089	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.075		0.041	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.15		0.041	0.0080	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.11		0.041	0.011	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.027	J	0.041	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.13		0.041	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.1		0.59	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	110		0.59	0.067	mg/Kg	1	☼	6010B	Total/NA
Beryllium	2.0		0.23	0.055	mg/Kg	1	☼	6010B	Total/NA
Boron	7.1		2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.30	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	110000	B	120	20	mg/Kg	10	☼	6010B	Total/NA
Chromium	15		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	10		0.29	0.077	mg/Kg	1	☼	6010B	Total/NA
Copper	17		0.59	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	14000	B	12	6.1	mg/Kg	1	☼	6010B	Total/NA
Lead	23		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	13000		5.9	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	590		0.59	0.085	mg/Kg	1	☼	6010B	Total/NA
Nickel	23		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	2000		29	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	1.0		0.59	0.34	mg/Kg	1	☼	6010B	Total/NA
Silver	0.32		0.29	0.076	mg/Kg	1	☼	6010B	Total/NA
Sodium	240		59	8.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.29	0.069	mg/Kg	1	☼	6010B	Total/NA
Zinc	63		1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Barium	0.41	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.12	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0033	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.98		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.017	J B	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.028	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.22		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.035		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	8.0		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-15-B04 (0-3)

Lab Sample ID: 500-143379-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.019		0.018	0.0077	mg/Kg	1	☼	8260B	Total/NA
Chloroform	0.0012	J B	0.0018	0.00061	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.031	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 83 - WO 015B

TestAmerica Job ID: 500-143379-1

Client Sample ID: 2274V-15-B04 (0-3) (Continued)

Lab Sample ID: 500-143379-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.099		0.040	0.0074	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.086		0.040	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.046		0.040	0.0054	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.059		0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.087		0.040	0.0086	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.031	J	0.040	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.053		0.040	0.0078	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.042		0.040	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.010	J	0.040	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.049		0.040	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.3		0.61	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	88		0.61	0.069	mg/Kg	1	☼	6010B	Total/NA
Beryllium	1.3		0.24	0.057	mg/Kg	1	☼	6010B	Total/NA
Boron	7.5		2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.39	B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Calcium	34000	B	12	2.1	mg/Kg	1	☼	6010B	Total/NA
Chromium	17		0.61	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	20		0.30	0.079	mg/Kg	1	☼	6010B	Total/NA
Copper	21		0.61	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	18000	B	12	6.3	mg/Kg	1	☼	6010B	Total/NA
Lead	28		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	15000		6.1	3.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	550		0.61	0.088	mg/Kg	1	☼	6010B	Total/NA
Nickel	29		0.61	0.18	mg/Kg	1	☼	6010B	Total/NA
Potassium	2500		30	11	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.66		0.61	0.36	mg/Kg	1	☼	6010B	Total/NA
Silver	0.31		0.30	0.078	mg/Kg	1	☼	6010B	Total/NA
Sodium	160		61	9.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	22		0.30	0.072	mg/Kg	1	☼	6010B	Total/NA
Zinc	71		1.2	0.53	mg/Kg	1	☼	6010B	Total/NA
Barium	0.35	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.094	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0024	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.30		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.012	J B	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.099		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.035		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	8.1		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 83 - WO 015B

TestAmerica Job ID: 500-143379-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-143379-1	2274V-15-B03 (0-3)	Solid	04/05/18 09:40	04/05/18 14:42
500-143379-2	2274V-15-B04 (0-3)	Solid	04/05/18 09:55	04/05/18 14:42

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-1

Client Sample ID: 2274V-15-B03 (0-3)

Lab Sample ID: 500-143379-1

Date Collected: 04/05/18 09:40

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 78.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.065		0.019	0.0084	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Bromoform	<0.0019		0.0019	0.00057	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
2-Butanone (MEK)	<0.0048		0.0048	0.0022	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Carbon disulfide	<0.0048		0.0048	0.0010	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Chlorobenzene	<0.0019		0.0019	0.00071	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Chloroethane	<0.0048		0.0048	0.0014	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Chloroform	0.0013	J B	0.0019	0.00067	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00058	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
1,1-Dichloroethane	<0.0019		0.0019	0.00066	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
1,1-Dichloroethene	<0.0019		0.0019	0.00067	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00068	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Ethylbenzene	<0.0019		0.0019	0.00093	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00057	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Styrene	<0.0019		0.0019	0.00059	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Tetrachloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Toluene	<0.0019		0.0019	0.00049	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00086	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00068	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00083	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Trichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Vinyl acetate	<0.0048		0.0048	0.0017	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Vinyl chloride	<0.0019		0.0019	0.00086	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1
Xylenes, Total	<0.0039		0.0039	0.00062	mg/Kg	☼	04/05/18 16:43	04/09/18 20:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		75 - 131	04/05/18 16:43	04/09/18 20:43	1
Dibromofluoromethane	108		75 - 126	04/05/18 16:43	04/09/18 20:43	1
1,2-Dichloroethane-d4 (Surr)	115		70 - 134	04/05/18 16:43	04/09/18 20:43	1
Toluene-d8 (Surr)	107		75 - 124	04/05/18 16:43	04/09/18 20:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.092	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-1

Client Sample ID: 2274V-15-B03 (0-3)

Lab Sample ID: 500-143379-1

Date Collected: 04/05/18 09:40

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 78.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Hexachloroethane	<0.21		0.21	0.063	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
2,4-Dichlorophenol	<0.41		0.41	0.098	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
2,4,5-Trichlorophenol	<0.41		0.41	0.094	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
2-Methylnaphthalene	<0.083		0.083	0.0076	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
2-Chloronaphthalene	<0.21		0.21	0.046	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
2,4-Dinitrophenol	<0.83		0.83	0.73	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
2,4-Dinitrotoluene	<0.21		0.21	0.066	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Hexachlorobenzene	<0.083		0.083	0.0096	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
N-Nitrosodiphenylamine	<0.21		0.21	0.049	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Phenanthrene	0.11		0.041	0.0057	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Anthracene	0.015 J		0.041	0.0069	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Fluoranthene	0.30		0.041	0.0076	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Pyrene	0.25		0.041	0.0082	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Benzo[a]anthracene	0.12		0.041	0.0055	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-1

Client Sample ID: 2274V-15-B03 (0-3)

Lab Sample ID: 500-143379-1

Date Collected: 04/05/18 09:40

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 78.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.17		0.041	0.011	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.058	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Benzo[b]fluoranthene	0.25		0.041	0.0089	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Benzo[k]fluoranthene	0.075		0.041	0.012	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Benzo[a]pyrene	0.15		0.041	0.0080	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Indeno[1,2,3-cd]pyrene	0.11		0.041	0.011	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Dibenz(a,h)anthracene	0.027	J	0.041	0.0080	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
Benzo[g,h,i]perylene	0.13		0.041	0.013	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1
3 & 4 Methylphenol	<0.21		0.21	0.069	mg/Kg	☼	04/06/18 16:32	04/10/18 13:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	112		46 - 133	04/06/18 16:32	04/10/18 13:20	1
Phenol-d5	122		46 - 125	04/06/18 16:32	04/10/18 13:20	1
Nitrobenzene-d5	104		41 - 120	04/06/18 16:32	04/10/18 13:20	1
2-Fluorobiphenyl	97		44 - 121	04/06/18 16:32	04/10/18 13:20	1
2,4,6-Tribromophenol	91		25 - 139	04/06/18 16:32	04/10/18 13:20	1
Terphenyl-d14	108		35 - 160	04/06/18 16:32	04/10/18 13:20	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1
Arsenic	5.1		0.59	0.20	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1
Barium	110		0.59	0.067	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1
Beryllium	2.0		0.23	0.055	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1
Boron	7.1		2.9	0.27	mg/Kg	☼	04/10/18 07:48	04/11/18 22:51	1
Cadmium	0.30	B	0.12	0.021	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1
Calcium	110000	B	120	20	mg/Kg	☼	04/06/18 07:37	04/09/18 22:36	10
Chromium	15		0.59	0.29	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1
Cobalt	10		0.29	0.077	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1
Copper	17		0.59	0.16	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1
Iron	14000	B	12	6.1	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1
Lead	23		0.29	0.14	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1
Magnesium	13000		5.9	2.9	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1
Manganese	590		0.59	0.085	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1
Nickel	23		0.59	0.17	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1
Potassium	2000		29	10	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1
Selenium	1.0		0.59	0.34	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1
Silver	0.32		0.29	0.076	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1
Sodium	240		59	8.7	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1
Vanadium	20		0.29	0.069	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1
Zinc	63		1.2	0.51	mg/Kg	☼	04/06/18 07:37	04/06/18 16:51	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.41	J	0.50	0.050	mg/L		04/10/18 06:49	04/11/18 02:28	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/10/18 06:49	04/11/18 02:28	1
Boron	0.12	J B	0.50	0.050	mg/L		04/10/18 06:49	04/11/18 02:28	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-1

Client Sample ID: 2274V-15-B03 (0-3)

Lab Sample ID: 500-143379-1

Date Collected: 04/05/18 09:40

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 78.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0033	J	0.0050	0.0020	mg/L	-	04/10/18 06:49	04/11/18 02:28	1
Chromium	<0.025		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:28	1
Cobalt	<0.025		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:28	1
Iron	<0.40		0.40	0.20	mg/L	-	04/10/18 06:49	04/11/18 02:28	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	04/10/18 06:49	04/11/18 02:28	1
Manganese	0.98		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:28	1
Nickel	0.017	J B	0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:28	1
Selenium	<0.050		0.050	0.020	mg/L	-	04/10/18 06:49	04/11/18 02:28	1
Silver	<0.025		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:28	1
Zinc	0.028	J	0.50	0.020	mg/L	-	04/10/18 06:49	04/11/18 02:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.22		0.025	0.010	mg/L	-	04/10/18 06:50	04/11/18 02:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	04/10/18 06:49	04/10/18 14:45	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	04/10/18 06:49	04/10/18 14:45	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	04/09/18 11:45	04/10/18 08:59	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.035		0.018	0.0061	mg/Kg	☼	04/10/18 13:30	04/11/18 09:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.0		0.2	0.2	SU	-		04/17/18 14:50	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-1

Client Sample ID: 2274V-15-B04 (0-3)

Lab Sample ID: 500-143379-2

Date Collected: 04/05/18 09:55

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 79.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.019		0.018	0.0077	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Carbon disulfide	<0.0044		0.0044	0.00092	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Chloroform	0.0012	J B	0.0018	0.00061	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
1,1-Dichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Ethylbenzene	<0.0018		0.0018	0.00084	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00056	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	04/05/18 16:43	04/09/18 21:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		75 - 131	04/05/18 16:43	04/09/18 21:11	1
Dibromofluoromethane	110		75 - 126	04/05/18 16:43	04/09/18 21:11	1
1,2-Dichloroethane-d4 (Surr)	115		70 - 134	04/05/18 16:43	04/09/18 21:11	1
Toluene-d8 (Surr)	109		75 - 124	04/05/18 16:43	04/09/18 21:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.089	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-1

Client Sample ID: 2274V-15-B04 (0-3)

Lab Sample ID: 500-143379-2

Date Collected: 04/05/18 09:55

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 79.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
2-Methylnaphthalene	<0.081		0.081	0.0074	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Phenanthrene	0.031	J	0.040	0.0056	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Fluoranthene	0.099		0.040	0.0074	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Pyrene	0.086		0.040	0.0080	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Benzo[a]anthracene	0.046		0.040	0.0054	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-1

Client Sample ID: 2274V-15-B04 (0-3)

Lab Sample ID: 500-143379-2

Date Collected: 04/05/18 09:55

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 79.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.059		0.040	0.011	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Benzo[b]fluoranthene	0.087		0.040	0.0086	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Benzo[k]fluoranthene	0.031	J	0.040	0.012	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Benzo[a]pyrene	0.053		0.040	0.0078	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Indeno[1,2,3-cd]pyrene	0.042		0.040	0.010	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Dibenz(a,h)anthracene	0.010	J	0.040	0.0077	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
Benzo[g,h,i]perylene	0.049		0.040	0.013	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	04/06/18 16:32	04/10/18 13:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	106		46 - 133	04/06/18 16:32	04/10/18 13:48	1
Phenol-d5	119		46 - 125	04/06/18 16:32	04/10/18 13:48	1
Nitrobenzene-d5	105		41 - 120	04/06/18 16:32	04/10/18 13:48	1
2-Fluorobiphenyl	95		44 - 121	04/06/18 16:32	04/10/18 13:48	1
2,4,6-Tribromophenol	88		25 - 139	04/06/18 16:32	04/10/18 13:48	1
Terphenyl-d14	106		35 - 160	04/06/18 16:32	04/10/18 13:48	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.24	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Arsenic	6.3		0.61	0.21	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Barium	88		0.61	0.069	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Beryllium	1.3		0.24	0.057	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Boron	7.5		2.7	0.25	mg/Kg	☼	04/10/18 07:48	04/11/18 23:11	1
Cadmium	0.39	B	0.12	0.022	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Calcium	34000	B	12	2.1	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Chromium	17		0.61	0.30	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Cobalt	20		0.30	0.079	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Copper	21		0.61	0.17	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Iron	18000	B	12	6.3	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Lead	28		0.30	0.14	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Magnesium	15000		6.1	3.0	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Manganese	550		0.61	0.088	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Nickel	29		0.61	0.18	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Potassium	2500		30	11	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Selenium	0.66		0.61	0.36	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Silver	0.31		0.30	0.078	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Sodium	160		61	9.0	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Thallium	<0.61		0.61	0.30	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Vanadium	22		0.30	0.072	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	1
Zinc	71		1.2	0.53	mg/Kg	☼	04/06/18 07:37	04/06/18 17:06	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		04/10/18 06:49	04/11/18 02:32	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/10/18 06:49	04/11/18 02:32	1
Boron	0.094	J B	0.50	0.050	mg/L		04/10/18 06:49	04/11/18 02:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-1

Client Sample ID: 2274V-15-B04 (0-3)

Lab Sample ID: 500-143379-2

Date Collected: 04/05/18 09:55

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 79.7

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	-	04/10/18 06:49	04/11/18 02:32	1
Chromium	<0.025		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:32	1
Cobalt	<0.025		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:32	1
Iron	<0.40		0.40	0.20	mg/L	-	04/10/18 06:49	04/11/18 02:32	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	04/10/18 06:49	04/11/18 02:32	1
Manganese	0.30		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:32	1
Nickel	0.012	J B	0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:32	1
Selenium	<0.050		0.050	0.020	mg/L	-	04/10/18 06:49	04/11/18 02:32	1
Silver	<0.025		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:32	1
Zinc	<0.50		0.50	0.020	mg/L	-	04/10/18 06:49	04/11/18 02:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.099		0.025	0.010	mg/L	-	04/10/18 06:50	04/11/18 02:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	04/10/18 06:49	04/10/18 14:45	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	04/10/18 06:49	04/10/18 14:45	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	04/09/18 11:45	04/10/18 09:13	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.035		0.018	0.0061	mg/Kg	☼	04/10/18 13:30	04/11/18 09:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.1		0.2	0.2	SU	-		04/17/18 14:53	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-1

Qualifiers

GC/MS VOA

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

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
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-1

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

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

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

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534.5200



500-143379 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 #: 500-143379

Chain of Custody Number: E915B-08

Page _____ of _____

Temperature °C of Cooler: 5.8

Client		Client Project #		Preservative		Parameter		Matrix		Comments		
EE		10093410015-03										
Project Name		Lab Project #		# of Containers		Matrix		Matrix		Comments		
176-001-15B		50013464										
Project Location/State		Lab PM		Date		Time		Matrix		Comments		
Cook County, FL		D. Wright										
Sample		Sample ID		Date		Time		Matrix		Comments		
S. Cooper												
1	MS/MSD	2274V-05-B03(0-3)	4-5-18	0940	2	5	X	X	X	X	X	
2	MS/MSD	2274V-15-B04(0-3)	4-5-18	0955	2	1	X	X	X	X	X	
<p><i>[Handwritten signature and date 4/5/18]</i></p>												

- Preservative Key
1. HCL, Cool to 4°
 2. H2SO4, Cool to 4°
 3. HNO3, Cool to 4°
 4. NaOH, Cool to 4°
 5. NaOH/Zn, Cool to 4°
 6. NaHSO4
 7. Cool to 4°
 8. None
 9. Other

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days ___ Other 10 Days
 Requested Due Date _____

Sample Disposal
 Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <i>[Signature]</i>	Company: <i>[Signature]</i>	Date: 4/5/18	Time: 1155	Received By: <i>[Signature]</i>	Company: TA	Date: 4/5/18	Time: 1155	Lab Courier: <i>[Signature]</i>
Relinquished By: <i>[Signature]</i>	Company: <i>[Signature]</i>	Date: 4/5/18	Time: 1442	Received By: <i>[Signature]</i>	Company: TA-CHI	Date: 4/5/18	Time: 1442	Shipped: _____
Relinquished By: _____	Company: _____	Date: _____	Time: _____	Received By: _____	Company: _____	Date: _____	Time: _____	Hand Delivered: _____

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

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-143379-1

Login Number: 143379

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





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

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

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

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

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

I. Source Location Information

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

Project Name: FAP 344 (Illinois Route 83) Office Phone Number, if available: _____

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

5545 W. 127th Street (ISGS #2274V-17)

City: Crestwood State: IL Zip Code: 60445

County: Cook Township: Worth

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

Latitude: 41.66075 Longitude: -87.75652
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Tyler Petersen

Contact: Tyler Petersen

Email, if available: Tyler.Petersen@illinois.gov

Email, if available: Tyler.Petersen@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 344 (Illinois Route 83)

Latitude: 41.66075 Longitude: -87.75652

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 2274V-17-B01 was sampled within the construction zone adjacent to ISGS #2274V-17 (Coach USA). Refer to PSI Report for ISGS #2274V-17 (Coach USA) including Table 4-3, and Figures 4-2 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 package J143305-6.

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

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

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

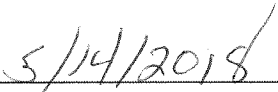
Company Name: Ecology and Environment, Inc.
 Street Address: 33 West Monroe Street
 City: Chicago State: IL Zip Code: 60603
 Phone: 312-578-9243

Neil J. Brown

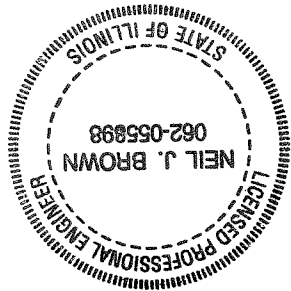
Printed Name:



Licensed Professional Engineer or
Licensed Professional Geologist Signature:



Date:







Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15B

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 or not applicable.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.
- PID = Photoionization detector.
- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

- # = pH is less than 6.25 or greater than 9.0 standard units.
- ** = Headspace reading above background (outside of instrument margin of error).
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Headspace reading exceeds background levels
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15B

CONTAMINANTS OF CONCERN

SITE	ISGS #2274V-17 (Coach USA)	Comparison Criteria					
		MACs			TACO		
BORING	2274V-17-B01	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2274V-17-B01 (0-1)						
MATRIX	Soil						
DEPTH (feet)	0-1						
pH	7.4						
PID > Bkgd.	--						
VOCs (None Detected)							
SVOCs (mg/kg)							
Acenaphthene	0.019 J	570	--	--	4,700	120,000	--
Anthracene	0.051	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.52	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.63 †	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.89	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.39	--	--	--	--	--	--
Benzo(k)fluoranthene	0.31	9	--	--	9	1,700	--
Chrysene	0.55	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.11 †	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.94	3,100	--	--	3,100	82,000	--
Fluorene	0.014 J	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.37	0.9	1.6	0.9	1.6	170	--
Phenanthrene	0.26	--	--	--	--	--	--
Pyrene	0.79	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)							
Arsenic	6.6	11.3	13	--	13	61	--
Barium	66	1,500	--	--	5,500	14,000	--
Beryllium	0.79	22	--	--	160	410	--
Boron	5.4	40	--	--	16,000	41,000	--
Cadmium	0.35	5.2	--	--	78	200	--
Calcium	5,800	--	--	--	--	--	--
Chromium	17	21	--	--	230	690	--
Cobalt	13	20	--	--	4,700	12,000	--
Copper	22	2,900	--	--	2,900	8,200	--
Iron	20,000 †m	15,000	15,900	--	--	--	--
Lead	27	107	--	--	400	700	--
Magnesium	4,700	325,000	--	--	--	730,000	--
Manganese	430	630	636	--	1,600	4,100	--
Mercury	0.054	0.89	--	--	10	0.1	--
Nickel	27	100	--	--	1,600	4,100	--
Potassium	1,700	--	--	--	--	--	--
Silver	0.29	4.4	--	--	390	1,000	--
Sodium	83	--	--	--	--	--	--
Thallium	0.47 J	2.6	--	--	6.3	160	--
Vanadium	20	550	--	--	550	1,400	--
Zinc	89	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)							
Barium	0.26 J	--	--	--	--	--	2
Boron	0.080 J	--	--	--	--	--	2
Iron	ND U	--	--	--	--	--	5
Manganese	0.28 L	--	--	--	--	--	0.15
Zinc	0.021 J	--	--	--	--	--	5
SPLP Metals (mg/L)							
Manganese	0.52 L	--	--	--	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 500-143305-6
Client Project/Site: IDOT - IL 83 - WO 015B

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

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
4/16/2018 5:09:46 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

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results through
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Visit us at:
www.testamericainc.com

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-6

Job ID: 500-143305-6

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-143305-6

Receipt

The samples were received on 4/4/2018 3:53 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.9° C.

GC/MS VOA

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

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid and/or one base surrogate outside acceptance limits: 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. 2274V-17-B01 (0-1) (500-143305-12)

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

Metals

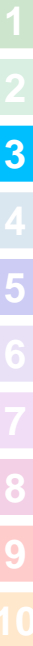
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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 83 - WO 015B

TestAmerica Job ID: 500-143305-6

Client Sample ID: 2274V-17-B01 (0-1)

Lab Sample ID: 500-143305-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.019	J	0.039	0.0071	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.014	J	0.039	0.0056	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.26		0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.051		0.039	0.0066	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.94		0.039	0.0074	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.79		0.039	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.52		0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.55		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.89		0.039	0.0086	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.31		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.63		0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.37		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.11		0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.39		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.6		0.57	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	66		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.79		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Boron	5.4		2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.35	B	0.11	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	5800	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	17		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	13		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Copper	22		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	20000	B	11	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	27		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	4700		5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	430		0.57	0.083	mg/Kg	1	☼	6010B	Total/NA
Nickel	27		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	1700		29	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.88	B	0.57	0.34	mg/Kg	1	☼	6010B	Total/NA
Silver	0.29		0.29	0.074	mg/Kg	1	☼	6010B	Total/NA
Sodium	83		57	8.5	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.47	J	0.57	0.29	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	89		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.26	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.080	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.28		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.014	J B	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.021	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.52		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.054		0.020	0.0066	mg/Kg	1	☼	7471B	Total/NA
pH	7.4		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 83 - WO 015B

TestAmerica Job ID: 500-143305-6

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-143305-12	2274V-17-B01 (0-1)	Solid	04/04/18 14:45	04/04/18 15:53

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-6

Client Sample ID: 2274V-17-B01 (0-1)

Lab Sample ID: 500-143305-12

Date Collected: 04/04/18 14:45

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 80.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0079	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Carbon disulfide	<0.0045		0.0045	0.00094	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Chlorobenzene	<0.0018		0.0018	0.00067	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
1,1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Ethylbenzene	<0.0018		0.0018	0.00087	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
1,1,1,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00078	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Vinyl acetate	<0.0045		0.0045	0.0016	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Vinyl chloride	<0.0018		0.0018	0.00080	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 18:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		75 - 131	04/04/18 17:00	04/05/18 18:16	1
Dibromofluoromethane	111		75 - 126	04/04/18 17:00	04/05/18 18:16	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	04/04/18 17:00	04/05/18 18:16	1
Toluene-d8 (Surr)	105		75 - 124	04/04/18 17:00	04/05/18 18:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-6

Client Sample ID: 2274V-17-B01 (0-1)

Lab Sample ID: 500-143305-12

Date Collected: 04/04/18 14:45

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 80.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.049	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
2,4,5-Trichlorophenol	<0.39		0.39	0.091	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
2-Methylnaphthalene	<0.080		0.080	0.0073	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
4-Chloro-3-methylphenol	<0.39		0.39	0.14	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
2-Nitrophenol	<0.39		0.39	0.094	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Acenaphthene	0.019	J	0.039	0.0071	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Fluorene	0.014	J	0.039	0.0056	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Phenanthrene	0.26		0.039	0.0055	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Anthracene	0.051		0.039	0.0066	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Fluoranthene	0.94		0.039	0.0074	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Pyrene	0.79		0.039	0.0079	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Benzo[a]anthracene	0.52		0.039	0.0053	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-6

Client Sample ID: 2274V-17-B01 (0-1)

Lab Sample ID: 500-143305-12

Date Collected: 04/04/18 14:45

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 80.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.55		0.039	0.011	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Benzo[b]fluoranthene	0.89		0.039	0.0086	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Benzo[k]fluoranthene	0.31		0.039	0.012	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Benzo[a]pyrene	0.63		0.039	0.0077	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Indeno[1,2,3-cd]pyrene	0.37		0.039	0.010	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Dibenz(a,h)anthracene	0.11		0.039	0.0077	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
Benzo[g,h,i]perylene	0.39		0.039	0.013	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	04/09/18 07:26	04/10/18 16:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	113		46 - 133	04/09/18 07:26	04/10/18 16:10	1
Phenol-d5	135	X	46 - 125	04/09/18 07:26	04/10/18 16:10	1
Nitrobenzene-d5	96		41 - 120	04/09/18 07:26	04/10/18 16:10	1
2-Fluorobiphenyl	107		44 - 121	04/09/18 07:26	04/10/18 16:10	1
2,4,6-Tribromophenol	99		25 - 139	04/09/18 07:26	04/10/18 16:10	1
Terphenyl-d14	120		35 - 160	04/09/18 07:26	04/10/18 16:10	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Arsenic	6.6		0.57	0.20	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Barium	66		0.57	0.065	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Beryllium	0.79		0.23	0.054	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Boron	5.4		2.9	0.27	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Cadmium	0.35	B	0.11	0.021	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Calcium	5800	B	11	1.9	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Chromium	17		0.57	0.28	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Cobalt	13		0.29	0.075	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Copper	22		0.57	0.16	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Iron	20000	B	11	6.0	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Lead	27		0.29	0.13	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Magnesium	4700		5.7	2.8	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Manganese	430		0.57	0.083	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Nickel	27		0.57	0.17	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Potassium	1700		29	10	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Selenium	0.88	B	0.57	0.34	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Silver	0.29		0.29	0.074	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Sodium	83		57	8.5	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Thallium	0.47	J	0.57	0.29	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Vanadium	20		0.29	0.068	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	1
Zinc	89		1.1	0.50	mg/Kg	☼	04/05/18 15:52	04/06/18 19:53	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		04/06/18 14:21	04/09/18 19:50	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/06/18 14:21	04/09/18 19:50	1
Boron	0.080	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 19:50	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-6

Client Sample ID: 2274V-17-B01 (0-1)

Lab Sample ID: 500-143305-12

Date Collected: 04/04/18 14:45

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 80.2

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		04/06/18 14:21	04/09/18 19:50	1
Chromium	<0.025		0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:50	1
Cobalt	<0.025		0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:50	1
Iron	<0.40		0.40	0.20	mg/L		04/06/18 14:21	04/09/18 19:50	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/06/18 14:21	04/09/18 19:50	1
Manganese	0.28		0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:50	1
Nickel	0.014	J B	0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:50	1
Selenium	<0.050		0.050	0.020	mg/L		04/06/18 14:21	04/09/18 19:50	1
Silver	<0.025		0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:50	1
Zinc	0.021	J	0.50	0.020	mg/L		04/06/18 14:21	04/09/18 19:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.52		0.025	0.010	mg/L		04/06/18 14:20	04/10/18 07:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/06/18 14:21	04/10/18 14:36	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/06/18 14:21	04/10/18 14:36	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		04/06/18 13:02	04/09/18 08:49	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.054		0.020	0.0066	mg/Kg	☼	04/05/18 14:15	04/06/18 09:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.4		0.2	0.2	SU			04/13/18 16:47	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-6

Qualifiers

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-6

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/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 #: 500-143305
 Chain of Custody Number: EA15B-06
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter												Preservative Key	
EE		1909341-0015-07																1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #																	
176-001-15B		50013464																	
Project Location/State		Lab PM																	
Cook County, IL		D. Wright																	
Sampler																			
S-Loupa																			
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOL	VOL	Total g/L	Metal	TC/PS/SP	TC Matrix	P4/6 solid	Comments					
			Date	Time															
12		2274V-17-B01(0-1)	4/4/18	1445	2	S	X	X	X	X	X								

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other
 Requested Due Date _____

Sample Disposal
 Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time	Lab Courier
<i>[Signature]</i>	EE	4/4/18	1511	<i>[Signature]</i>	TA	4/4/18	1515	<input checked="" type="checkbox"/>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time	Shipped
<i>[Signature]</i>	TA	4/4/18	1553	<i>[Signature]</i>	TA	04/04/18	1553	<input type="checkbox"/>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time	Hand Delivered
								<input type="checkbox"/>

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: 500-143305-6

Login Number: 143305

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn 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	4.9c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





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

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

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

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

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

I. Source Location Information

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

Project Name: FAP 344 (Illinois Route 83) Office Phone Number, if available: _____

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

12601 Cal-Sag Road (ISGS #2274V-45)

City: Alsip State: IL Zip Code: 60803

County: Cook Township: Worth

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

Latitude: 41.66281 Longitude: -87.75450

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Tyler Petersen

Contact: Tyler Petersen

Email, if available: Tyler.Petersen@illinois.gov

Email, if available: Tyler.Petersen@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: FAP 344 (Illinois Route 83)

Latitude: 41.66281 Longitude: -87.75450

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 2274V-45-B01 was sampled within the construction zone adjacent to ISGS #2274V-45 (Water Storage Facility). Refer to PSI Report for ISGS #2274V-45 (Water Storage Facility) including Table 4-3, and Figures 4-2 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 package J143305-4.

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

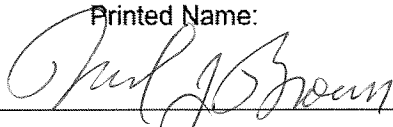
I, Neil J. Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental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

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

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

Neil J. Brown

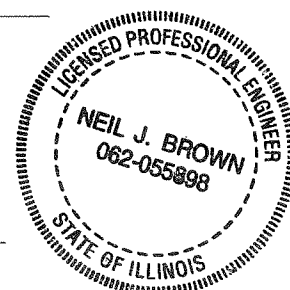
Printed Name:



5/14/2016

Date:

Licensed Professional Engineer or
 Licensed Professional Geologist Signature:







Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15B

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 or not applicable.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.
- PID = Photoionization detector.
- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

- # = pH is less than 6.25 or greater than 9.0 standard units.
- ** = Headspace reading above background (outside of instrument margin of error).
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Headspace reading exceeds background levels
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #2274V-45 (Water Storage Facility)	Comparison Criteria					
		MACs			TACO		
BORING	2274V-45-B01	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2274V-45-B01 (0-3)						
MATRIX	Soil						
DEPTH (feet)	0-3						
pH	8.1						
PID > Bkgd.	--						
VOCs (None Detected)							
SVOCs (mg/kg)							
Anthracene	0.011 J	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.050	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.061	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.12	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.054	--	--	--	--	--	--
Benzo(k)fluoranthene	0.040	9	--	--	9	1,700	--
Chrysene	0.085	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.011 J	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.12	3,100	--	--	3,100	82,000	--
Fluorene	0.0055 J	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.047	0.9	1.6	0.9	1.6	170	--
Phenanthrene	0.072	--	--	--	--	--	--
Pyrene	0.11	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)							
Arsenic	6.6	11.3	13	--	13	61	--
Barium	69	1,500	--	--	5,500	14,000	--
Beryllium	0.56	22	--	--	160	410	--
Boron	9.7	40	--	--	16,000	41,000	--
Cadmium	0.33	5.2	--	--	78	200	--
Calcium	85,000	--	--	--	--	--	--
Chromium	14	21	--	--	230	690	--
Cobalt	9.6	20	--	--	4,700	12,000	--
Copper	20	2,900	--	--	2,900	8,200	--
Iron	16,000 †m	15,000	15,900	--	--	--	--
Lead	27	107	--	--	400	700	--
Magnesium	27,000	325,000	--	--	--	730,000	--
Manganese	280	630	636	--	1,600	4,100	--
Mercury	0.034	0.89	--	--	10	0.1	--
Nickel	24	100	--	--	1,600	4,100	--
Potassium	1,500	--	--	--	--	--	--
Silver	0.19 J	4.4	--	--	390	1,000	--
Sodium	630	--	--	--	--	--	--
Thallium	0.37 J	2.6	--	--	6.3	160	--
Vanadium	16	550	--	--	550	1,400	--
Zinc	71	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)							
Barium	0.33 J	--	--	--	--	--	2
Boron	0.10 J	--	--	--	--	--	2
Cadmium	0.0029 J	--	--	--	--	--	0.005
Iron	ND U	--	--	--	--	--	5
Manganese	1.4 L	--	--	--	--	--	0.15
SPLP Metals (mg/L)							
Manganese	0.71 L	--	--	--	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 500-143305-4
Client Project/Site: IDOT - IL 83 - WO 015B

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

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
4/16/2018 5:08:17 PM
Jodie Bracken, Project Management Assistant II
jodie.bracken@testamericainc.com

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

LINKS

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www.testamericainc.com

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-4

Job ID: 500-143305-4

Laboratory: TestAmerica Chicago

Narrative

**Job Narrative
500-143305-4**

Receipt

The samples were received on 4/4/2018 3:53 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.9° C.

GC/MS VOA

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

GC/MS Semi VOA

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 83 - WO 015B

TestAmerica Job ID: 500-143305-4

Client Sample ID: 2274V-45-B01 (0-3)

Lab Sample ID: 500-143305-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	0.0055	J	0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.072		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.011	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.12		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.11		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.050		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.085		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.12		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.040		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.061		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.047		0.038	0.0099	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.011	J	0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.054		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.6		0.59	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	69		0.59	0.067	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.56		0.23	0.055	mg/Kg	1	☼	6010B	Total/NA
Boron	9.7		2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.33	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	85000	B	120	20	mg/Kg	10	☼	6010B	Total/NA
Chromium	14		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.6		0.29	0.077	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.59	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	16000	B	12	6.1	mg/Kg	1	☼	6010B	Total/NA
Lead	27		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	27000		5.9	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	280		0.59	0.085	mg/Kg	1	☼	6010B	Total/NA
Nickel	24		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		29	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.85	B	0.59	0.34	mg/Kg	1	☼	6010B	Total/NA
Silver	0.19	J	0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Sodium	630		59	8.7	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.37	J	0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.29	0.069	mg/Kg	1	☼	6010B	Total/NA
Zinc	71		1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Barium	0.33	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.10	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0029	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	1.4		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.018	J B	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.71		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.034		0.019	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	8.1		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 83 - WO 015B

TestAmerica Job ID: 500-143305-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-143305-10	2274V-45-B01 (0-3)	Solid	04/04/18 14:00	04/04/18 15:53

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-4

Client Sample ID: 2274V-45-B01 (0-3)

Lab Sample ID: 500-143305-10

Date Collected: 04/04/18 14:00

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 83.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0069	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
2-Butanone (MEK)	<0.0039		0.0039	0.0018	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Carbon disulfide	<0.0039		0.0039	0.00082	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Chlorobenzene	<0.0016		0.0016	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Chloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Chloroform	<0.0016		0.0016	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Dibromochloromethane	<0.0016		0.0016	0.00052	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Methylene Chloride	<0.0039		0.0039	0.0016	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Styrene	<0.0016		0.0016	0.00048	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Tetrachloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00070	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00068	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Vinyl acetate	<0.0039		0.0039	0.0014	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Vinyl chloride	<0.0016		0.0016	0.00070	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1
Xylenes, Total	<0.0032		0.0032	0.00050	mg/Kg	☼	04/04/18 17:00	04/05/18 17:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		75 - 131	04/04/18 17:00	04/05/18 17:25	1
Dibromofluoromethane	109		75 - 126	04/04/18 17:00	04/05/18 17:25	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 134	04/04/18 17:00	04/05/18 17:25	1
Toluene-d8 (Surr)	105		75 - 124	04/04/18 17:00	04/05/18 17:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-4

Client Sample ID: 2274V-45-B01 (0-3)

Lab Sample ID: 500-143305-10

Date Collected: 04/04/18 14:00

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 83.4

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	☼	04/09/18 07:26	04/10/18 15:13	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
2-Methylnaphthalene	<0.077		0.077	0.0070	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Fluorene	0.0055	J	0.038	0.0054	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Phenanthrene	0.072		0.038	0.0053	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Anthracene	0.011	J	0.038	0.0064	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Fluoranthene	0.12		0.038	0.0071	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Pyrene	0.11		0.038	0.0076	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Benzo[a]anthracene	0.050		0.038	0.0051	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-4

Client Sample ID: 2274V-45-B01 (0-3)

Lab Sample ID: 500-143305-10

Date Collected: 04/04/18 14:00

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 83.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.085		0.038	0.010	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Benzo[b]fluoranthene	0.12		0.038	0.0082	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Benzo[k]fluoranthene	0.040		0.038	0.011	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Benzo[a]pyrene	0.061		0.038	0.0074	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Indeno[1,2,3-cd]pyrene	0.047		0.038	0.0099	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Dibenz(a,h)anthracene	0.011	J	0.038	0.0074	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
Benzo[g,h,i]perylene	0.054		0.038	0.012	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	04/09/18 07:26	04/10/18 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	115		46 - 133	04/09/18 07:26	04/10/18 15:13	1
Phenol-d5	125		46 - 125	04/09/18 07:26	04/10/18 15:13	1
Nitrobenzene-d5	108		41 - 120	04/09/18 07:26	04/10/18 15:13	1
2-Fluorobiphenyl	110		44 - 121	04/09/18 07:26	04/10/18 15:13	1
2,4,6-Tribromophenol	99		25 - 139	04/09/18 07:26	04/10/18 15:13	1
Terphenyl-d14	124		35 - 160	04/09/18 07:26	04/10/18 15:13	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Arsenic	6.6		0.59	0.20	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Barium	69		0.59	0.067	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Beryllium	0.56		0.23	0.055	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Boron	9.7		2.9	0.27	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Cadmium	0.33	B	0.12	0.021	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Calcium	85000	B	120	20	mg/Kg	☼	04/05/18 15:52	04/09/18 21:51	10
Chromium	14		0.59	0.29	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Cobalt	9.6		0.29	0.077	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Copper	20		0.59	0.16	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Iron	16000	B	12	6.1	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Lead	27		0.29	0.14	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Magnesium	27000		5.9	2.9	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Manganese	280		0.59	0.085	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Nickel	24		0.59	0.17	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Potassium	1500		29	10	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Selenium	0.85	B	0.59	0.34	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Silver	0.19	J	0.29	0.075	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Sodium	630		59	8.7	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Thallium	0.37	J	0.59	0.29	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Vanadium	16		0.29	0.069	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1
Zinc	71		1.2	0.51	mg/Kg	☼	04/05/18 15:52	04/06/18 19:43	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.33	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 19:42	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/06/18 14:21	04/09/18 19:42	1
Boron	0.10	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 19:42	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-4

Client Sample ID: 2274V-45-B01 (0-3)

Lab Sample ID: 500-143305-10

Date Collected: 04/04/18 14:00

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 83.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0029	J	0.0050	0.0020	mg/L	-	04/06/18 14:21	04/09/18 19:42	1
Chromium	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:42	1
Cobalt	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:42	1
Iron	<0.40		0.40	0.20	mg/L	-	04/06/18 14:21	04/09/18 19:42	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	04/06/18 14:21	04/09/18 19:42	1
Manganese	1.4		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:42	1
Nickel	0.018	J B	0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:42	1
Selenium	<0.050		0.050	0.020	mg/L	-	04/06/18 14:21	04/09/18 19:42	1
Silver	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:42	1
Zinc	<0.50		0.50	0.020	mg/L	-	04/06/18 14:21	04/09/18 19:42	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	-	04/06/18 14:20	04/10/18 06:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	04/06/18 14:21	04/10/18 14:34	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	04/06/18 14:21	04/10/18 14:34	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	04/06/18 13:02	04/09/18 08:46	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.034		0.019	0.0063	mg/Kg	☼	04/05/18 14:15	04/06/18 09:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.1		0.2	0.2	SU	-		04/13/18 16:42	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-4

Qualifiers

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-4

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/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 #: 500-143305
Chain of Custody Number: EA15B04
Page _____ of _____
Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix					
EE		10093410015-03									
Project Name		Lab Project #		Preservative		Parameter		Matrix		Comments	
176-001-15B		50013464									
Project Location/State		Lab PM		Preservative		Parameter		Matrix		Comments	
Cook County, IL		D. Wright									
Sampler		Lab PM		Preservative		Parameter		Matrix		Comments	
S. Coop		D. Wright									
10		2274V-45B01(0-3)	4/4/18	1400	25		Vac	SVOC	Total TAC	TAC meth	TAC meth
							X	X	X	X	X

- Preservative Key
1. HCL, Cool to 4°
 2. H2SO4, Cool to 4°
 3. HNO3, Cool to 4°
 4. NaOH, Cool to 4°
 5. NaOH/Zn, Cool to 4°
 6. NaHSO4
 7. Cool to 4°
 8. None
 9. Other

Turnaround Time Required (Business Days)

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

Sample Disposal

Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>Y</u> Company <u>CO</u> Date <u>4/4/18</u> Time <u>1515</u>	Received By <u>P. Neal</u> Company <u>TA</u> Date <u>4/4/18</u> Time <u>1515</u>
Relinquished By <u>P. Neal</u> Company <u>TA</u> Date <u>4/4/18</u> Time <u>1553</u>	Received By <u>SK</u> Company <u>TA</u> Date <u>04/04/18</u> Time <u>1553</u>

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: 500-143305-4

Login Number: 143305

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn 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	4.9c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





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

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

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

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

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

I. Source Location Information

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

Project Name: FAP 344 (Illinois Route 83) Office Phone Number, if available: _____

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

5500 Cal-Sag Road (ISGS #2274V-46)

City: Alsip State: IL Zip Code: 60803

County: Cook Township: Worth

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

Latitude: 41.66234 Longitude: -87.75370

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Tyler Petersen

Contact: Tyler Petersen

Email, if available: Tyler.Petersen@illinois.gov

Email, if available: Tyler.Petersen@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: FAP 344 (Illinois Route 83)

Latitude: 41.66234 Longitude: -87.75370

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 2274V-46-B02 and -B03 were sampled within the construction zone adjacent to ISGS #2274V-46 (Clear View Family Restaurant). Refer to PSI Report for ISGS #2274V-46 (Clear View Family Restaurant) including Table 4-4, and Figures 4-2 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 package J143305-3.

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

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

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

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

Neil J. Brown _____

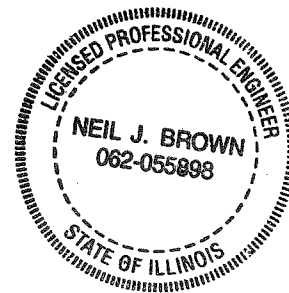
Printed Name:

Neil J. Brown

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

5/14/2014

Date:







Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15B

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 or not applicable.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.
- PID = Photoionization detector.
- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

- # = pH is less than 6.25 or greater than 9.0 standard units.
- ** = Headspace reading above background (outside of instrument margin of error).
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Headspace reading exceeds background levels
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

**PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15B
CONTAMINANTS OF CONCERN**

SITE	ISGS #2274V-46 (Clear View Family Restaurant)				Comparison Criteria					
	2274V-46-B02		2274V-46-B03		MACs			TACO		
BORING	2274V-46-B02		2274V-46-B03		Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2274V-46-B02 (0-5)	2274V-46-B02 (5-10)	2274V-46-B03 (0-5)	2274V-46-B03 (5-10)						
MATRIX	Soil	Soil	Soil	Soil						
DEPTH (feet)	0-5	5-10	0-5	5-10						
pH	8.4	8.4	7.9	7.7						
PID > Bkgd.	--		--							
VOCs (mg/kg)										
Acetone	ND U	ND U	0.023	0.019	25	--	--	70,000	100,000	--
Xylenes, Total	ND U	0.0023 J	ND U	ND U	5.6	--	--	320	5.6	--
SVOCs (mg/kg)										
2-Methylnaphthalene	0.0076 J	0.091	ND U	ND U	--	--	--	--	--	--
Acenaphthene	0.018 J	0.56	ND U	ND U	570	--	--	4,700	120,000	--
Acenaphthylene	0.020 J	ND U	0.041	ND U	--	--	--	--	--	--
Anthracene	0.060	0.79	0.032 J	ND U	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.26	1.5 †*	0.17	ND U	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.29 †	1.1 †	0.22 †	ND U	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.49	1.5 †	0.34	ND U	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.14	0.55	0.11	ND U	--	--	--	--	--	--
Benzo(k)fluoranthene	0.21	0.57	0.15	ND U	9	--	--	9	1,700	--
Carbazole	ND U	0.56	ND U	ND U	0.6	--	--	32	6,200	--
Chrysene	0.33	1.5	0.21	ND U	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.047	0.17 †	0.031 J	ND U	0.09	0.42	0.2	0.42	17	--
Dibenzofuran	ND U	0.22	ND U	ND U	--	--	--	--	--	--
Fluoranthene	0.71	4.7	0.41	ND U	3,100	--	--	3,100	82,000	--
Fluorene	0.019 J	0.40	0.0078 J	ND U	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.13	0.48	0.11	ND U	0.9	1.6	0.9	1.6	170	--
Naphthalene	0.016 J	0.41	0.0060 J	ND U	1.8	--	--	170	1.8	--
Phenanthrene	0.27	3.6	0.15	ND U	--	--	--	--	--	--
Pyrene	0.50	3.9	0.33	ND U	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)										
Arsenic	8.1	6.6	6.8	5.6	11.3	13	--	13	61	--
Barium	51	55	49	31	1,500	--	--	5,500	14,000	--
Beryllium	0.60	0.64	0.57	0.58	22	--	--	160	410	--
Boron	8.5	7.9	8.0	9.4	40	--	--	16,000	41,000	--
Cadmium	0.71	0.35	0.95	ND U	5.2	--	--	78	200	--
Calcium	76,000	30,000	69,000	35,000	--	--	--	--	--	--
Chromium	17	14	18	15	21	--	--	230	690	--
Cobalt	11	10	10	11	20	--	--	4,700	12,000	--
Copper	25	22	27	20	2,900	--	--	2,900	8,200	--
Iron	18,000 †m	17,000 †m	16,000 †m	17,000 †m	15,000	15,900	--	--	--	--
Lead	63	36	72	13	107	--	--	400	700	--
Magnesium	24,000	20,000	22,000	25,000	325,000	--	--	--	730,000	--
Manganese	350	370	340	380	630	636	--	1,600	4,100	--
Mercury	0.044	0.026	0.057	0.030	0.89	--	--	10	0.1	--
Nickel	27	26	26	29	100	--	--	1,600	4,100	--
Potassium	1,600	1,700	1,300	2,100	--	--	--	--	--	--
Silver	0.29	0.24 J	0.32	0.17 J	4.4	--	--	390	1,000	--
Sodium	500	520	740	210	--	--	--	--	--	--
Thallium	0.41 J	0.32 J	ND U	0.59 J	2.6	--	--	6.3	160	--
Vanadium	16	17	16	15	550	--	--	550	1,400	--
Zinc	94	74	91	120	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)										
Barium	0.41 J	0.40 J	0.19 J	0.24 J	--	--	--	--	--	2
Boron	0.12 J	0.11 J	0.11 J	0.070 J	--	--	--	--	--	2
Cadmium	0.0055 L	0.0028 J	0.0071 L	0.0030 J	--	--	--	--	--	0.005
Cobalt	ND U	ND U	0.011 J	0.010 J	--	--	--	--	--	1
Iron	ND U	ND U	ND U	ND U	--	--	--	--	--	5
Manganese	1.4 L	0.19 L	1.9 L	1.8 L	--	--	--	--	--	0.15
Zinc	0.060 J	ND U	0.066 J	0.064 J	--	--	--	--	--	5
SPLP Metals (mg/L)										
Cadmium	0.0028 J	NA	ND U	NA	--	--	--	--	--	0.005
Manganese	0.56 L	0.49 L	ND U	0.050	--	--	--	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 500-143305-3
Client Project/Site: IDOT - IL 83 - WO 015B

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

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
4/16/2018 5:07:50 PM
Jodie Bracken, Project Management Assistant II
jodie.bracken@testamericainc.com

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

LINKS

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www.testamericainc.com

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Job ID: 500-143305-3

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-143305-3

Receipt

The samples were received on 4/4/2018 3:53 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.9° C.

GC/MS VOA

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

GC/MS Semi VOA

Method(s) 8270D: The following sample contained one acid and/or one base surrogate outside acceptance limits: 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.2274V-46-B02 (5-10) (500-143305-7)

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

Metals

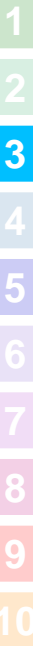
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B02 (0-5)

Lab Sample ID: 500-143305-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Naphthalene	0.016	J	0.038	0.0058	mg/Kg	1	☼	☼	8270D	Total/NA
2-Methylnaphthalene	0.0076	J	0.076	0.0070	mg/Kg	1	☼	☼	8270D	Total/NA
Acenaphthylene	0.020	J	0.038	0.0050	mg/Kg	1	☼	☼	8270D	Total/NA
Acenaphthene	0.018	J	0.038	0.0068	mg/Kg	1	☼	☼	8270D	Total/NA
Fluorene	0.019	J	0.038	0.0053	mg/Kg	1	☼	☼	8270D	Total/NA
Phenanthrene	0.27		0.038	0.0053	mg/Kg	1	☼	☼	8270D	Total/NA
Anthracene	0.060		0.038	0.0063	mg/Kg	1	☼	☼	8270D	Total/NA
Fluoranthene	0.71		0.038	0.0070	mg/Kg	1	☼	☼	8270D	Total/NA
Pyrene	0.50		0.038	0.0075	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[a]anthracene	0.26		0.038	0.0051	mg/Kg	1	☼	☼	8270D	Total/NA
Chrysene	0.33		0.038	0.010	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.49		0.038	0.0082	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.21		0.038	0.011	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[a]pyrene	0.29		0.038	0.0073	mg/Kg	1	☼	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.13		0.038	0.0098	mg/Kg	1	☼	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.047		0.038	0.0073	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.14		0.038	0.012	mg/Kg	1	☼	☼	8270D	Total/NA
Arsenic	8.1		0.54	0.19	mg/Kg	1	☼	☼	6010B	Total/NA
Barium	51		0.54	0.062	mg/Kg	1	☼	☼	6010B	Total/NA
Beryllium	0.60		0.22	0.051	mg/Kg	1	☼	☼	6010B	Total/NA
Boron	8.5		2.7	0.25	mg/Kg	1	☼	☼	6010B	Total/NA
Cadmium	0.71	B	0.11	0.020	mg/Kg	1	☼	☼	6010B	Total/NA
Calcium	76000	B	110	18	mg/Kg	10	☼	☼	6010B	Total/NA
Chromium	17		0.54	0.27	mg/Kg	1	☼	☼	6010B	Total/NA
Cobalt	11		0.27	0.071	mg/Kg	1	☼	☼	6010B	Total/NA
Copper	25		0.54	0.15	mg/Kg	1	☼	☼	6010B	Total/NA
Iron	18000	B	11	5.7	mg/Kg	1	☼	☼	6010B	Total/NA
Lead	63		0.27	0.13	mg/Kg	1	☼	☼	6010B	Total/NA
Magnesium	24000		5.4	2.7	mg/Kg	1	☼	☼	6010B	Total/NA
Manganese	350		0.54	0.079	mg/Kg	1	☼	☼	6010B	Total/NA
Nickel	27		0.54	0.16	mg/Kg	1	☼	☼	6010B	Total/NA
Potassium	1600		27	9.6	mg/Kg	1	☼	☼	6010B	Total/NA
Selenium	0.63	B	0.54	0.32	mg/Kg	1	☼	☼	6010B	Total/NA
Silver	0.29		0.27	0.070	mg/Kg	1	☼	☼	6010B	Total/NA
Sodium	500		54	8.1	mg/Kg	1	☼	☼	6010B	Total/NA
Thallium	0.41	J	0.54	0.27	mg/Kg	1	☼	☼	6010B	Total/NA
Vanadium	16		0.27	0.064	mg/Kg	1	☼	☼	6010B	Total/NA
Zinc	94		1.1	0.48	mg/Kg	1	☼	☼	6010B	Total/NA
Barium	0.41	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.12	J	0.50	0.050	mg/L	1			6010B	TCLP
Cadmium	0.0055		0.0050	0.0020	mg/L	1			6010B	TCLP
Manganese	1.4		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.027	B	0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.060	J	0.50	0.020	mg/L	1			6010B	TCLP
Cadmium	0.0028	J	0.0050	0.0020	mg/L	1			6010B	SPLP East
Manganese	0.56		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.044		0.019	0.0064	mg/Kg	1	☼	☼	7471B	Total/NA
pH	8.4		0.2	0.2	SU	1			9045D	Total/NA

Client Sample ID: 2274V-46-B02 (5-10)

Lab Sample ID: 500-143305-7

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B02 (5-10) (Continued)

Lab Sample ID: 500-143305-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Xylenes, Total	0.0023	J	0.0034	0.00055	mg/Kg	1	☼	☼	8260B	Total/NA
Naphthalene	0.41		0.041	0.0063	mg/Kg	1	☼	☼	8270D	Total/NA
2-Methylnaphthalene	0.091		0.082	0.0075	mg/Kg	1	☼	☼	8270D	Total/NA
Acenaphthene	0.56		0.041	0.0073	mg/Kg	1	☼	☼	8270D	Total/NA
Dibenzofuran	0.22		0.21	0.048	mg/Kg	1	☼	☼	8270D	Total/NA
Fluorene	0.40		0.041	0.0057	mg/Kg	1	☼	☼	8270D	Total/NA
Anthracene	0.79		0.041	0.0068	mg/Kg	1	☼	☼	8270D	Total/NA
Carbazole	0.56		0.21	0.10	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[a]anthracene	1.5		0.041	0.0055	mg/Kg	1	☼	☼	8270D	Total/NA
Chrysene	1.5		0.041	0.011	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[b]fluoranthene	1.5		0.041	0.0088	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.57		0.041	0.012	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[a]pyrene	1.1		0.041	0.0079	mg/Kg	1	☼	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.48		0.041	0.011	mg/Kg	1	☼	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.17		0.041	0.0079	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.55		0.041	0.013	mg/Kg	1	☼	☼	8270D	Total/NA
Phenanthrene - DL	3.6		0.20	0.029	mg/Kg	5	☼	☼	8270D	Total/NA
Fluoranthene - DL	4.7		0.20	0.038	mg/Kg	5	☼	☼	8270D	Total/NA
Pyrene - DL	3.9		0.20	0.041	mg/Kg	5	☼	☼	8270D	Total/NA
Arsenic	6.6		0.57	0.19	mg/Kg	1	☼	☼	6010B	Total/NA
Barium	55		0.57	0.065	mg/Kg	1	☼	☼	6010B	Total/NA
Beryllium	0.64		0.23	0.053	mg/Kg	1	☼	☼	6010B	Total/NA
Boron	7.9		2.8	0.27	mg/Kg	1	☼	☼	6010B	Total/NA
Cadmium	0.35	B	0.11	0.021	mg/Kg	1	☼	☼	6010B	Total/NA
Calcium	30000	B	11	1.9	mg/Kg	1	☼	☼	6010B	Total/NA
Chromium	14		0.57	0.28	mg/Kg	1	☼	☼	6010B	Total/NA
Cobalt	10		0.28	0.075	mg/Kg	1	☼	☼	6010B	Total/NA
Copper	22		0.57	0.16	mg/Kg	1	☼	☼	6010B	Total/NA
Iron	17000	B	11	5.9	mg/Kg	1	☼	☼	6010B	Total/NA
Lead	36		0.28	0.13	mg/Kg	1	☼	☼	6010B	Total/NA
Magnesium	20000		5.7	2.8	mg/Kg	1	☼	☼	6010B	Total/NA
Manganese	370		0.57	0.083	mg/Kg	1	☼	☼	6010B	Total/NA
Nickel	26		0.57	0.17	mg/Kg	1	☼	☼	6010B	Total/NA
Potassium	1700		28	10	mg/Kg	1	☼	☼	6010B	Total/NA
Selenium	0.47	J B	0.57	0.33	mg/Kg	1	☼	☼	6010B	Total/NA
Silver	0.24	J	0.28	0.073	mg/Kg	1	☼	☼	6010B	Total/NA
Sodium	520		57	8.4	mg/Kg	1	☼	☼	6010B	Total/NA
Thallium	0.32	J	0.57	0.28	mg/Kg	1	☼	☼	6010B	Total/NA
Vanadium	17		0.28	0.067	mg/Kg	1	☼	☼	6010B	Total/NA
Zinc	74		1.1	0.50	mg/Kg	1	☼	☼	6010B	Total/NA
Barium	0.40	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.11	J	0.50	0.050	mg/L	1			6010B	TCLP
Cadmium	0.0028	J	0.0050	0.0020	mg/L	1			6010B	TCLP
Manganese	0.19		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.019	J B	0.025	0.010	mg/L	1			6010B	TCLP
Manganese	0.49		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.026		0.019	0.0063	mg/Kg	1	☼	☼	7471B	Total/NA
pH	8.4		0.2	0.2	SU	1			9045D	Total/NA

Client Sample ID: 2274V-46-B03 (0-5)

Lab Sample ID: 500-143305-8

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B03 (0-5) (Continued)

Lab Sample ID: 500-143305-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.023		0.022	0.0096	mg/Kg	1	☼	8260B	Total/NA
Naphthalene	0.0060	J	0.038	0.0059	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.041		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0078	J	0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.15		0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.032	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.41		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.33		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.17		0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.21		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.34		0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.15		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.22		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.11		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.031	J	0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.11		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.8		0.54	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	49		0.54	0.061	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.57		0.22	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	8.0		2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.95	B	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	69000	B	110	18	mg/Kg	10	☼	6010B	Total/NA
Chromium	18		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	10		0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Copper	27		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	16000	B	11	5.6	mg/Kg	1	☼	6010B	Total/NA
Lead	72		0.27	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	22000		5.4	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	340		0.54	0.078	mg/Kg	1	☼	6010B	Total/NA
Nickel	26		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		27	9.5	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.78	B	0.54	0.32	mg/Kg	1	☼	6010B	Total/NA
Silver	0.32		0.27	0.069	mg/Kg	1	☼	6010B	Total/NA
Sodium	740		54	8.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	91		1.1	0.47	mg/Kg	1	☼	6010B	Total/NA
Barium	0.19	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0071		0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	1.9		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.026	B	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.066	J	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.057		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	7.9		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-46-B03 (5-10)

Lab Sample ID: 500-143305-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.019		0.018	0.0079	mg/Kg	1	☼	8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B03 (5-10) (Continued)

Lab Sample ID: 500-143305-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.6		0.60	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	31		0.60	0.068	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.58		0.24	0.056	mg/Kg	1	☼	6010B	Total/NA
Boron	9.4		3.0	0.28	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.21	B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Calcium	35000	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Chromium	15		0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.30	0.078	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	17000	B	12	6.2	mg/Kg	1	☼	6010B	Total/NA
Lead	13		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	25000		6.0	3.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	380		0.60	0.087	mg/Kg	1	☼	6010B	Total/NA
Nickel	29		0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	2100		30	11	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.36	J B	0.60	0.35	mg/Kg	1	☼	6010B	Total/NA
Silver	0.17	J	0.30	0.077	mg/Kg	1	☼	6010B	Total/NA
Sodium	210		60	8.9	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.59	J	0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.30	0.071	mg/Kg	1	☼	6010B	Total/NA
Zinc	120		1.2	0.53	mg/Kg	1	☼	6010B	Total/NA
Barium	0.24	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.070	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0030	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.010	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	1.8		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.027	B	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.064	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.050		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.030		0.020	0.0066	mg/Kg	1	☼	7471B	Total/NA
pH	7.7		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 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-143305-6	2274V-46-B02 (0-5)	Solid	04/04/18 12:50	04/04/18 15:53
500-143305-7	2274V-46-B02 (5-10)	Solid	04/04/18 13:05	04/04/18 15:53
500-143305-8	2274V-46-B03 (0-5)	Solid	04/04/18 13:20	04/04/18 15:53
500-143305-9	2274V-46-B03 (5-10)	Solid	04/04/18 13:40	04/04/18 15:53

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B02 (0-5)

Lab Sample ID: 500-143305-6

Date Collected: 04/04/18 12:50

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 84.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0068	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Carbon disulfide	<0.0039		0.0039	0.00081	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Carbon tetrachloride	<0.0016		0.0016	0.00045	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Chlorobenzene	<0.0016		0.0016	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Chloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
1,1-Dichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
1,2-Dichloropropane	<0.0016		0.0016	0.00040	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Styrene	<0.0016		0.0016	0.00047	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Toluene	<0.0016		0.0016	0.00039	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00069	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Vinyl acetate	<0.0039		0.0039	0.0014	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Vinyl chloride	<0.0016		0.0016	0.00069	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	04/04/18 17:00	04/05/18 15:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		75 - 131	04/04/18 17:00	04/05/18 15:43	1
Dibromofluoromethane	108		75 - 126	04/04/18 17:00	04/05/18 15:43	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	04/04/18 17:00	04/05/18 15:43	1
Toluene-d8 (Surr)	106		75 - 124	04/04/18 17:00	04/05/18 15:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B02 (0-5)

Lab Sample ID: 500-143305-6

Date Collected: 04/04/18 12:50

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 84.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Naphthalene	0.016	J	0.038	0.0058	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
2,4,5-Trichlorophenol	<0.38		0.38	0.086	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
2-Methylnaphthalene	0.0076	J	0.076	0.0070	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
2-Nitrophenol	<0.38		0.38	0.089	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
2,4-Dinitrophenol	<0.76		0.76	0.67	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Acenaphthylene	0.020	J	0.038	0.0050	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Acenaphthene	0.018	J	0.038	0.0068	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Fluorene	0.019	J	0.038	0.0053	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Phenanthrene	0.27		0.038	0.0053	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Anthracene	0.060		0.038	0.0063	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Fluoranthene	0.71		0.038	0.0070	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Pyrene	0.50		0.038	0.0075	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Benzo[a]anthracene	0.26		0.038	0.0051	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B02 (0-5)

Lab Sample ID: 500-143305-6

Date Collected: 04/04/18 12:50

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 84.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.33		0.038	0.010	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Benzo[b]fluoranthene	0.49		0.038	0.0082	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Benzo[k]fluoranthene	0.21		0.038	0.011	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Benzo[a]pyrene	0.29		0.038	0.0073	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Indeno[1,2,3-cd]pyrene	0.13		0.038	0.0098	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Dibenz(a,h)anthracene	0.047		0.038	0.0073	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
Benzo[g,h,i]perylene	0.14		0.038	0.012	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	04/09/18 07:26	04/10/18 14:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	123		46 - 133	04/09/18 07:26	04/10/18 14:08	1
Phenol-d5	110		46 - 125	04/09/18 07:26	04/10/18 14:08	1
Nitrobenzene-d5	93		41 - 120	04/09/18 07:26	04/10/18 14:08	1
2-Fluorobiphenyl	95		44 - 121	04/09/18 07:26	04/10/18 14:08	1
2,4,6-Tribromophenol	110		25 - 139	04/09/18 07:26	04/10/18 14:08	1
Terphenyl-d14	96		35 - 160	04/09/18 07:26	04/10/18 14:08	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Arsenic	8.1		0.54	0.19	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Barium	51		0.54	0.062	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Beryllium	0.60		0.22	0.051	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Boron	8.5		2.7	0.25	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Cadmium	0.71	B	0.11	0.020	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Calcium	76000	B	110	18	mg/Kg	☼	04/05/18 15:52	04/09/18 21:41	10
Chromium	17		0.54	0.27	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Cobalt	11		0.27	0.071	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Copper	25		0.54	0.15	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Iron	18000	B	11	5.7	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Lead	63		0.27	0.13	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Magnesium	24000		5.4	2.7	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Manganese	350		0.54	0.079	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Nickel	27		0.54	0.16	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Potassium	1600		27	9.6	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Selenium	0.63	B	0.54	0.32	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Silver	0.29		0.27	0.070	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Sodium	500		54	8.1	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Thallium	0.41	J	0.54	0.27	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Vanadium	16		0.27	0.064	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1
Zinc	94		1.1	0.48	mg/Kg	☼	04/05/18 15:52	04/06/18 19:23	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.41	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 19:13	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/06/18 14:21	04/09/18 19:13	1
Boron	0.12	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 19:13	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B02 (0-5)

Lab Sample ID: 500-143305-6

Date Collected: 04/04/18 12:50

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 84.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0055		0.0050	0.0020	mg/L		04/06/18 14:21	04/09/18 19:13	1
Chromium	<0.025		0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:13	1
Cobalt	<0.025		0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:13	1
Iron	<0.40		0.40	0.20	mg/L		04/06/18 14:21	04/09/18 19:13	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/06/18 14:21	04/09/18 19:13	1
Manganese	1.4		0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:13	1
Nickel	0.027	B	0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:13	1
Selenium	<0.050		0.050	0.020	mg/L		04/06/18 14:21	04/09/18 19:13	1
Silver	<0.025		0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:13	1
Zinc	0.060	J	0.50	0.020	mg/L		04/06/18 14:21	04/09/18 19:13	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0028	J	0.0050	0.0020	mg/L		04/06/18 14:20	04/10/18 06:25	1
Manganese	0.56		0.025	0.010	mg/L		04/06/18 14:20	04/10/18 06:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/06/18 14:21	04/10/18 14:29	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/06/18 14:21	04/10/18 14:29	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/06/18 13:02	04/09/18 08:39	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.044		0.019	0.0064	mg/Kg	☼	04/05/18 14:15	04/06/18 09:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.4		0.2	0.2	SU			04/13/18 16:33	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B02 (5-10)

Lab Sample ID: 500-143305-7

Date Collected: 04/04/18 13:05

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0074	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1
Xylenes, Total	0.0023	J	0.0034	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 16:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		75 - 131	04/04/18 17:00	04/05/18 16:08	1
Dibromofluoromethane	110		75 - 126	04/04/18 17:00	04/05/18 16:08	1
1,2-Dichloroethane-d4 (Surr)	115		70 - 134	04/04/18 17:00	04/05/18 16:08	1
Toluene-d8 (Surr)	105		75 - 124	04/04/18 17:00	04/05/18 16:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.091	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.061	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
1,4-Dichlorobenzene	<0.21		0.21	0.052	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B02 (5-10)

Lab Sample ID: 500-143305-7

Date Collected: 04/04/18 13:05

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.047	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Naphthalene	0.41		0.041	0.0063	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
2,4,5-Trichlorophenol	<0.41		0.41	0.093	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Hexachlorocyclopentadiene	<0.82		0.82	0.24	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
2-Methylnaphthalene	0.091		0.082	0.0075	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
2,6-Dinitrotoluene	<0.21		0.21	0.080	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Dimethyl phthalate	<0.21		0.21	0.053	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
2,4-Dinitrophenol	<0.82		0.82	0.72	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Acenaphthene	0.56		0.041	0.0073	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Dibenzofuran	0.22		0.21	0.048	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Fluorene	0.40		0.041	0.0057	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Hexachlorobenzene	<0.082		0.082	0.0095	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Diethyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Pentachlorophenol	<0.82		0.82	0.66	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Anthracene	0.79		0.041	0.0068	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Carbazole	0.56		0.21	0.10	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Di-n-butyl phthalate	<0.21		0.21	0.062	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Benzo[a]anthracene	1.5		0.041	0.0055	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Chrysene	1.5		0.041	0.011	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B02 (5-10)

Lab Sample ID: 500-143305-7

Date Collected: 04/04/18 13:05

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Benzo[b]fluoranthene	1.5		0.041	0.0088	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Benzo[k]fluoranthene	0.57		0.041	0.012	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Benzo[a]pyrene	1.1		0.041	0.0079	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Indeno[1,2,3-cd]pyrene	0.48		0.041	0.011	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Dibenz(a,h)anthracene	0.17		0.041	0.0079	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Benzo[g,h,i]perylene	0.55		0.041	0.013	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	04/09/18 07:26	04/10/18 12:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	124		46 - 133				04/09/18 07:26	04/10/18 12:43	1
Phenol-d5	118		46 - 125				04/09/18 07:26	04/10/18 12:43	1
Nitrobenzene-d5	83		41 - 120				04/09/18 07:26	04/10/18 12:43	1
2-Fluorobiphenyl	92		44 - 121				04/09/18 07:26	04/10/18 12:43	1
2,4,6-Tribromophenol	111		25 - 139				04/09/18 07:26	04/10/18 12:43	1
Terphenyl-d14	105		35 - 160				04/09/18 07:26	04/10/18 12:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	3.6		0.20	0.029	mg/Kg	☼	04/09/18 07:26	04/13/18 16:01	5
Fluoranthene	4.7		0.20	0.038	mg/Kg	☼	04/09/18 07:26	04/13/18 16:01	5
Pyrene	3.9		0.20	0.041	mg/Kg	☼	04/09/18 07:26	04/13/18 16:01	5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Arsenic	6.6		0.57	0.19	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Barium	55		0.57	0.065	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Beryllium	0.64		0.23	0.053	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Boron	7.9		2.8	0.27	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Cadmium	0.35	B	0.11	0.021	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Calcium	30000	B	11	1.9	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Chromium	14		0.57	0.28	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Cobalt	10		0.28	0.075	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Copper	22		0.57	0.16	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Iron	17000	B	11	5.9	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Lead	36		0.28	0.13	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Magnesium	20000		5.7	2.8	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Manganese	370		0.57	0.083	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Nickel	26		0.57	0.17	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Potassium	1700		28	10	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Selenium	0.47	J B	0.57	0.33	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Silver	0.24	J	0.28	0.073	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Sodium	520		57	8.4	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Thallium	0.32	J	0.57	0.28	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Vanadium	17		0.28	0.067	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1
Zinc	74		1.1	0.50	mg/Kg	☼	04/05/18 15:52	04/06/18 19:28	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B02 (5-10)

Lab Sample ID: 500-143305-7

Date Collected: 04/04/18 13:05

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 80.7

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.40	J	0.50	0.050	mg/L	-	04/06/18 14:21	04/09/18 19:30	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	04/06/18 14:21	04/09/18 19:30	1
Boron	0.11	J	0.50	0.050	mg/L	-	04/06/18 14:21	04/09/18 19:30	1
Cadmium	0.0028	J	0.0050	0.0020	mg/L	-	04/06/18 14:21	04/09/18 19:30	1
Chromium	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:30	1
Cobalt	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:30	1
Iron	<0.40		0.40	0.20	mg/L	-	04/06/18 14:21	04/09/18 19:30	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	04/06/18 14:21	04/09/18 19:30	1
Manganese	0.19		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:30	1
Nickel	0.019	J B	0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:30	1
Selenium	<0.050		0.050	0.020	mg/L	-	04/06/18 14:21	04/09/18 19:30	1
Silver	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:30	1
Zinc	<0.50		0.50	0.020	mg/L	-	04/06/18 14:21	04/09/18 19:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.49		0.025	0.010	mg/L	-	04/06/18 14:20	04/10/18 06:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	04/06/18 14:21	04/10/18 14:30	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	04/06/18 14:21	04/10/18 14:30	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	04/06/18 13:02	04/09/18 08:41	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.019	0.0063	mg/Kg	☼	04/05/18 14:15	04/06/18 09:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.4		0.2	0.2	SU	-		04/13/18 16:35	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B03 (0-5)

Lab Sample ID: 500-143305-8

Date Collected: 04/04/18 13:20

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.023		0.022	0.0096	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Benzene	<0.0022		0.0022	0.00056	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Bromodichloromethane	<0.0022		0.0022	0.00045	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Bromoform	<0.0022		0.0022	0.00064	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Bromomethane	<0.0055		0.0055	0.0021	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
2-Butanone (MEK)	<0.0055		0.0055	0.0024	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Carbon disulfide	<0.0055		0.0055	0.0011	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Carbon tetrachloride	<0.0022		0.0022	0.00064	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Chlorobenzene	<0.0022		0.0022	0.00081	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Chloroethane	<0.0055		0.0055	0.0016	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Chloroform	<0.0022		0.0022	0.00077	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Chloromethane	<0.0055		0.0055	0.0022	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
cis-1,2-Dichloroethene	<0.0022		0.0022	0.00062	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
cis-1,3-Dichloropropene	<0.0022		0.0022	0.00067	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Dibromochloromethane	<0.0022		0.0022	0.00072	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
1,1-Dichloroethane	<0.0022		0.0022	0.00076	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
1,2-Dichloroethane	<0.0055		0.0055	0.0017	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
1,1-Dichloroethene	<0.0022		0.0022	0.00076	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
1,2-Dichloropropane	<0.0022		0.0022	0.00057	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
1,3-Dichloropropane, Total	<0.0022		0.0022	0.00077	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Ethylbenzene	<0.0022		0.0022	0.0011	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
2-Hexanone	<0.0055		0.0055	0.0017	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Methylene Chloride	<0.0055		0.0055	0.0022	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
4-Methyl-2-pentanone (MIBK)	<0.0055		0.0055	0.0016	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Methyl tert-butyl ether	<0.0022		0.0022	0.00065	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Styrene	<0.0022		0.0022	0.00067	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
1,1,2,2-Tetrachloroethane	<0.0022		0.0022	0.00070	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Tetrachloroethene	<0.0022		0.0022	0.00075	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Toluene	<0.0022		0.0022	0.00056	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
trans-1,2-Dichloroethene	<0.0022		0.0022	0.00098	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
trans-1,3-Dichloropropene	<0.0022		0.0022	0.00077	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
1,1,1-Trichloroethane	<0.0022		0.0022	0.00074	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
1,1,2-Trichloroethane	<0.0022		0.0022	0.00095	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Trichloroethene	<0.0022		0.0022	0.00075	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Vinyl acetate	<0.0055		0.0055	0.0019	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Vinyl chloride	<0.0022		0.0022	0.00098	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1
Xylenes, Total	<0.0044		0.0044	0.00071	mg/Kg	☼	04/04/18 17:00	04/05/18 16:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		75 - 131	04/04/18 17:00	04/05/18 16:34	1
Dibromofluoromethane	108		75 - 126	04/04/18 17:00	04/05/18 16:34	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 134	04/04/18 17:00	04/05/18 16:34	1
Toluene-d8 (Surr)	109		75 - 124	04/04/18 17:00	04/05/18 16:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B03 (0-5)

Lab Sample ID: 500-143305-8

Date Collected: 04/04/18 13:20

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Naphthalene	0.0060	J	0.038	0.0059	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Acenaphthylene	0.041		0.038	0.0051	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Fluorene	0.0078	J	0.038	0.0054	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Phenanthrene	0.15		0.038	0.0054	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Anthracene	0.032	J	0.038	0.0064	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Fluoranthene	0.41		0.038	0.0071	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Pyrene	0.33		0.038	0.0076	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Benzo[a]anthracene	0.17		0.038	0.0052	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B03 (0-5)

Lab Sample ID: 500-143305-8

Date Collected: 04/04/18 13:20

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.21		0.038	0.010	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Benzo[b]fluoranthene	0.34		0.038	0.0083	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Benzo[k]fluoranthene	0.15		0.038	0.011	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Benzo[a]pyrene	0.22		0.038	0.0074	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Indeno[1,2,3-cd]pyrene	0.11		0.038	0.010	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Dibenz(a,h)anthracene	0.031	J	0.038	0.0074	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
Benzo[g,h,i]perylene	0.11		0.038	0.012	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	04/09/18 07:26	04/10/18 14:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	105		46 - 133	04/09/18 07:26	04/10/18 14:37	1
Phenol-d5	95		46 - 125	04/09/18 07:26	04/10/18 14:37	1
Nitrobenzene-d5	78		41 - 120	04/09/18 07:26	04/10/18 14:37	1
2-Fluorobiphenyl	83		44 - 121	04/09/18 07:26	04/10/18 14:37	1
2,4,6-Tribromophenol	107		25 - 139	04/09/18 07:26	04/10/18 14:37	1
Terphenyl-d14	91		35 - 160	04/09/18 07:26	04/10/18 14:37	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Arsenic	6.8		0.54	0.18	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Barium	49		0.54	0.061	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Beryllium	0.57		0.22	0.050	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Boron	8.0		2.7	0.25	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Cadmium	0.95	B	0.11	0.019	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Calcium	69000	B	110	18	mg/Kg	☼	04/05/18 15:52	04/09/18 21:46	10
Chromium	18		0.54	0.27	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Cobalt	10		0.27	0.071	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Copper	27		0.54	0.15	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Iron	16000	B	11	5.6	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Lead	72		0.27	0.12	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Magnesium	22000		5.4	2.7	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Manganese	340		0.54	0.078	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Nickel	26		0.54	0.16	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Potassium	1300		27	9.5	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Selenium	0.78	B	0.54	0.32	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Silver	0.32		0.27	0.069	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Sodium	740		54	8.0	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Vanadium	16		0.27	0.064	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1
Zinc	91		1.1	0.47	mg/Kg	☼	04/05/18 15:52	04/06/18 19:33	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.19	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 19:34	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/06/18 14:21	04/09/18 19:34	1
Boron	0.11	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 19:34	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B03 (0-5)

Lab Sample ID: 500-143305-8

Date Collected: 04/04/18 13:20

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0071		0.0050	0.0020	mg/L		04/06/18 14:21	04/09/18 19:34	1
Chromium	<0.025		0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:34	1
Cobalt	0.011	J	0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:34	1
Iron	<0.40		0.40	0.20	mg/L		04/06/18 14:21	04/09/18 19:34	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/06/18 14:21	04/09/18 19:34	1
Manganese	1.9		0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:34	1
Nickel	0.026	B	0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:34	1
Selenium	<0.050		0.050	0.020	mg/L		04/06/18 14:21	04/09/18 19:34	1
Silver	<0.025		0.025	0.010	mg/L		04/06/18 14:21	04/09/18 19:34	1
Zinc	0.066	J	0.50	0.020	mg/L		04/06/18 14:21	04/09/18 19:34	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		04/06/18 14:20	04/10/18 06:35	1
Manganese	<0.025		0.025	0.010	mg/L		04/06/18 14:20	04/10/18 06:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/06/18 14:21	04/10/18 14:30	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/06/18 14:21	04/10/18 14:30	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/06/18 13:02	04/09/18 08:43	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.057		0.018	0.0061	mg/Kg	☼	04/05/18 14:15	04/06/18 09:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.2	0.2	SU			04/13/18 16:38	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B03 (5-10)

Lab Sample ID: 500-143305-9

Date Collected: 04/04/18 13:40

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.019		0.018	0.0079	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Carbon disulfide	<0.0046		0.0046	0.00095	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Chlorobenzene	<0.0018		0.0018	0.00067	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Chloroethane	<0.0046		0.0046	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Chloromethane	<0.0046		0.0046	0.0018	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Ethylbenzene	<0.0018		0.0018	0.00087	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0013	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00078	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Vinyl acetate	<0.0046		0.0046	0.0016	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	04/04/18 17:00	04/05/18 16:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		75 - 131	04/04/18 17:00	04/05/18 16:59	1
Dibromofluoromethane	110		75 - 126	04/04/18 17:00	04/05/18 16:59	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 134	04/04/18 17:00	04/05/18 16:59	1
Toluene-d8 (Surr)	106		75 - 124	04/04/18 17:00	04/05/18 16:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B03 (5-10)

Lab Sample ID: 500-143305-9

Date Collected: 04/04/18 13:40

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 83.0

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	☼	04/09/18 07:26	04/10/18 12:14	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Phenanthrene	<0.038		0.038	0.0054	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Fluoranthene	<0.038		0.038	0.0071	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Pyrene	<0.038		0.038	0.0076	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Benzo[a]anthracene	<0.038		0.038	0.0052	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B03 (5-10)

Lab Sample ID: 500-143305-9

Date Collected: 04/04/18 13:40

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 83.0

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	☼	04/09/18 07:26	04/10/18 12:14	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Benzo[b]fluoranthene	<0.038		0.038	0.0083	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	04/09/18 07:26	04/10/18 12:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	104		46 - 133	04/09/18 07:26	04/10/18 12:14	1
Phenol-d5	96		46 - 125	04/09/18 07:26	04/10/18 12:14	1
Nitrobenzene-d5	81		41 - 120	04/09/18 07:26	04/10/18 12:14	1
2-Fluorobiphenyl	86		44 - 121	04/09/18 07:26	04/10/18 12:14	1
2,4,6-Tribromophenol	103		25 - 139	04/09/18 07:26	04/10/18 12:14	1
Terphenyl-d14	104		35 - 160	04/09/18 07:26	04/10/18 12:14	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Arsenic	5.6		0.60	0.20	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Barium	31		0.60	0.068	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Beryllium	0.58		0.24	0.056	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Boron	9.4		3.0	0.28	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Cadmium	0.21	B	0.12	0.022	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Calcium	35000	B	12	2.0	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Chromium	15		0.60	0.30	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Cobalt	11		0.30	0.078	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Copper	20		0.60	0.17	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Iron	17000	B	12	6.2	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Lead	13		0.30	0.14	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Magnesium	25000		6.0	3.0	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Manganese	380		0.60	0.087	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Nickel	29		0.60	0.17	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Potassium	2100		30	11	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Selenium	0.36	J B	0.60	0.35	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Silver	0.17	J	0.30	0.077	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Sodium	210		60	8.9	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Thallium	0.59	J	0.60	0.30	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Vanadium	15		0.30	0.071	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1
Zinc	120		1.2	0.53	mg/Kg	☼	04/05/18 15:52	04/06/18 19:38	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.24	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 19:38	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/06/18 14:21	04/09/18 19:38	1
Boron	0.070	J	0.50	0.050	mg/L		04/06/18 14:21	04/09/18 19:38	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Client Sample ID: 2274V-46-B03 (5-10)

Lab Sample ID: 500-143305-9

Date Collected: 04/04/18 13:40

Matrix: Solid

Date Received: 04/04/18 15:53

Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0030	J	0.0050	0.0020	mg/L	-	04/06/18 14:21	04/09/18 19:38	1
Chromium	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:38	1
Cobalt	0.010	J	0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:38	1
Iron	<0.40		0.40	0.20	mg/L	-	04/06/18 14:21	04/09/18 19:38	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	04/06/18 14:21	04/09/18 19:38	1
Manganese	1.8		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:38	1
Nickel	0.027	B	0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:38	1
Selenium	<0.050		0.050	0.020	mg/L	-	04/06/18 14:21	04/09/18 19:38	1
Silver	<0.025		0.025	0.010	mg/L	-	04/06/18 14:21	04/09/18 19:38	1
Zinc	0.064	J	0.50	0.020	mg/L	-	04/06/18 14:21	04/09/18 19:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.050		0.025	0.010	mg/L	-	04/06/18 14:20	04/10/18 06:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	04/06/18 14:21	04/10/18 14:33	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	04/06/18 14:21	04/10/18 14:33	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	04/06/18 13:02	04/09/18 08:44	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.030		0.020	0.0066	mg/Kg	☼	04/05/18 14:15	04/06/18 09:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.2	0.2	SU	-		04/13/18 16:40	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

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

Metals

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143305-3

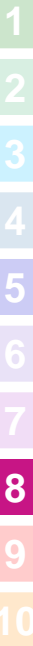
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/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 #: 800-143305
 Chain of Custody Number: E95B-03
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative							Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #		Parameter								Comments
Project Location/State		Lab PM										
Sampler												
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix						
6		2274V-46-B02 (05)	4-4-18	1250	2	S	VOC	SVEU	TOTAL TAC	TOTAL TAC	part % Solids	
7		2274V-46-B02 (510)	4-4-18	1305	2	S	X	X	X	X	X	
8		2274V-46-B03 (05)	4-4-18	1320	2	S	X	X	X	X	X	
9		2274V-46-B03 (510)	4-4-18	1340	2	S	X	X	X	X	X	
4-4-18												

Turnaround Time Required (Business Days)

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

Requested Due Date _____

Sample Disposal

Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>4/4/18</u> Time: <u>1515</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>4/4/18</u> Time: <u>1525</u>	Lab Courier: _____
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>4/4/18</u> Time: <u>1553</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>04/04/18</u> Time: <u>1553</u>	Shipped: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: _____

Matrix Key

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

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-143305-3

Login Number: 143305

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn 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	4.9c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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

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

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

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

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

I. Source Location Information

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

Project Name: FAP 344 (Illinois Route 83) Office Phone Number, if available: _____

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

12713 Cal-Sag Road (ISGS #2274V-47)

City: Crestwood State: IL Zip Code: 60445

County: Cook Township: Worth

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

Latitude: 41.66128 Longitude: -87.75196

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

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

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

Contact: Sam Mead

Contact: Sam Mead

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

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

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 344 (Illinois Route 83)

Latitude: 41.66128 Longitude: -87.75196

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 2274V-47-B01, -B02, and -B03 were sampled within the construction zone adjacent to ISGS #2274V-47 (Water Station). Refer to PSI Report for ISGS #2274V-47 (Water Station) including Table 4-3, and Figures 4-2 and 4-6.

- 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 J129768-9 and J143379-2.

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

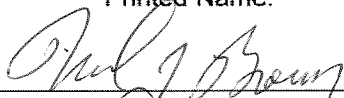
I, Neil J. Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental 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:

Date:







Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15B

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 or not applicable.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.
- PID = Photoionization detector.
- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

- # = pH is less than 6.25 or greater than 9.0 standard units.
- ** = Headspace reading above background (outside of instrument margin of error).
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Headspace reading exceeds background levels
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15A

CONTAMINANTS OF CONCERN

SITE	ISGS #2274V-47 (Water Station)		Comparison Criteria					
	2274V-47-B01	2274V-47-B02	MACs			TACO		
BORING								
SAMPLE	2274V-47-B01 (0-7)	2274V-47-B02 (0-1)						
MATRIX	Soil	Soil						
DEPTH (feet)	0-7	0-1						
pH	8.5	7.8	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
VOCs (None Detected)								
SVOCs (mg/kg)								
2-Methylnaphthalene	0.0088 J	0.0080 J	--	--	--	--	--	--
Acenaphthene	ND U	0.0089 J	570	--	--	4,700	120,000	--
Acenaphthylene	ND U	0.0092 J	--	--	--	--	--	--
Anthracene	ND U	0.027 J	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.039	0.14	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.048	0.15 †	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.082	0.23	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.026 J	0.081	--	--	--	--	--	--
Benzo(k)fluoranthene	0.025 J	0.10	9	--	--	9	1,700	--
Chrysene	0.049	0.16	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.013 J	0.027 J	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.068	0.24	3,100	--	--	3,100	82,000	--
Fluorene	ND U	0.0087 J	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.028 J	0.076	0.9	1.6	0.9	1.6	170	--
Naphthalene	ND U	0.013 J	1.8	--	--	170	1.8	--
Phenanthrene	0.032 J	0.11	--	--	--	--	--	--
Pyrene	0.061	0.21	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)								
Arsenic	6.3	5.8	11.3	13	--	13	61	--
Barium	60	130	1,500	--	--	5,500	14,000	--
Beryllium	0.49	0.50	22	--	--	160	410	--
Boron	6.3	4.0	40	--	--	16,000	41,000	--
Cadmium	0.27	0.61	5.2	--	--	78	200	--
Calcium	23,000	16,000	--	--	--	--	--	--
Chromium	11	16	21	--	--	230	690	--
Cobalt	9.1	9.4	20	--	--	4,700	12,000	--
Copper	20	21	2,900	--	--	2,900	8,200	--
Iron	15,000	15,000	15,000	15,900	--	--	--	--
Lead	71	53	107	--	--	400	700	--
Magnesium	15,000	8,200	325,000	--	--	--	730,000	--
Manganese	310	300	630	636	--	1,600	4,100	--
Nickel	22	21	100	--	--	1,600	4,100	--
Potassium	1,300	1,600	--	--	--	--	--	--
Selenium	0.61	0.57	1.3	--	--	390	1,000	--
Sodium	400	130	--	--	--	--	--	--
Vanadium	15	17	550	--	--	550	1,400	--
Zinc	73	87	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)								
Barium	0.33 J	0.80	--	--	--	--	--	2
Cadmium	0.0020 J	0.0036 J	--	--	--	--	--	0.005
Manganese	1.0 L	0.57 L	--	--	--	--	--	0.15
Zinc	0.025 J	0.040 J	--	--	--	--	--	5
SPLP Metals (mg/L)								
Manganese	0.39 L	0.26 L	--	--	--	--	--	0.15

**PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15B
CONTAMINANTS OF CONCERN**

SITE	ISGS #2274V-47 (Water Station)		Comparison Criteria					
	2274V-47-B03		MACs			TACO		
BORING	2274V-47-B03		Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2274V-47-B03 (0-6)	2274V-47-B03 (6-11)						
MATRIX	Soil	Soil						
DEPTH (feet)	0-6	6-11						
pH	8.3	8.0						
PID > Bkgd.	--							
VOCs (mg/kg)								
2-Butanone (MEK)	0.0079	ND U	--	--	--	--	--	--
Acetone	0.21 J	0.018	25	--	--	70,000	100,000	--
SVOCs (mg/kg)								
Anthracene	0.0090 J	ND U	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.062	ND U	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.075	ND U	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.11	0.0098 J	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.058	ND U	--	--	--	--	--	--
Benzo(k)fluoranthene	0.040	ND U	9	--	--	9	1,700	--
Chrysene	0.082	ND U	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.015 J	ND U	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.12	ND U	3,100	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.050	ND U	0.9	1.6	0.9	1.6	170	--
Phenanthrene	0.052	ND U	--	--	--	--	--	--
Pyrene	0.11	ND U	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)								
Arsenic	6.5	11	11.3	13	--	13	61	--
Barium	48	32	1,500	--	--	5,500	14,000	--
Beryllium	0.58	0.56	22	--	--	160	410	--
Boron	8.7	9.6	40	--	--	16,000	41,000	--
Cadmium	0.28	ND U	5.2	--	--	78	200	--
Calcium	12,000	140,000	--	--	--	--	--	--
Chromium	13	10	21	--	--	230	690	--
Cobalt	8.9	10	20	--	--	4,700	12,000	--
Copper	17	14	2,900	--	--	2,900	8,200	--
Iron	15,000	19,000 †m	15,000	15,900	--	--	--	--
Lead	24	15	107	--	--	400	700	--
Magnesium	8,500	47,000	325,000	--	--	--	730,000	--
Manganese	310	300	630	636	--	1,600	4,100	--
Mercury	0.023	0.020	0.89	--	--	10	0.1	--
Nickel	20	21	100	--	--	1,600	4,100	--
Potassium	2,200	2,100	--	--	--	--	--	--
Selenium	0.76	0.71	1.3	--	--	390	1,000	--
Silver	0.20 J	0.19 J	4.4	--	--	390	1,000	--
Sodium	95	230	--	--	--	--	--	--
Vanadium	19	15	550	--	--	550	1,400	--
Zinc	60	37	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)								
Barium	0.36 J	0.28 J	--	--	--	--	--	2
Cadmium	0.0033 J	0.0029 J	--	--	--	--	--	0.005
Iron	ND U	ND U	--	--	--	--	--	5
Manganese	0.60 L	0.72 L	--	--	--	--	--	0.15
Zinc	0.024 J	ND U	--	--	--	--	--	5
SPLP Metals (mg/L)								
Manganese	0.20 L	0.14	--	--	--	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 500-129768-9
Client Project/Site: IDOT - IL 83 - WO 015

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/30/2017 11:55:20 AM

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

LINKS

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www.testamericainc.com

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-9

Job ID: 500-129768-9

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-129768-9

Receipt

The samples were received on 6/16/2017 4:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 4.5° 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

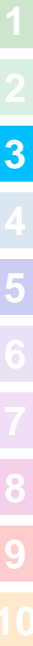
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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 83 - WO 015

TestAmerica Job ID: 500-129768-9

Client Sample ID: 2274V-47-B02 (0-1)

Lab Sample ID: 500-129768-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.013	J	0.037	0.0058	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.0080	J	0.076	0.0069	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.0092	J	0.037	0.0049	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.0089	J	0.037	0.0067	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0087	J	0.037	0.0053	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.11		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.027	J	0.037	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.24		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.21		0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.14		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.16		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.23		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.10		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.15		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.076		0.037	0.0097	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.027	J	0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.081		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.8		0.57	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	130		0.52	0.060	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.50		0.21	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	4.0		2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.61	B	0.10	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	16000	B	10	1.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	16		0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.4		0.26	0.069	mg/Kg	1	☼	6010B	Total/NA
Copper	21		0.52	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		10	5.4	mg/Kg	1	☼	6010B	Total/NA
Lead	53		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	8200	B	5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	300		0.57	0.083	mg/Kg	1	☼	6010B	Total/NA
Nickel	21		0.52	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1600		26	9.3	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.57		0.57	0.34	mg/Kg	1	☼	6010B	Total/NA
Sodium	130		52	7.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.26	0.062	mg/Kg	1	☼	6010B	Total/NA
Zinc	87		1.0	0.46	mg/Kg	1	☼	6010B	Total/NA
Barium	0.80		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0036	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.57		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.040	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.26		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.068	B	0.019	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	7.8		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-47-B01 (0-7)

Lab Sample ID: 500-129768-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.0088	J	0.076	0.0070	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.032	J	0.038	0.0053	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 83 - WO 015

TestAmerica Job ID: 500-129768-9

Client Sample ID: 2274V-47-B01 (0-7) (Continued)

Lab Sample ID: 500-129768-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.068		0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.061		0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.039		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.049		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.082		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.025	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.048		0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.028	J	0.038	0.0098	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.013	J	0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.026	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.3		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	60		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.49		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	6.3		2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.27	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	23000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	11		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.1		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	71		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	15000	B	5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	310		0.55	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	22		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.61		0.55	0.32	mg/Kg	1	☼	6010B	Total/NA
Sodium	400		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	73		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.33	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.14	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0020	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	1.0		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.025	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.39		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.049	B	0.018	0.0059	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 83 - WO 015

TestAmerica Job ID: 500-129768-9

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-129768-14	2274V-47-B02 (0-1)	Solid	06/16/17 14:30	06/16/17 16:00
500-129768-15	2274V-47-B01 (0-7)	Solid	06/16/17 14:35	06/16/17 16:00

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-9

Client Sample ID: 2274V-47-B02 (0-1)

Lab Sample ID: 500-129768-14

Date Collected: 06/16/17 14:30

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 87.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0080	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Carbon disulfide	<0.0046		0.0046	0.00095	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Chlorobenzene	<0.0018		0.0018	0.00068	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Chloroform	<0.0018		0.0018	0.00064	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Chloromethane	<0.0046		0.0046	0.0018	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Ethylbenzene	<0.0018		0.0018	0.00088	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00079	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Vinyl acetate	<0.0046		0.0046	0.0016	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	06/16/17 17:21	06/22/17 20:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		75 - 131	06/16/17 17:21	06/22/17 20:00	1
Dibromofluoromethane	92		75 - 126	06/16/17 17:21	06/22/17 20:00	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 134	06/16/17 17:21	06/22/17 20:00	1
Toluene-d8 (Surr)	95		75 - 124	06/16/17 17:21	06/22/17 20:00	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	☼	06/25/17 19:26	06/26/17 14:20	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-9

Client Sample ID: 2274V-47-B02 (0-1)

Lab Sample ID: 500-129768-14

Date Collected: 06/16/17 14:30

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 87.4

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	☼	06/25/17 19:26	06/26/17 14:20	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Naphthalene	0.013	J	0.037	0.0058	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
2-Methylnaphthalene	0.0080	J	0.076	0.0069	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Acenaphthylene	0.0092	J	0.037	0.0049	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Acenaphthene	0.0089	J	0.037	0.0067	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Fluorene	0.0087	J	0.037	0.0053	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Phenanthrene	0.11		0.037	0.0052	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Anthracene	0.027	J	0.037	0.0063	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Fluoranthene	0.24		0.037	0.0069	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Pyrene	0.21		0.037	0.0074	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Benzo[a]anthracene	0.14		0.037	0.0050	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-9

Client Sample ID: 2274V-47-B02 (0-1)

Lab Sample ID: 500-129768-14

Date Collected: 06/16/17 14:30

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 87.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.16		0.037	0.010	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Benzo[b]fluoranthene	0.23		0.037	0.0081	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Benzo[k]fluoranthene	0.10		0.037	0.011	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Benzo[a]pyrene	0.15		0.037	0.0072	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Indeno[1,2,3-cd]pyrene	0.076		0.037	0.0097	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Dibenz(a,h)anthracene	0.027	J	0.037	0.0072	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
Benzo[g,h,i]perylene	0.081		0.037	0.012	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	06/25/17 19:26	06/26/17 14:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	88		46 - 133	06/25/17 19:26	06/26/17 14:20	1
Phenol-d5	83		46 - 125	06/25/17 19:26	06/26/17 14:20	1
Nitrobenzene-d5	71		41 - 120	06/25/17 19:26	06/26/17 14:20	1
2-Fluorobiphenyl	75		44 - 121	06/25/17 19:26	06/26/17 14:20	1
2,4,6-Tribromophenol	82		25 - 139	06/25/17 19:26	06/26/17 14:20	1
Terphenyl-d14	91		35 - 160	06/25/17 19:26	06/26/17 14:20	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.20	mg/Kg	☼	06/26/17 10:16	06/26/17 21:36	1
Arsenic	5.8		0.57	0.20	mg/Kg	☼	06/27/17 09:39	06/27/17 19:11	1
Barium	130		0.52	0.060	mg/Kg	☼	06/26/17 10:16	06/26/17 21:36	1
Beryllium	0.50		0.21	0.049	mg/Kg	☼	06/26/17 10:16	06/26/17 21:36	1
Boron	4.0		2.9	0.27	mg/Kg	☼	06/27/17 09:39	06/27/17 19:11	1
Cadmium	0.61	B	0.10	0.019	mg/Kg	☼	06/26/17 10:16	06/26/17 21:36	1
Calcium	16000	B	10	1.8	mg/Kg	☼	06/26/17 10:16	06/26/17 21:36	1
Chromium	16		0.52	0.26	mg/Kg	☼	06/26/17 10:16	06/26/17 21:36	1
Cobalt	9.4		0.26	0.069	mg/Kg	☼	06/26/17 10:16	06/26/17 21:36	1
Copper	21		0.52	0.15	mg/Kg	☼	06/26/17 10:16	06/26/17 21:36	1
Iron	15000		10	5.4	mg/Kg	☼	06/26/17 10:16	06/26/17 21:36	1
Lead	53		0.29	0.13	mg/Kg	☼	06/27/17 09:39	06/27/17 19:11	1
Magnesium	8200	B	5.7	2.8	mg/Kg	☼	06/27/17 09:39	06/27/17 19:11	1
Manganese	300		0.57	0.083	mg/Kg	☼	06/27/17 09:39	06/27/17 19:11	1
Nickel	21		0.52	0.15	mg/Kg	☼	06/26/17 10:16	06/26/17 21:36	1
Potassium	1600		26	9.3	mg/Kg	☼	06/26/17 10:16	06/26/17 21:36	1
Selenium	0.57		0.57	0.34	mg/Kg	☼	06/27/17 09:39	06/27/17 19:11	1
Silver	<0.26		0.26	0.068	mg/Kg	☼	06/26/17 10:16	06/26/17 21:36	1
Sodium	130		52	7.8	mg/Kg	☼	06/26/17 10:16	06/26/17 21:36	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	06/27/17 09:39	06/27/17 19:11	1
Vanadium	17		0.26	0.062	mg/Kg	☼	06/26/17 10:16	06/26/17 21:36	1
Zinc	87		1.0	0.46	mg/Kg	☼	06/26/17 10:16	06/26/17 21:36	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.80		0.50	0.050	mg/L		06/23/17 07:08	06/24/17 01:59	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/23/17 07:08	06/24/17 01:59	1
Boron	0.11	J B	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 01:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-9

Client Sample ID: 2274V-47-B02 (0-1)

Lab Sample ID: 500-129768-14

Date Collected: 06/16/17 14:30

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 87.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0036	J	0.0050	0.0020	mg/L	-	06/23/17 07:08	06/24/17 01:59	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 01:59	1
Cobalt	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 01:59	1
Iron	<0.40		0.40	0.20	mg/L	-	06/23/17 07:08	06/24/17 01:59	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/23/17 07:08	06/24/17 01:59	1
Manganese	0.57		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 01:59	1
Nickel	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 01:59	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/23/17 07:08	06/24/17 01:59	1
Silver	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 01:59	1
Zinc	0.040	J	0.50	0.020	mg/L	-	06/23/17 07:08	06/24/17 01:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.26		0.025	0.010	mg/L	-	06/23/17 07:12	06/25/17 01:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	06/23/17 07:08	06/23/17 18:57	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/23/17 07:08	06/23/17 18:57	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	06/22/17 10:29	06/23/17 10:32	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.068	B	0.019	0.0063	mg/Kg	☼	06/21/17 08:00	06/21/17 13:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.2	0.2	SU	-		06/29/17 16:26	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-9

Client Sample ID: 2274V-47-B01 (0-7)

Lab Sample ID: 500-129768-15

Date Collected: 06/16/17 14:35

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.021		0.021	0.0092	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Benzene	<0.0021		0.0021	0.00054	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Bromodichloromethane	<0.0021		0.0021	0.00043	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Bromoform	<0.0021		0.0021	0.00062	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Bromomethane	<0.0053		0.0053	0.0020	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
2-Butanone (MEK)	<0.0053		0.0053	0.0023	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Carbon disulfide	<0.0053		0.0053	0.0011	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Carbon tetrachloride	<0.0021		0.0021	0.00061	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Chlorobenzene	<0.0021		0.0021	0.00078	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Chloroethane	<0.0053		0.0053	0.0016	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Chloroform	<0.0021		0.0021	0.00073	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Chloromethane	<0.0053		0.0053	0.0021	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
cis-1,2-Dichloroethene	<0.0021		0.0021	0.00059	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
cis-1,3-Dichloropropene	<0.0021		0.0021	0.00064	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Dibromochloromethane	<0.0021		0.0021	0.00069	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
1,1-Dichloroethane	<0.0021		0.0021	0.00072	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
1,2-Dichloroethane	<0.0053		0.0053	0.0017	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
1,1-Dichloroethene	<0.0021		0.0021	0.00073	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
1,2-Dichloropropane	<0.0021		0.0021	0.00055	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
1,3-Dichloropropane, Total	<0.0021		0.0021	0.00074	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Ethylbenzene	<0.0021		0.0021	0.0010	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
2-Hexanone	<0.0053		0.0053	0.0017	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Methylene Chloride	<0.0053		0.0053	0.0021	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
4-Methyl-2-pentanone (MIBK)	<0.0053		0.0053	0.0016	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Methyl tert-butyl ether	<0.0021		0.0021	0.00062	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Styrene	<0.0021		0.0021	0.00064	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
1,1,2,2-Tetrachloroethane	<0.0021		0.0021	0.00068	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Tetrachloroethene	<0.0021		0.0021	0.00072	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Toluene	<0.0021		0.0021	0.00053	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
trans-1,2-Dichloroethene	<0.0021		0.0021	0.00094	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
trans-1,3-Dichloropropene	<0.0021		0.0021	0.00074	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
1,1,1-Trichloroethane	<0.0021		0.0021	0.00071	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
1,1,2-Trichloroethane	<0.0021		0.0021	0.00091	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Trichloroethene	<0.0021		0.0021	0.00072	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Vinyl acetate	<0.0053		0.0053	0.0018	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Vinyl chloride	<0.0021		0.0021	0.00094	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1
Xylenes, Total	<0.0042		0.0042	0.00068	mg/Kg	☼	06/16/17 17:21	06/22/17 18:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		75 - 131	06/16/17 17:21	06/22/17 18:16	1
Dibromofluoromethane	90		75 - 126	06/16/17 17:21	06/22/17 18:16	1
1,2-Dichloroethane-d4 (Surr)	89		70 - 134	06/16/17 17:21	06/22/17 18:16	1
Toluene-d8 (Surr)	88		75 - 124	06/16/17 17:21	06/22/17 18:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-9

Client Sample ID: 2274V-47-B01 (0-7)

Lab Sample ID: 500-129768-15

Date Collected: 06/16/17 14:35

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
2-Methylnaphthalene	0.0088	J	0.076	0.0070	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
2,4-Dinitrophenol	<0.76		0.76	0.67	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Phenanthrene	0.032	J	0.038	0.0053	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Anthracene	<0.038		0.038	0.0063	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Fluoranthene	0.068		0.038	0.0070	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Pyrene	0.061		0.038	0.0075	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Benzo[a]anthracene	0.039		0.038	0.0051	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-9

Client Sample ID: 2274V-47-B01 (0-7)

Lab Sample ID: 500-129768-15

Date Collected: 06/16/17 14:35

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.049		0.038	0.010	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Benzo[b]fluoranthene	0.082		0.038	0.0082	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Benzo[k]fluoranthene	0.025 J		0.038	0.011	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Benzo[a]pyrene	0.048		0.038	0.0073	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Indeno[1,2,3-cd]pyrene	0.028 J		0.038	0.0098	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Dibenz(a,h)anthracene	0.013 J		0.038	0.0073	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
Benzo[g,h,i]perylene	0.026 J		0.038	0.012	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/25/17 19:26	06/26/17 14:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	79		46 - 133	06/25/17 19:26	06/26/17 14:45	1
Phenol-d5	77		46 - 125	06/25/17 19:26	06/26/17 14:45	1
Nitrobenzene-d5	62		41 - 120	06/25/17 19:26	06/26/17 14:45	1
2-Fluorobiphenyl	67		44 - 121	06/25/17 19:26	06/26/17 14:45	1
2,4,6-Tribromophenol	77		25 - 139	06/25/17 19:26	06/26/17 14:45	1
Terphenyl-d14	88		35 - 160	06/25/17 19:26	06/26/17 14:45	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	06/26/17 10:16	06/26/17 21:39	1
Arsenic	6.3		0.55	0.19	mg/Kg	☼	06/27/17 09:39	06/27/17 19:15	1
Barium	60		0.56	0.064	mg/Kg	☼	06/26/17 10:16	06/26/17 21:39	1
Beryllium	0.49		0.22	0.052	mg/Kg	☼	06/26/17 10:16	06/26/17 21:39	1
Boron	6.3		2.7	0.25	mg/Kg	☼	06/27/17 09:39	06/27/17 19:15	1
Cadmium	0.27 B		0.11	0.020	mg/Kg	☼	06/26/17 10:16	06/26/17 21:39	1
Calcium	23000 B		11	1.9	mg/Kg	☼	06/26/17 10:16	06/26/17 21:39	1
Chromium	11		0.56	0.28	mg/Kg	☼	06/26/17 10:16	06/26/17 21:39	1
Cobalt	9.1		0.28	0.073	mg/Kg	☼	06/26/17 10:16	06/26/17 21:39	1
Copper	20		0.56	0.16	mg/Kg	☼	06/26/17 10:16	06/26/17 21:39	1
Iron	15000		11	5.8	mg/Kg	☼	06/26/17 10:16	06/26/17 21:39	1
Lead	71		0.27	0.13	mg/Kg	☼	06/27/17 09:39	06/27/17 19:15	1
Magnesium	15000 B		5.5	2.7	mg/Kg	☼	06/27/17 09:39	06/27/17 19:15	1
Manganese	310		0.55	0.079	mg/Kg	☼	06/27/17 09:39	06/27/17 19:15	1
Nickel	22		0.56	0.16	mg/Kg	☼	06/26/17 10:16	06/26/17 21:39	1
Potassium	1300		28	9.9	mg/Kg	☼	06/26/17 10:16	06/26/17 21:39	1
Selenium	0.61		0.55	0.32	mg/Kg	☼	06/27/17 09:39	06/27/17 19:15	1
Silver	<0.28		0.28	0.072	mg/Kg	☼	06/26/17 10:16	06/26/17 21:39	1
Sodium	400		56	8.3	mg/Kg	☼	06/26/17 10:16	06/26/17 21:39	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	06/27/17 09:39	06/27/17 19:15	1
Vanadium	15		0.28	0.066	mg/Kg	☼	06/26/17 10:16	06/26/17 21:39	1
Zinc	73		1.1	0.49	mg/Kg	☼	06/26/17 10:16	06/26/17 21:39	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.33 J		0.50	0.050	mg/L		06/23/17 07:08	06/24/17 02:03	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/23/17 07:08	06/24/17 02:03	1
Boron	0.14 J B		0.50	0.050	mg/L		06/23/17 07:08	06/24/17 02:03	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-9

Client Sample ID: 2274V-47-B01 (0-7)

Lab Sample ID: 500-129768-15

Date Collected: 06/16/17 14:35

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.3

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	-	06/23/17 07:08	06/24/17 02:03	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:03	1
Cobalt	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:03	1
Iron	<0.40		0.40	0.20	mg/L	-	06/23/17 07:08	06/24/17 02:03	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/23/17 07:08	06/24/17 02:03	1
Manganese	1.0		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:03	1
Nickel	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:03	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/23/17 07:08	06/24/17 02:03	1
Silver	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:03	1
Zinc	0.025	J	0.50	0.020	mg/L	-	06/23/17 07:08	06/24/17 02:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.39		0.025	0.010	mg/L	-	06/23/17 07:12	06/25/17 01:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	06/23/17 07:08	06/23/17 19:01	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/23/17 07:08	06/23/17 19:01	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	06/22/17 10:29	06/23/17 10:33	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.049	B	0.018	0.0059	mg/Kg	☼	06/21/17 08:00	06/21/17 13:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.5		0.2	0.2	SU	-		06/29/17 16:29	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-9

Qualifiers

GC/MS Semi VOA

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

Metals

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-9

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/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 #: 500-129768
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 3.415

Client		Client Project #		Preservative		Parameter												Preservative Key	
<u>E+E</u>		<u>1009341.0015.02</u>																1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Project Location/State		Lab Project #		Lab PM													
<u>176-001-W015</u>		<u>Crestwood, IL</u>				<u>R. Wright</u>													
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix													Comments
<u>14</u>		<u>2274V-47-B02(O-1)</u>	<u>6/16/17</u>	<u>1430</u>	<u>5</u>	<u>5</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>									
<u>15</u>		<u>2274V-47-B01(O-1)</u>	<u>6/16/17</u>	<u>1435</u>	<u>5</u>	<u>5</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>									

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)

Reinquisitioned By: <u>J. Wagner</u> Company: <u>E+E</u> Date: <u>6/16/17</u> Time: <u>1510</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/16/17</u> Time: <u>1510</u>	Lab Courier: <u>TA</u>
Reinquisitioned By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/16/17</u> Time: <u>1600</u>	Received By: <u>[Signature]</u> Company: <u>TA/ME</u> Date: <u>6/16/17</u> Time: <u>1600</u>	Shipped: _____
Reinquisitioned By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: _____

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

Client Comments: _____
 Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-129768-9

Login Number: 129768

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	3.4, 4.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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ANALYTICAL REPORT

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

TestAmerica Job ID: 500-143379-2
Client Project/Site: IDOT - IL 83 - WO 015B

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

Attn: Mr. Dean Tiebout



Authorized for release by:
4/18/2018 8:27:59 AM

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

LINKS

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results through
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www.testamericainc.com

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-2

Job ID: 500-143379-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-143379-2

Receipt

The samples were received on 4/5/2018 2:42 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.8° 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

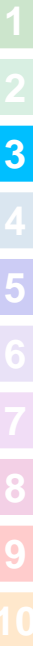
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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 83 - WO 015B

TestAmerica Job ID: 500-143379-2

Client Sample ID: 2274V-47-B03 (0-6)

Lab Sample ID: 500-143379-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	0.0079		0.0055	0.0024	mg/Kg	1	☼	8260B	Total/NA
Chloroform	0.0013	J B	0.0022	0.00076	mg/Kg	1	☼	8260B	Total/NA
Acetone - DL	0.21	J	0.31	0.11	mg/Kg	50	☼	8260B	Total/NA
Phenanthrene	0.052		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0090	J	0.038	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.12		0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.11		0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.062		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.082		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.11		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.040		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.075		0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.050		0.038	0.0098	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.015	J	0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.058		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.5		0.57	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	48		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.58		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	8.7		2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.28	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	12000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	13		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.9		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	17		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	15000	B	11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	24		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	8500		5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	310		0.57	0.082	mg/Kg	1	☼	6010B	Total/NA
Nickel	20		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2200		28	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.76		0.57	0.33	mg/Kg	1	☼	6010B	Total/NA
Silver	0.20	J	0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Sodium	95		57	8.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	19		0.28	0.067	mg/Kg	1	☼	6010B	Total/NA
Zinc	60		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.36	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.12	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0033	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.60		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.017	J B	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.024	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.20		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.023		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	8.3		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-47-B03 (6-11)

Lab Sample ID: 500-143379-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.018		0.018	0.0076	mg/Kg	1	☼	8260B	Total/NA
Benzo[b]fluoranthene	0.0098	J	0.041	0.0088	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 83 - WO 015B

TestAmerica Job ID: 500-143379-2

Client Sample ID: 2274V-47-B03 (6-11) (Continued)

Lab Sample ID: 500-143379-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	11		0.57	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	32		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.56		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	9.6		2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.23	B	0.11	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	140000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Chromium	10		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	10		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Copper	14		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	19000	B	11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	15		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	47000		5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	300		0.57	0.083	mg/Kg	1	☼	6010B	Total/NA
Nickel	21		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	2100		29	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.71		0.57	0.34	mg/Kg	1	☼	6010B	Total/NA
Silver	0.19	J	0.29	0.074	mg/Kg	1	☼	6010B	Total/NA
Sodium	230		57	8.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.29	0.067	mg/Kg	1	☼	6010B	Total/NA
Zinc	37		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.28	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.14	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0029	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.72		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.021	J B	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.14		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.020		0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	8.0		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 83 - WO 015B

TestAmerica Job ID: 500-143379-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-143379-3	2274V-47-B03 (0-6)	Solid	04/05/18 10:25	04/05/18 14:42
500-143379-4	2274V-47-B03 (6-11)	Solid	04/05/18 10:30	04/05/18 14:42

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-2

Client Sample ID: 2274V-47-B03 (0-6)

Lab Sample ID: 500-143379-3

Date Collected: 04/05/18 10:25

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0022		0.0022	0.00056	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Bromodichloromethane	<0.0022		0.0022	0.00045	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Bromoform	<0.0022		0.0022	0.00064	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Bromomethane	<0.0055		0.0055	0.0021	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
2-Butanone (MEK)	0.0079		0.0055	0.0024	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Carbon disulfide	<0.0055		0.0055	0.0011	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Carbon tetrachloride	<0.0022		0.0022	0.00064	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Chlorobenzene	<0.0022		0.0022	0.00081	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Chloroethane	<0.0055		0.0055	0.0016	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Chloroform	0.0013	J B	0.0022	0.00076	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Chloromethane	<0.0055		0.0055	0.0022	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
cis-1,2-Dichloroethene	<0.0022		0.0022	0.00061	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
cis-1,3-Dichloropropene	<0.0022		0.0022	0.00066	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Dibromochloromethane	<0.0022		0.0022	0.00072	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
1,1-Dichloroethane	<0.0022		0.0022	0.00075	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
1,2-Dichloroethane	<0.0055		0.0055	0.0017	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
1,1-Dichloroethene	<0.0022		0.0022	0.00075	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
1,2-Dichloropropane	<0.0022		0.0022	0.00057	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
1,3-Dichloropropene, Total	<0.0022		0.0022	0.00077	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Ethylbenzene	<0.0022		0.0022	0.0010	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
2-Hexanone	<0.0055		0.0055	0.0017	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Methylene Chloride	<0.0055		0.0055	0.0022	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
4-Methyl-2-pentanone (MIBK)	<0.0055		0.0055	0.0016	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Methyl tert-butyl ether	<0.0022		0.0022	0.00064	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Styrene	<0.0022		0.0022	0.00066	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
1,1,2,2-Tetrachloroethane	<0.0022		0.0022	0.00070	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Tetrachloroethene	<0.0022		0.0022	0.00075	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Toluene	<0.0022		0.0022	0.00055	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
trans-1,2-Dichloroethene	<0.0022		0.0022	0.00097	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
trans-1,3-Dichloropropene	<0.0022		0.0022	0.00077	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
1,1,1-Trichloroethane	<0.0022		0.0022	0.00074	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
1,1,2-Trichloroethane	<0.0022		0.0022	0.00094	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Trichloroethene	<0.0022		0.0022	0.00074	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Vinyl acetate	<0.0055		0.0055	0.0019	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Vinyl chloride	<0.0022		0.0022	0.00097	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1
Xylenes, Total	<0.0044		0.0044	0.00070	mg/Kg	☼	04/05/18 16:43	04/09/18 21:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		75 - 131	04/05/18 16:43	04/09/18 21:39	1
Dibromofluoromethane	107		75 - 126	04/05/18 16:43	04/09/18 21:39	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 134	04/05/18 16:43	04/09/18 21:39	1
Toluene-d8 (Surr)	107		75 - 124	04/05/18 16:43	04/09/18 21:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.21	J	0.31	0.11	mg/Kg	☼	04/05/18 10:25	04/13/18 17:27	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		72 - 124	04/05/18 10:25	04/13/18 17:27	50
Dibromofluoromethane	95		75 - 120	04/05/18 10:25	04/13/18 17:27	50

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-2

Client Sample ID: 2274V-47-B03 (0-6)

Lab Sample ID: 500-143379-3

Date Collected: 04/05/18 10:25

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 83.3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		75 - 126	04/05/18 10:25	04/13/18 17:27	50
Toluene-d8 (Surr)	101		75 - 120	04/05/18 10:25	04/13/18 17:27	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Nitrobenzene	<0.038		0.038	0.0094	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
2,4,5-Trichlorophenol	<0.38		0.38	0.086	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
2-Methylnaphthalene	<0.076		0.076	0.0070	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
2-Nitrophenol	<0.38		0.38	0.089	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
2,4-Dinitrophenol	<0.76		0.76	0.67	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-2

Client Sample ID: 2274V-47-B03 (0-6)

Lab Sample ID: 500-143379-3

Date Collected: 04/05/18 10:25

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Phenanthrene	0.052		0.038	0.0053	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Anthracene	0.0090	J	0.038	0.0063	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Fluoranthene	0.12		0.038	0.0070	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Pyrene	0.11		0.038	0.0075	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Benzo[a]anthracene	0.062		0.038	0.0051	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Chrysene	0.082		0.038	0.010	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Benzo[b]fluoranthene	0.11		0.038	0.0082	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Benzo[k]fluoranthene	0.040		0.038	0.011	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Benzo[a]pyrene	0.075		0.038	0.0073	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Indeno[1,2,3-cd]pyrene	0.050		0.038	0.0098	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Dibenz(a,h)anthracene	0.015	J	0.038	0.0073	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
Benzo[g,h,i]perylene	0.058		0.038	0.012	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	04/06/18 16:32	04/10/18 14:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	106		46 - 133	04/06/18 16:32	04/10/18 14:45	1
Phenol-d5	113		46 - 125	04/06/18 16:32	04/10/18 14:45	1
Nitrobenzene-d5	96		41 - 120	04/06/18 16:32	04/10/18 14:45	1
2-Fluorobiphenyl	92		44 - 121	04/06/18 16:32	04/10/18 14:45	1
2,4,6-Tribromophenol	83		25 - 139	04/06/18 16:32	04/10/18 14:45	1
Terphenyl-d14	103		35 - 160	04/06/18 16:32	04/10/18 14:45	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1
Arsenic	6.5		0.57	0.19	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1
Barium	48		0.57	0.065	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1
Beryllium	0.58		0.23	0.053	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1
Boron	8.7		2.8	0.26	mg/Kg	☼	04/10/18 07:48	04/11/18 23:22	1
Cadmium	0.28	B	0.11	0.020	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1
Calcium	12000	B	11	1.9	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1
Chromium	13		0.57	0.28	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1
Cobalt	8.9		0.28	0.074	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1
Copper	17		0.57	0.16	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1
Iron	15000	B	11	5.9	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1
Lead	24		0.28	0.13	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1
Magnesium	8500		5.7	2.8	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1
Manganese	310		0.57	0.082	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1
Nickel	20		0.57	0.16	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1
Potassium	2200		28	10	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1
Selenium	0.76		0.57	0.33	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1
Silver	0.20	J	0.28	0.073	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1
Sodium	95		57	8.4	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-2

Client Sample ID: 2274V-47-B03 (0-6)

Lab Sample ID: 500-143379-3

Date Collected: 04/05/18 10:25

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.57		0.57	0.28	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1
Vanadium	19		0.28	0.067	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1
Zinc	60		1.1	0.50	mg/Kg	☼	04/06/18 07:37	04/06/18 17:11	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.36	J	0.50	0.050	mg/L		04/10/18 06:49	04/11/18 02:36	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/10/18 06:49	04/11/18 02:36	1
Boron	0.12	J B	0.50	0.050	mg/L		04/10/18 06:49	04/11/18 02:36	1
Cadmium	0.0033	J	0.0050	0.0020	mg/L		04/10/18 06:49	04/11/18 02:36	1
Chromium	<0.025		0.025	0.010	mg/L		04/10/18 06:49	04/11/18 02:36	1
Cobalt	<0.025		0.025	0.010	mg/L		04/10/18 06:49	04/11/18 02:36	1
Iron	<0.40		0.40	0.20	mg/L		04/10/18 06:49	04/11/18 02:36	1
Lead	<0.0075		0.0075	0.0075	mg/L		04/10/18 06:49	04/11/18 02:36	1
Manganese	0.60		0.025	0.010	mg/L		04/10/18 06:49	04/11/18 02:36	1
Nickel	0.017	J B	0.025	0.010	mg/L		04/10/18 06:49	04/11/18 02:36	1
Selenium	<0.050		0.050	0.020	mg/L		04/10/18 06:49	04/11/18 02:36	1
Silver	<0.025		0.025	0.010	mg/L		04/10/18 06:49	04/11/18 02:36	1
Zinc	0.024	J	0.50	0.020	mg/L		04/10/18 06:49	04/11/18 02:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.20		0.025	0.010	mg/L		04/10/18 06:50	04/11/18 02:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		04/10/18 06:49	04/10/18 14:46	1
Thallium	<0.0020		0.0020	0.0020	mg/L		04/10/18 06:49	04/10/18 14:46	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		04/09/18 11:45	04/10/18 09:15	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023		0.018	0.0061	mg/Kg	☼	04/10/18 13:30	04/11/18 09:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.3		0.2	0.2	SU			04/17/18 14:55	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-2

Client Sample ID: 2274V-47-B03 (6-11)

Lab Sample ID: 500-143379-4

Date Collected: 04/05/18 10:30

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 82.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.018		0.018	0.0076	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Bromoform	<0.0018		0.0018	0.00051	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
2-Butanone (MEK)	<0.0044		0.0044	0.0019	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Carbon disulfide	<0.0044		0.0044	0.00091	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Dibromochloromethane	<0.0018		0.0018	0.00057	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
1,1-Dichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
1,1-Dichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
1,2-Dichloropropane	<0.0018		0.0018	0.00045	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Ethylbenzene	<0.0018		0.0018	0.00084	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00056	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Toluene	<0.0018		0.0018	0.00044	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00075	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Trichloroethene	<0.0018		0.0018	0.00059	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	04/05/18 16:43	04/10/18 12:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		75 - 131	04/05/18 16:43	04/10/18 12:43	1
Dibromofluoromethane	109		75 - 126	04/05/18 16:43	04/10/18 12:43	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	04/05/18 16:43	04/10/18 12:43	1
Toluene-d8 (Surr)	108		75 - 124	04/05/18 16:43	04/10/18 12:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.091	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.061	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
1,4-Dichlorobenzene	<0.21		0.21	0.052	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-2

Client Sample ID: 2274V-47-B03 (6-11)

Lab Sample ID: 500-143379-4

Date Collected: 04/05/18 10:30

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 82.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.047	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
2,4,5-Trichlorophenol	<0.41		0.41	0.093	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
2-Methylnaphthalene	<0.083		0.083	0.0075	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
2,6-Dinitrotoluene	<0.21		0.21	0.080	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Dimethyl phthalate	<0.21		0.21	0.053	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
2,4-Dinitrophenol	<0.83		0.83	0.72	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Hexachlorobenzene	<0.083		0.083	0.0095	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Diethyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Phenanthrene	<0.041		0.041	0.0057	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Anthracene	<0.041		0.041	0.0068	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Di-n-butyl phthalate	<0.21		0.21	0.062	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Pyrene	<0.041		0.041	0.0081	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-2

Client Sample ID: 2274V-47-B03 (6-11)

Lab Sample ID: 500-143379-4

Date Collected: 04/05/18 10:30

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 82.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.041		0.041	0.011	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Benzo[b]fluoranthene	0.0098	J	0.041	0.0088	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Benzo[a]pyrene	<0.041		0.041	0.0079	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	04/06/18 16:32	04/10/18 14:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	110		46 - 133	04/06/18 16:32	04/10/18 14:16	1
Phenol-d5	124		46 - 125	04/06/18 16:32	04/10/18 14:16	1
Nitrobenzene-d5	108		41 - 120	04/06/18 16:32	04/10/18 14:16	1
2-Fluorobiphenyl	99		44 - 121	04/06/18 16:32	04/10/18 14:16	1
2,4,6-Tribromophenol	92		25 - 139	04/06/18 16:32	04/10/18 14:16	1
Terphenyl-d14	110		35 - 160	04/06/18 16:32	04/10/18 14:16	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	1
Arsenic	11		0.57	0.20	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	1
Barium	32		0.57	0.065	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	1
Beryllium	0.56		0.23	0.053	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	1
Boron	9.6		2.7	0.25	mg/Kg	☼	04/10/18 07:48	04/11/18 23:27	1
Cadmium	0.23	B	0.11	0.021	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	1
Calcium	140000	B	110	19	mg/Kg	☼	04/06/18 07:37	04/09/18 22:41	10
Chromium	10		0.57	0.28	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	1
Cobalt	10		0.29	0.075	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	1
Copper	14		0.57	0.16	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	1
Iron	19000	B	11	5.9	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	1
Lead	15		0.29	0.13	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	1
Magnesium	47000		5.7	2.8	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	1
Manganese	300		0.57	0.083	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	1
Nickel	21		0.57	0.17	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	1
Potassium	2100		29	10	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	1
Selenium	0.71		0.57	0.34	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	1
Silver	0.19	J	0.29	0.074	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	1
Sodium	230		57	8.5	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	1
Thallium	<0.57		0.57	0.29	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	1
Vanadium	15		0.29	0.067	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	1
Zinc	37		1.1	0.50	mg/Kg	☼	04/06/18 07:37	04/06/18 17:16	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		04/10/18 06:49	04/11/18 02:41	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/10/18 06:49	04/11/18 02:41	1
Boron	0.14	J B	0.50	0.050	mg/L		04/10/18 06:49	04/11/18 02:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-2

Client Sample ID: 2274V-47-B03 (6-11)

Lab Sample ID: 500-143379-4

Date Collected: 04/05/18 10:30

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 82.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0029	J	0.0050	0.0020	mg/L	-	04/10/18 06:49	04/11/18 02:41	1
Chromium	<0.025		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:41	1
Cobalt	<0.025		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:41	1
Iron	<0.40		0.40	0.20	mg/L	-	04/10/18 06:49	04/11/18 02:41	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	04/10/18 06:49	04/11/18 02:41	1
Manganese	0.72		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:41	1
Nickel	0.021	J B	0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:41	1
Selenium	<0.050		0.050	0.020	mg/L	-	04/10/18 06:49	04/11/18 02:41	1
Silver	<0.025		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:41	1
Zinc	<0.50		0.50	0.020	mg/L	-	04/10/18 06:49	04/11/18 02:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.14		0.025	0.010	mg/L	-	04/10/18 06:50	04/11/18 02:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	04/10/18 06:49	04/10/18 14:47	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	04/10/18 06:49	04/10/18 14:47	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	04/09/18 11:45	04/10/18 09:16	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020		0.019	0.0064	mg/Kg	☼	04/10/18 13:30	04/11/18 09:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.0		0.2	0.2	SU	-		04/17/18 14:56	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-2

Qualifiers

GC/MS VOA

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

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-2

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/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

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 #: 500-143379
 Chain of Custody Number: E915B-09
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter												Preservative Key	
EE		1001341-0015-03																1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #		# of Containers		Matrix		Voc		Svoc		Total PCB metals		Zn/Cd/Pb/P		Pb/Cd/As		Comments	
176-001-15B		50013464		2		S		X		X		X		X		X			
Project Location/State		Lab PM		Date		Time													
Cook County, IL		P. Wright		4-5-18		1030		X		X		X		X		X			
Sampler																			
S. Cooper																			
Lab ID	MS/MSD	Sample ID		Sampling		# of Containers	Matrix												
3		2274V-47-303(0-6)		2-5-18	1025	2	S	X	X	X	X	X	X	X	X	X	X	X	
4		2274V-47-303(6-11)		4-5-18	1030	2	S	X	X	X	X	X	X	X	X	X	X	X	

Turnaround Time Required (Business Days)

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

Sample Disposal

Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
S. Cooper	EE	4-5-18	1155	P. Neal	TA	4/5/18	1155
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
P. Neal	TA	4/5/18	1442	Sherrin Roberts	TA-CHT	4/5/18	1442
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: JA
 Shipped: _____
 Hand Delivered: _____

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

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-143379-2

Login Number: 143379

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





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

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

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

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

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

I. Source Location Information

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

Project Name: FAP 344 (Illinois Route 83) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
12700 block of Cal-Sag Road (ISGS #2274V-48)

City: Crestwood State: IL Zip Code: 60445

County: Cook Township: Worth

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

Latitude: 41.66080 Longitude: -87.75268
(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: 0310605500 BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Tyler Petersen

Contact: Tyler Petersen

Email, if available: Tyler.Petersen@illinois.gov

Email, if available: Tyler.Petersen@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: FAP 344 (Illinois Route 83)Latitude: 41.66080 Longitude: -87.75268Uncontaminated 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 2274V-48-B01, -B02, and -B03 were sampled within the construction zone adjacent to ISGS #2274V-48 (Playfield Park). Refer to PSI Report for ISGS #2274V-48 (Playfield Park) including Table 4-3, and Figures 4-2 and 4-6.

- 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 J129768-10.

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

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

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

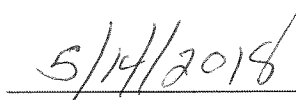
Company Name: Ecology and Environment, Inc.Street Address: 33 West Monroe StreetCity: Chicago State: IL Zip Code: 60603Phone: 312-578-9243

Neil J. Brown

Printed Name:



Licensed Professional Engineer or
Licensed Professional Geologist Signature:



Date:



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





Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15B

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 or not applicable.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.
- PID = Photoionization detector.
- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

- # = pH is less than 6.25 or greater than 9.0 standard units.
- ** = Headspace reading above background (outside of instrument margin of error).
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Headspace reading exceeds background levels
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #2274V-48 (Playfield Park)			Comparison Criteria					
	2274V-48-B01			MACs			TACO		
BORING	2274V-48-B01 (0-8)								
SAMPLE	2274V-48-B01 (0-8)	2274V-48-B01 (0-8)D	2274V-48-B01 (8-16)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil	Soil	Soil						
DEPTH (feet)	0-8	0-8	8-16						
pH	8.9	9.0	8.3						
VOCs (None Detected)									
SVOCs (mg/kg)									
2-Methylnaphthalene	0.0073 J	ND U	ND U	--	--	--	--	--	--
Acenaphthene	0.041	ND U	ND U	570	--	--	4,700	120,000	--
Acenaphthylene	0.015 J	0.011 J	ND U	--	--	--	--	--	--
Anthracene	0.32	0.018 J	ND U	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	1.0 †	0.10	ND U	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	1.1 †	0.12 †	ND U	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	1.5 J †	0.19 J	ND U	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.40	0.061	ND U	--	--	--	--	--	--
Benzo(k)fluoranthene	0.59	0.072	ND U	9	--	--	9	1,700	--
Bis(2-ethylhexyl) phthalate	0.097 J	ND U	ND U	46	--	--	46	4,100	--
Carbazole	ND U	ND U	ND U	0.6	--	--	32	6,200	--
Chrysene	1.1	0.13	ND U	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.13 †	0.016 J	ND U	0.09	0.42	0.2	0.42	17	--
Fluoranthene	1.7 J	0.19 J	ND U	3,100	--	--	3,100	82,000	--
Fluorene	0.055	ND U	ND U	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.42	0.062	ND U	0.9	1.6	0.9	1.6	170	--
Naphthalene	0.0082 J	ND U	ND U	1.8	--	--	170	1.8	--
Phenanthrene	0.75	0.070	ND U	--	--	--	--	--	--
Pyrene	1.5	0.16	ND U	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)									
Arsenic	5.7	6.3	6.1	11.3	13	--	13	61	--
Barium	47	54	13	1,500	--	--	5,500	14,000	--
Beryllium	0.46	0.48	0.18 J	22	--	--	160	410	--
Boron	5.3	4.8	4.7	40	--	--	16,000	41,000	--
Cadmium	0.37	0.43	ND U	5.2	--	--	78	200	--
Calcium	30,000	26,000	19,000	--	--	--	--	--	--
Chromium	12	13	4.4	21	--	--	230	690	--
Cobalt	8.4	8.4	4.9	20	--	--	4,700	12,000	--
Copper	24	22	11	2,900	--	--	2,900	8,200	--
Iron	15,000	14,000	8,500	15,000	15,900	--	--	--	--
Lead	57	51	48	107	--	--	400	700	--
Magnesium	27,000 J	13,000 J	12,000	325,000	--	--	--	730,000	--
Manganese	250	240	230	630	636	--	1,600	4,100	--
Nickel	22	21	11	100	--	--	1,600	4,100	--
Potassium	1,300	1,300	1,000 J	--	--	--	--	--	--
Selenium	0.50 J	0.47 J	0.71	1.3	--	--	390	1,000	--
Silver	ND U	ND U	ND U	4.4	--	--	390	1,000	--
Sodium	1,400	1,400	590	--	--	--	--	--	--
Vanadium	16	15	6.0	550	--	--	550	1,400	--
Zinc	110	110	26	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)									
Barium	0.33 J	0.34 J	0.20 J	--	--	--	--	--	2
Cadmium	0.0030 J	0.0033 J	0.0020 J	--	--	--	--	--	0.005
Chromium	ND U	ND U	ND U	--	--	--	--	--	0.1
Cobalt	ND U	ND U	0.029	--	--	--	--	--	1
Iron	ND U	ND U	ND U	--	--	--	--	--	5
Manganese	0.58 L	0.58 L	1.6 L	--	--	--	--	--	0.15
Nickel	0.013 J	0.013 J	0.042	--	--	--	--	--	0.1
Zinc	0.072 J	0.052 J	ND U	--	--	--	--	--	5
SPLP Metals (mg/L)									
Cadmium	NA	NA	NA	--	--	--	--	--	0.005
Manganese	0.88 L	0.97 L	0.037	--	--	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #2274V-48 (Playfield Park)		Comparison Criteria						
BORING	2274V-48-B02	2274V-48-B03	MACs			TACO			
SAMPLE	2274V-48-B02 (0-1)	2274V-48-B03 (0-7)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER	
MATRIX	Soil	Soil							
DEPTH (feet)	0-1	0-7							
pH	8.6	8.0							
VOCs (None Detected)									
SVOCs (mg/kg)									
2-Methylnaphthalene	ND U	0.0098 J	--	--	--	--	--	--	
Acenaphthene	0.031 J	ND U	570	--	--	4,700	120,000	--	
Acenaphthylene	0.036 J	0.011 J	--	--	--	--	--	--	
Anthracene	0.21	0.013 J	12,000	--	--	23,000	610,000	--	
Benzo(a)anthracene	0.95 †	0.059	0.9	1.8	1.1	1.8	170	--	
Benzo(a)pyrene	1.1 †	0.069	0.09	2.1	1.3	2.1	17	--	
Benzo(b)fluoranthene	1.7 †*	0.11	0.9	2.1	1.5	2.1	170	--	
Benzo(g,h,i)perylene	0.57	0.036 J	--	--	--	--	--	--	
Benzo(k)fluoranthene	0.84	0.045	9	--	--	9	1,700	--	
Bis(2-ethylhexyl) phthalate	0.12 J	ND U	46	--	--	46	4,100	--	
Carbazole	0.096 J	ND U	0.6	--	--	32	6,200	--	
Chrysene	1.2	0.074	88	--	--	88	17,000	--	
Dibenz(a,h)anthracene	0.15 †	0.016 J	0.09	0.42	0.2	0.42	17	--	
Fluoranthene	2.0	0.12	3,100	--	--	3,100	82,000	--	
Fluorene	0.046	ND U	560	--	--	3,100	82,000	--	
Indeno(1,2,3-cd)pyrene	0.53	0.037 J	0.9	1.6	0.9	1.6	170	--	
Naphthalene	0.011 J	0.0076 J	1.8	--	--	170	1.8	--	
Phenanthrene	0.87	0.058	--	--	--	--	--	--	
Pyrene	1.7	0.10	2,300	--	--	2,300	61,000	--	
Inorganics (mg/kg)									
Arsenic	5.8	6.6	11.3	13	--	13	61	--	
Barium	110	64	1,500	--	--	5,500	14,000	--	
Beryllium	0.52	0.46	22	--	--	160	410	--	
Boron	3.1	7.0	40	--	--	16,000	41,000	--	
Cadmium	0.69	1.1	5.2	--	--	78	200	--	
Calcium	8,800	71,000	--	--	--	--	--	--	
Chromium	22 †	17	21	--	--	230	690	--	
Cobalt	9.8	10	20	--	--	4,700	12,000	--	
Copper	21	30	2,900	--	--	2,900	8,200	--	
Iron	15,000	16,000 †m	15,000	15,900	--	--	--	--	
Lead	27	45	107	--	--	400	700	--	
Magnesium	5,500	31,000	325,000	--	--	--	730,000	--	
Manganese	510	410	630	636	--	1,600	4,100	--	
Nickel	18	24	100	--	--	1,600	4,100	--	
Potassium	1,000	1,400	--	--	--	--	--	--	
Selenium	0.75	ND U	1.3	--	--	390	1,000	--	
Silver	ND U	0.24 J	4.4	--	--	390	1,000	--	
Sodium	780	300	--	--	--	--	--	--	
Vanadium	23	14	550	--	--	550	1,400	--	
Zinc	94	95	5,100	--	--	23,000	61,000	--	
TCLP Metals (mg/L)									
Barium	0.50	0.47 J	--	--	--	--	--	2	
Cadmium	0.0026 J	0.0058 L	--	--	--	--	--	0.005	
Chromium	ND U	ND U	--	--	--	--	--	0.1	
Cobalt	ND U	0.021 J	--	--	--	--	--	1	
Iron	ND U	ND U	--	--	--	--	--	5	
Manganese	0.29 L	3.9 L	--	--	--	--	--	0.15	
Nickel	ND U	0.025	--	--	--	--	--	0.1	
Zinc	0.095 J	0.13 J	--	--	--	--	--	5	
SPLP Metals (mg/L)									
Cadmium	NA	ND U	--	--	--	--	--	0.005	
Manganese	1.0 L	0.31 L	--	--	--	--	--	0.15	

Analytical Data Summary

PTB #176-01; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15

Key to Data Tables

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

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed.

J = Estimated value.

U = Analyte was analyzed for but not detected.


Criteria Qualifiers and Shading

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.

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

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

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

 = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #2274V-48 (Playfield Park)			Comparison Criteria						
	2274V-48-B01			MACs			TACO			
BORING	2274V-48-B01 (0-8)			2274V-48-B01 (0-8)D	2274V-48-B01 (8-16)					
SAMPLE	2274V-48-B01 (0-8)	2274V-48-B01 (0-8)D	2274V-48-B01 (8-16)							
MATRIX	Soil	Soil	Soil	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER	
DEPTH (feet)	0-8	0-8	8-16							
pH	8.9	9.0	8.3							
VOCs (None Detected)										
SVOCs (mg/kg)										
2-Methylnaphthalene	0.0073 J	ND U	ND U	--	--	--	--	--	--	
Acenaphthene	0.041	ND U	ND U	570	--	--	4,700	120,000	--	
Acenaphthylene	0.015 J	0.011 J	ND U	--	--	--	--	--	--	
Anthracene	0.32	0.018 J	ND U	12,000	--	--	23,000	610,000	--	
Benzo(a)anthracene	1.0 †	0.10	ND U	0.9	1.8	1.1	1.8	170	--	
Benzo(a)pyrene	1.1 †	0.12 †	ND U	0.09	2.1	1.3	2.1	17	--	
Benzo(b)fluoranthene	1.5 J †	0.19 J	ND U	0.9	2.1	1.5	2.1	170	--	
Benzo(g,h,i)perylene	0.40	0.061	ND U	--	--	--	--	--	--	
Benzo(k)fluoranthene	0.59	0.072	ND U	9	--	--	9	1,700	--	
Bis(2-ethylhexyl) phthalate	0.097 J	ND U	ND U	46	--	--	46	4,100	--	
Carbazole	ND U	ND U	ND U	0.6	--	--	32	6,200	--	
Chrysene	1.1	0.13	ND U	88	--	--	88	17,000	--	
Dibenz(a,h)anthracene	0.13 †	0.016 J	ND U	0.09	0.42	0.2	0.42	17	--	
Fluoranthene	1.7 J	0.19 J	ND U	3,100	--	--	3,100	82,000	--	
Fluorene	0.055	ND U	ND U	560	--	--	3,100	82,000	--	
Indeno(1,2,3-cd)pyrene	0.42	0.062	ND U	0.9	1.6	0.9	1.6	170	--	
Naphthalene	0.0082 J	ND U	ND U	1.8	--	--	170	1.8	--	
Phenanthrene	0.75	0.070	ND U	--	--	--	--	--	--	
Pyrene	1.5	0.16	ND U	2,300	--	--	2,300	61,000	--	
Inorganics (mg/kg)										
Arsenic	5.7	6.3	6.1	11.3	13	--	13	61	--	
Barium	47	54	13	1,500	--	--	5,500	14,000	--	
Beryllium	0.46	0.48	0.18 J	22	--	--	160	410	--	
Boron	5.3	4.8	4.7	40	--	--	16,000	41,000	--	
Cadmium	0.37	0.43	ND U	5.2	--	--	78	200	--	
Calcium	30,000	26,000	19,000	--	--	--	--	--	--	
Chromium	12	13	4.4	21	--	--	230	690	--	
Cobalt	8.4	8.4	4.9	20	--	--	4,700	12,000	--	
Copper	24	22	11	2,900	--	--	2,900	8,200	--	
Iron	15,000	14,000	8,500	15,000	15,900	--	--	--	--	
Lead	57	51	48	107	--	--	400	700	--	
Magnesium	27,000 J	13,000 J	12,000	325,000	--	--	--	730,000	--	
Manganese	250	240	230	630	636	--	1,600	4,100	--	
Nickel	22	21	11	100	--	--	1,600	4,100	--	
Potassium	1,300	1,300	1,000 J	--	--	--	--	--	--	
Selenium	0.50 J	0.47 J	0.71	1.3	--	--	390	1,000	--	
Silver	ND U	ND U	ND U	4.4	--	--	390	1,000	--	
Sodium	1,400	1,400	590	--	--	--	--	--	--	
Vanadium	16	15	6.0	550	--	--	550	1,400	--	
Zinc	110	110	26	5,100	--	--	23,000	61,000	--	
TCLP Metals (mg/L)										
Barium	0.33 J	0.34 J	0.20 J	--	--	--	--	--	2	
Cadmium	0.0030 J	0.0033 J	0.0020 J	--	--	--	--	--	0.005	
Chromium	ND U	ND U	ND U	--	--	--	--	--	0.1	
Cobalt	ND U	ND U	0.029	--	--	--	--	--	1	
Iron	ND U	ND U	ND U	--	--	--	--	--	5	
Manganese	0.58 L	0.58 L	1.6 L	--	--	--	--	--	0.15	
Nickel	0.013 J	0.013 J	0.042	--	--	--	--	--	0.1	
Zinc	0.072 J	0.052 J	ND U	--	--	--	--	--	5	
SPLP Metals (mg/L)										
Cadmium	NA	NA	NA	--	--	--	--	--	0.005	
Manganese	0.88 L	0.97 L	0.037	--	--	--	--	--	0.15	

CONTAMINANTS OF CONCERN

SITE	ISGS #2274V-48 (Playfield Park)		Comparison Criteria						
BORING	2274V-48-B02	2274V-48-B03	MACs			TACO			
SAMPLE	2274V-48-B02 (0-1)	2274V-48-B03 (0-7)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER	
MATRIX	Soil	Soil							
DEPTH (feet)	0-1	0-7							
pH	8.6	8.0							
VOCs (None Detected)									
SVOCs (mg/kg)									
2-Methylnaphthalene	ND U	0.0098 J	--	--	--	--	--	--	
Acenaphthene	0.031 J	ND U	570	--	--	4,700	120,000	--	
Acenaphthylene	0.036 J	0.011 J	--	--	--	--	--	--	
Anthracene	0.21	0.013 J	12,000	--	--	23,000	610,000	--	
Benzo(a)anthracene	0.95 †	0.059	0.9	1.8	1.1	1.8	170	--	
Benzo(a)pyrene	1.1 †	0.069	0.09	2.1	1.3	2.1	17	--	
Benzo(b)fluoranthene	1.7 †*	0.11	0.9	2.1	1.5	2.1	170	--	
Benzo(g,h,i)perylene	0.57	0.036 J	--	--	--	--	--	--	
Benzo(k)fluoranthene	0.84	0.045	9	--	--	9	1,700	--	
Bis(2-ethylhexyl) phthalate	0.12 J	ND U	46	--	--	46	4,100	--	
Carbazole	0.096 J	ND U	0.6	--	--	32	6,200	--	
Chrysene	1.2	0.074	88	--	--	88	17,000	--	
Dibenz(a,h)anthracene	0.15 †	0.016 J	0.09	0.42	0.2	0.42	17	--	
Fluoranthene	2.0	0.12	3,100	--	--	3,100	82,000	--	
Fluorene	0.046	ND U	560	--	--	3,100	82,000	--	
Indeno(1,2,3-cd)pyrene	0.53	0.037 J	0.9	1.6	0.9	1.6	170	--	
Naphthalene	0.011 J	0.0076 J	1.8	--	--	170	1.8	--	
Phenanthrene	0.87	0.058	--	--	--	--	--	--	
Pyrene	1.7	0.10	2,300	--	--	2,300	61,000	--	
Inorganics (mg/kg)									
Arsenic	5.8	6.6	11.3	13	--	13	61	--	
Barium	110	64	1,500	--	--	5,500	14,000	--	
Beryllium	0.52	0.46	22	--	--	160	410	--	
Boron	3.1	7.0	40	--	--	16,000	41,000	--	
Cadmium	0.69	1.1	5.2	--	--	78	200	--	
Calcium	8,800	71,000	--	--	--	--	--	--	
Chromium	22 †	17	21	--	--	230	690	--	
Cobalt	9.8	10	20	--	--	4,700	12,000	--	
Copper	21	30	2,900	--	--	2,900	8,200	--	
Iron	15,000	16,000 †m	15,000	15,900	--	--	--	--	
Lead	27	45	107	--	--	400	700	--	
Magnesium	5,500	31,000	325,000	--	--	--	730,000	--	
Manganese	510	410	630	636	--	1,600	4,100	--	
Nickel	18	24	100	--	--	1,600	4,100	--	
Potassium	1,000	1,400	--	--	--	--	--	--	
Selenium	0.75	ND U	1.3	--	--	390	1,000	--	
Silver	ND U	0.24 J	4.4	--	--	390	1,000	--	
Sodium	780	300	--	--	--	--	--	--	
Vanadium	23	14	550	--	--	550	1,400	--	
Zinc	94	95	5,100	--	--	23,000	61,000	--	
TCLP Metals (mg/L)									
Barium	0.50	0.47 J	--	--	--	--	--	2	
Cadmium	0.0026 J	0.0058 L	--	--	--	--	--	0.005	
Chromium	ND U	ND U	--	--	--	--	--	0.1	
Cobalt	ND U	0.021 J	--	--	--	--	--	1	
Iron	ND U	ND U	--	--	--	--	--	5	
Manganese	0.29 L	3.9 L	--	--	--	--	--	0.15	
Nickel	ND U	0.025	--	--	--	--	--	0.1	
Zinc	0.095 J	0.13 J	--	--	--	--	--	5	
SPLP Metals (mg/L)									
Cadmium	NA	ND U	--	--	--	--	--	0.005	
Manganese	1.0 L	0.31 L	--	--	--	--	--	0.15	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 500-129768-10
Client Project/Site: IDOT - IL 83 - WO 015

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/30/2017 11:52:34 AM

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Job ID: 500-129768-10

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-129768-10

Receipt

The samples were received on 6/16/2017 4:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 4.5° 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 500-390790 had 1 analyte outside control limits: 2,4-Dinitrophenol. 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

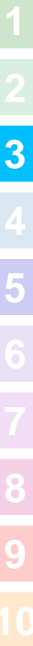
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B03 (0-7)

Lab Sample ID: 500-129768-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0076	J	0.038	0.0059	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.0098	J	0.077	0.0070	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.011	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.058		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.013	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.12		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.10		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.059		0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.074		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.11		0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.045		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.069		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.037	J	0.038	0.0099	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.016	J	0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.036	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.6		0.59	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	64		0.58	0.067	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.46		0.23	0.055	mg/Kg	1	☼	6010B	Total/NA
Boron	7.0		2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	1.1	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	71000	B	120	20	mg/Kg	10	☼	6010B	Total/NA
Chromium	17		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	10		0.29	0.077	mg/Kg	1	☼	6010B	Total/NA
Copper	30		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	16000		12	6.1	mg/Kg	1	☼	6010B	Total/NA
Lead	45		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	31000	B	5.9	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	410		0.59	0.085	mg/Kg	1	☼	6010B	Total/NA
Nickel	24		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	1400		29	10	mg/Kg	1	☼	6010B	Total/NA
Silver	0.24	J	0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Sodium	300		58	8.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.29	0.069	mg/Kg	1	☼	6010B	Total/NA
Zinc	95		1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Barium	0.47	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.15	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0058		0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.021	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	3.9		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.025		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.13	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.31		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.056	B	0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	8.0		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-48-B02 (0-1)

Lab Sample ID: 500-129768-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.011	J	0.038	0.0059	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.036	J	0.038	0.0050	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 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B02 (0-1) (Continued)

Lab Sample ID: 500-129768-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.031	J	0.038	0.0069	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.046		0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.87		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.21		0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Carbazole	0.096	J	0.19	0.095	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	2.0		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	1.7		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.95		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	1.2		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.12	J	0.19	0.070	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1.7		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.84		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	1.1		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.53		0.038	0.0099	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.15		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.57		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.8		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	110		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.52		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	3.1		2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.69	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	8800	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	22		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.8		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	21		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	27		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	5500	B	5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	510		0.58	0.084	mg/Kg	1	☼	6010B	Total/NA
Nickel	18		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1000		28	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.75		0.58	0.34	mg/Kg	1	☼	6010B	Total/NA
Sodium	780		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	94		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.50		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.097	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0026	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.29		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.095	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.0		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.052	B	0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	8.6		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-48-B01 (0-8)

Lab Sample ID: 500-129768-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0082	J	0.037	0.0058	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.0073	J	0.075	0.0069	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.015	J	0.037	0.0049	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 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B01 (0-8) (Continued)

Lab Sample ID: 500-129768-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.041		0.037	0.0067	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.055		0.037	0.0053	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.75		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.32		0.037	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	1.7		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	1.5		0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	1.0		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	1.1		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.097	J	0.19	0.068	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1.5		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.59		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	1.1		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.42		0.037	0.0097	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.13		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.40		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.7		0.57	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	47		0.54	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.46		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	5.3		2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.37	B	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	30000	B	11	1.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	12		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.4		0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Copper	24		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		11	5.6	mg/Kg	1	☼	6010B	Total/NA
Lead	57		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	27000	B	5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	250		0.57	0.083	mg/Kg	1	☼	6010B	Total/NA
Nickel	22		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		27	9.6	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.50	J	0.57	0.34	mg/Kg	1	☼	6010B	Total/NA
Sodium	1400		54	8.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	110		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.33	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.15	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0030	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.58		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.072	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.88		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.052	B	0.018	0.0060	mg/Kg	1	☼	7471B	Total/NA
pH	8.9		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-48-B01 (0-8)D

Lab Sample ID: 500-129768-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.011	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.070		0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.018	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B01 (0-8)D (Continued)

Lab Sample ID: 500-129768-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.19		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.16		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.10		0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.13		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.19		0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.072		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.12		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.062		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.016	J	0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.061		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.3		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	54		0.51	0.058	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.48		0.20	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	4.8		2.7	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.43	B	0.10	0.018	mg/Kg	1	☼	6010B	Total/NA
Calcium	26000	B	10	1.7	mg/Kg	1	☼	6010B	Total/NA
Chromium	13		0.51	0.25	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.4		0.25	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	22		0.51	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	14000		10	5.3	mg/Kg	1	☼	6010B	Total/NA
Lead	51		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	13000	B	5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	240		0.55	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	21		0.51	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		25	8.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.47	J	0.55	0.32	mg/Kg	1	☼	6010B	Total/NA
Sodium	1400		51	7.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.25	0.060	mg/Kg	1	☼	6010B	Total/NA
Zinc	110		1.0	0.44	mg/Kg	1	☼	6010B	Total/NA
Barium	0.34	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.15	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0033	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.58		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.052	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.97		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.035	B	0.018	0.0060	mg/Kg	1	☼	7471B	Total/NA
pH	9.0		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-48-B01 (8-16)

Lab Sample ID: 500-129768-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.1		0.53	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	13		0.46	0.053	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.18	J	0.19	0.043	mg/Kg	1	☼	6010B	Total/NA
Boron	4.7		2.6	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.054	J B	0.093	0.017	mg/Kg	1	☼	6010B	Total/NA
Calcium	19000	B	11	1.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	4.4		0.46	0.23	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.9		0.23	0.061	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 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B01 (8-16) (Continued)

Lab Sample ID: 500-129768-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	11		0.46	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	8500		9.3	4.8	mg/Kg	1	☼	6010B	Total/NA
Lead	48		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	12000	B	5.3	2.6	mg/Kg	1	☼	6010B	Total/NA
Manganese	230		0.53	0.077	mg/Kg	1	☼	6010B	Total/NA
Nickel	11		0.46	0.13	mg/Kg	1	☼	6010B	Total/NA
Potassium	1000	F1	23	8.2	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.71		0.53	0.31	mg/Kg	1	☼	6010B	Total/NA
Sodium	590		46	6.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	6.0		0.23	0.055	mg/Kg	1	☼	6010B	Total/NA
Zinc	26		0.93	0.41	mg/Kg	1	☼	6010B	Total/NA
Barium	0.20	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.10	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0020	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.029		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	1.6		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.042		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.037		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.029	B	0.017	0.0057	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 83 - WO 015

TestAmerica Job ID: 500-129768-10

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-129768-16	2274V-48-B03 (0-7)	Solid	06/16/17 10:50	06/16/17 16:00
500-129768-17	2274V-48-B02 (0-1)	Solid	06/16/17 11:08	06/16/17 16:00
500-129768-18	2274V-48-B01 (0-8)	Solid	06/16/17 11:50	06/16/17 16:00
500-129768-19	2274V-48-B01 (0-8)D	Solid	06/16/17 11:50	06/16/17 16:00
500-129768-20	2274V-48-B01 (8-16)	Solid	06/16/17 11:55	06/16/17 16:00

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

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B03 (0-7)

Lab Sample ID: 500-129768-16

Date Collected: 06/16/17 10:50

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0081	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Benzene	<0.0019		0.0019	0.00047	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Bromodichloromethane	<0.0019		0.0019	0.00038	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Bromoform	<0.0019		0.0019	0.00054	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
2-Butanone (MEK)	<0.0046		0.0046	0.0021	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Carbon disulfide	<0.0046		0.0046	0.00096	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Carbon tetrachloride	<0.0019		0.0019	0.00054	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Chlorobenzene	<0.0019		0.0019	0.00068	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Chloroform	<0.0019		0.0019	0.00064	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Chloromethane	<0.0046		0.0046	0.0019	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00052	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00056	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Dibromochloromethane	<0.0019		0.0019	0.00061	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
1,1-Dichloroethane	<0.0019		0.0019	0.00063	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
1,1-Dichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
1,2-Dichloropropane	<0.0019		0.0019	0.00048	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00065	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Ethylbenzene	<0.0019		0.0019	0.00089	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00054	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Styrene	<0.0019		0.0019	0.00056	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00059	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Tetrachloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Toluene	<0.0019		0.0019	0.00047	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00082	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00065	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00079	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Trichloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Vinyl acetate	<0.0046		0.0046	0.0016	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Vinyl chloride	<0.0019		0.0019	0.00082	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	06/16/17 17:21	06/22/17 18:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		75 - 131	06/16/17 17:21	06/22/17 18:42	1
Dibromofluoromethane	92		75 - 126	06/16/17 17:21	06/22/17 18:42	1
1,2-Dichloroethane-d4 (Surr)	89		70 - 134	06/16/17 17:21	06/22/17 18:42	1
Toluene-d8 (Surr)	90		75 - 124	06/16/17 17:21	06/22/17 18:42	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	☼	06/25/17 19:26	06/26/17 15:10	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B03 (0-7)

Lab Sample ID: 500-129768-16

Date Collected: 06/16/17 10:50

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.0

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	☼	06/25/17 19:26	06/26/17 15:10	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Naphthalene	0.0076	J	0.038	0.0059	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
2-Methylnaphthalene	0.0098	J	0.077	0.0070	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
2,4-Dinitrophenol	<0.77	*	0.77	0.67	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Acenaphthylene	0.011	J	0.038	0.0051	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Phenanthrene	0.058		0.038	0.0053	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Anthracene	0.013	J	0.038	0.0064	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Fluoranthene	0.12		0.038	0.0071	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Pyrene	0.10		0.038	0.0076	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Benzo[a]anthracene	0.059		0.038	0.0052	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B03 (0-7)

Lab Sample ID: 500-129768-16

Date Collected: 06/16/17 10:50

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.074		0.038	0.010	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Benzo[b]fluoranthene	0.11		0.038	0.0083	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Benzo[k]fluoranthene	0.045		0.038	0.011	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Benzo[a]pyrene	0.069		0.038	0.0074	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Indeno[1,2,3-cd]pyrene	0.037	J	0.038	0.0099	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Dibenz(a,h)anthracene	0.016	J	0.038	0.0074	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
Benzo[g,h,i]perylene	0.036	J	0.038	0.012	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	06/25/17 19:26	06/26/17 15:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	80		46 - 133	06/25/17 19:26	06/26/17 15:10	1
Phenol-d5	77		46 - 125	06/25/17 19:26	06/26/17 15:10	1
Nitrobenzene-d5	64		41 - 120	06/25/17 19:26	06/26/17 15:10	1
2-Fluorobiphenyl	66		44 - 121	06/25/17 19:26	06/26/17 15:10	1
2,4,6-Tribromophenol	82		25 - 139	06/25/17 19:26	06/26/17 15:10	1
Terphenyl-d14	95		35 - 160	06/25/17 19:26	06/26/17 15:10	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	06/26/17 10:16	06/26/17 21:43	1
Arsenic	6.6		0.59	0.20	mg/Kg	☼	06/27/17 09:39	06/27/17 19:19	1
Barium	64		0.58	0.067	mg/Kg	☼	06/26/17 10:16	06/26/17 21:43	1
Beryllium	0.46		0.23	0.055	mg/Kg	☼	06/26/17 10:16	06/26/17 21:43	1
Boron	7.0		2.9	0.27	mg/Kg	☼	06/27/17 09:39	06/27/17 19:19	1
Cadmium	1.1	B	0.12	0.021	mg/Kg	☼	06/26/17 10:16	06/26/17 21:43	1
Calcium	71000	B	120	20	mg/Kg	☼	06/26/17 10:16	06/27/17 12:13	10
Chromium	17		0.58	0.29	mg/Kg	☼	06/26/17 10:16	06/26/17 21:43	1
Cobalt	10		0.29	0.077	mg/Kg	☼	06/26/17 10:16	06/26/17 21:43	1
Copper	30		0.58	0.16	mg/Kg	☼	06/26/17 10:16	06/26/17 21:43	1
Iron	16000		12	6.1	mg/Kg	☼	06/26/17 10:16	06/26/17 21:43	1
Lead	45		0.29	0.14	mg/Kg	☼	06/27/17 09:39	06/27/17 19:19	1
Magnesium	31000	B	5.9	2.9	mg/Kg	☼	06/27/17 09:39	06/27/17 19:19	1
Manganese	410		0.59	0.085	mg/Kg	☼	06/27/17 09:39	06/27/17 19:19	1
Nickel	24		0.58	0.17	mg/Kg	☼	06/26/17 10:16	06/26/17 21:43	1
Potassium	1400		29	10	mg/Kg	☼	06/26/17 10:16	06/26/17 21:43	1
Selenium	<0.59		0.59	0.34	mg/Kg	☼	06/27/17 09:39	06/27/17 19:19	1
Silver	0.24	J	0.29	0.075	mg/Kg	☼	06/26/17 10:16	06/26/17 21:43	1
Sodium	300		58	8.6	mg/Kg	☼	06/26/17 10:16	06/26/17 21:43	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	06/27/17 09:39	06/27/17 19:19	1
Vanadium	14		0.29	0.069	mg/Kg	☼	06/26/17 10:16	06/26/17 21:43	1
Zinc	95		1.2	0.51	mg/Kg	☼	06/26/17 10:16	06/26/17 21:43	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.47	J	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 02:07	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/23/17 07:08	06/24/17 02:07	1
Boron	0.15	J B	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 02:07	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B03 (0-7)

Lab Sample ID: 500-129768-16

Date Collected: 06/16/17 10:50

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0058		0.0050	0.0020	mg/L		06/23/17 07:08	06/24/17 02:07	1
Chromium	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 02:07	1
Cobalt	0.021	J	0.025	0.010	mg/L		06/23/17 07:08	06/24/17 02:07	1
Iron	<0.40		0.40	0.20	mg/L		06/23/17 07:08	06/24/17 02:07	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/23/17 07:08	06/24/17 02:07	1
Manganese	3.9		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 02:07	1
Nickel	0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 02:07	1
Selenium	<0.050		0.050	0.020	mg/L		06/23/17 07:08	06/24/17 02:07	1
Silver	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 02:07	1
Zinc	0.13	J	0.50	0.020	mg/L		06/23/17 07:08	06/24/17 02:07	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/23/17 07:12	06/25/17 01:34	1
Manganese	0.31		0.025	0.010	mg/L		06/23/17 07:12	06/25/17 01:34	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		06/23/17 07:08	06/23/17 19:05	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/23/17 07:08	06/23/17 19:05	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		06/22/17 10:29	06/23/17 10:35	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.056	B	0.018	0.0061	mg/Kg	☼	06/21/17 08:00	06/21/17 13:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.0		0.2	0.2	SU			06/29/17 16:33	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B02 (0-1)

Lab Sample ID: 500-129768-17

Date Collected: 06/16/17 11:08

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0075	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	06/16/17 17:21	06/22/17 19:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		75 - 131	06/16/17 17:21	06/22/17 19:07	1
Dibromofluoromethane	91		75 - 126	06/16/17 17:21	06/22/17 19:07	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 134	06/16/17 17:21	06/22/17 19:07	1
Toluene-d8 (Surr)	90		75 - 124	06/16/17 17:21	06/22/17 19:07	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	☼	06/25/17 19:26	06/27/17 16:41	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B02 (0-1)

Lab Sample ID: 500-129768-17

Date Collected: 06/16/17 11:08

Matrix: Solid

Date Received: 06/16/17 16:00

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	0.046	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Naphthalene	0.011	J	0.038	0.0059	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
2-Methylnaphthalene	<0.077		0.077	0.0070	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
2,4-Dinitrophenol	<0.77	*	0.77	0.67	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Acenaphthylene	0.036	J	0.038	0.0050	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Acenaphthene	0.031	J	0.038	0.0069	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Fluorene	0.046		0.038	0.0054	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Phenanthrene	0.87		0.038	0.0053	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Anthracene	0.21		0.038	0.0064	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Carbazole	0.096	J	0.19	0.095	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Fluoranthene	2.0		0.038	0.0071	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Pyrene	1.7		0.038	0.0076	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Benzo[a]anthracene	0.95		0.038	0.0051	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B02 (0-1)

Lab Sample ID: 500-129768-17

Date Collected: 06/16/17 11:08

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	1.2		0.038	0.010	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Bis(2-ethylhexyl) phthalate	0.12	J	0.19	0.070	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Benzo[b]fluoranthene	1.7		0.038	0.0082	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Benzo[k]fluoranthene	0.84		0.038	0.011	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Benzo[a]pyrene	1.1		0.038	0.0074	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Indeno[1,2,3-cd]pyrene	0.53		0.038	0.0099	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Dibenz(a,h)anthracene	0.15		0.038	0.0074	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
Benzo[g,h,i]perylene	0.57		0.038	0.012	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	06/25/17 19:26	06/27/17 16:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	92		46 - 133	06/25/17 19:26	06/27/17 16:41	1
Phenol-d5	80		46 - 125	06/25/17 19:26	06/27/17 16:41	1
Nitrobenzene-d5	66		41 - 120	06/25/17 19:26	06/27/17 16:41	1
2-Fluorobiphenyl	71		44 - 121	06/25/17 19:26	06/27/17 16:41	1
2,4,6-Tribromophenol	72		25 - 139	06/25/17 19:26	06/27/17 16:41	1
Terphenyl-d14	90		35 - 160	06/25/17 19:26	06/27/17 16:41	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	06/26/17 10:16	06/26/17 21:47	1
Arsenic	5.8		0.58	0.20	mg/Kg	☼	06/27/17 09:39	06/27/17 19:22	1
Barium	110		0.56	0.064	mg/Kg	☼	06/26/17 10:16	06/26/17 21:47	1
Beryllium	0.52		0.23	0.053	mg/Kg	☼	06/26/17 10:16	06/26/17 21:47	1
Boron	3.1		2.9	0.27	mg/Kg	☼	06/27/17 09:39	06/27/17 19:22	1
Cadmium	0.69	B	0.11	0.020	mg/Kg	☼	06/26/17 10:16	06/26/17 21:47	1
Calcium	8800	B	11	1.9	mg/Kg	☼	06/26/17 10:16	06/26/17 21:47	1
Chromium	22		0.56	0.28	mg/Kg	☼	06/26/17 10:16	06/26/17 21:47	1
Cobalt	9.8		0.28	0.074	mg/Kg	☼	06/26/17 10:16	06/26/17 21:47	1
Copper	21		0.56	0.16	mg/Kg	☼	06/26/17 10:16	06/26/17 21:47	1
Iron	15000		11	5.9	mg/Kg	☼	06/26/17 10:16	06/26/17 21:47	1
Lead	27		0.29	0.13	mg/Kg	☼	06/27/17 09:39	06/27/17 19:22	1
Magnesium	5500	B	5.8	2.9	mg/Kg	☼	06/27/17 09:39	06/27/17 19:22	1
Manganese	510		0.58	0.084	mg/Kg	☼	06/27/17 09:39	06/27/17 19:22	1
Nickel	18		0.56	0.16	mg/Kg	☼	06/26/17 10:16	06/26/17 21:47	1
Potassium	1000		28	10	mg/Kg	☼	06/26/17 10:16	06/26/17 21:47	1
Selenium	0.75		0.58	0.34	mg/Kg	☼	06/27/17 09:39	06/27/17 19:22	1
Silver	<0.28		0.28	0.073	mg/Kg	☼	06/26/17 10:16	06/26/17 21:47	1
Sodium	780		56	8.3	mg/Kg	☼	06/26/17 10:16	06/26/17 21:47	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	06/27/17 09:39	06/27/17 19:22	1
Vanadium	23		0.28	0.066	mg/Kg	☼	06/26/17 10:16	06/26/17 21:47	1
Zinc	94		1.1	0.49	mg/Kg	☼	06/26/17 10:16	06/26/17 21:47	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		06/23/17 07:08	06/24/17 02:13	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/23/17 07:08	06/24/17 02:13	1
Boron	0.097	J B	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 02:13	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B02 (0-1)

Lab Sample ID: 500-129768-17

Date Collected: 06/16/17 11:08

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0026	J	0.0050	0.0020	mg/L	-	06/23/17 07:08	06/24/17 02:13	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:13	1
Cobalt	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:13	1
Iron	<0.40		0.40	0.20	mg/L	-	06/23/17 07:08	06/24/17 02:13	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/23/17 07:08	06/24/17 02:13	1
Manganese	0.29		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:13	1
Nickel	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:13	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/23/17 07:08	06/24/17 02:13	1
Silver	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:13	1
Zinc	0.095	J	0.50	0.020	mg/L	-	06/23/17 07:08	06/24/17 02:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.0		0.025	0.010	mg/L	-	06/23/17 07:12	06/25/17 01:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	06/23/17 07:08	06/23/17 19:09	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/23/17 07:08	06/23/17 19:09	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	06/22/17 10:29	06/23/17 10:39	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.052	B	0.019	0.0064	mg/Kg	☼	06/21/17 08:00	06/21/17 13:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.6		0.2	0.2	SU	-		06/29/17 16:37	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B01 (0-8)

Lab Sample ID: 500-129768-18

Date Collected: 06/16/17 11:50

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 84.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0070	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Carbon disulfide	<0.0040		0.0040	0.00084	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
1,2-Dichloroethane	<0.0040		0.0040	0.0013	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Ethylbenzene	<0.0016		0.0016	0.00077	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
2-Hexanone	<0.0040		0.0040	0.0013	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
1,1,1,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00071	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Vinyl acetate	<0.0040		0.0040	0.0014	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Vinyl chloride	<0.0016		0.0016	0.00071	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1
Xylenes, Total	<0.0032		0.0032	0.00052	mg/Kg	☼	06/16/17 17:21	06/22/17 19:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		75 - 131	06/16/17 17:21	06/22/17 19:32	1
Dibromofluoromethane	91		75 - 126	06/16/17 17:21	06/22/17 19:32	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 134	06/16/17 17:21	06/22/17 19:32	1
Toluene-d8 (Surr)	89		75 - 124	06/16/17 17:21	06/22/17 19:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.083	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B01 (0-8)

Lab Sample ID: 500-129768-18

Date Collected: 06/16/17 11:50

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 84.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.046	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Naphthalene	0.0082	J	0.037	0.0058	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
4-Chloroaniline	<0.75		0.75	0.18	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Hexachlorocyclopentadiene	<0.75		0.75	0.22	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
2-Methylnaphthalene	0.0073	J	0.075	0.0069	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
2,4-Dinitrophenol	<0.75	*	0.75	0.66	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Acenaphthylene	0.015	J	0.037	0.0049	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Acenaphthene	0.041		0.037	0.0067	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
4-Nitrophenol	<0.75		0.75	0.36	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Fluorene	0.055		0.037	0.0053	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Hexachlorobenzene	<0.075		0.075	0.0087	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Phenanthrene	0.75		0.037	0.0052	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Anthracene	0.32		0.037	0.0063	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Fluoranthene	1.7		0.037	0.0069	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Pyrene	1.5		0.037	0.0074	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Benzo[a]anthracene	1.0		0.037	0.0050	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B01 (0-8)

Lab Sample ID: 500-129768-18

Date Collected: 06/16/17 11:50

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 84.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	1.1		0.037	0.010	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Bis(2-ethylhexyl) phthalate	0.097	J	0.19	0.068	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Benzo[b]fluoranthene	1.5		0.037	0.0081	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Benzo[k]fluoranthene	0.59		0.037	0.011	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Benzo[a]pyrene	1.1		0.037	0.0072	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Indeno[1,2,3-cd]pyrene	0.42		0.037	0.0097	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Dibenz(a,h)anthracene	0.13		0.037	0.0072	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
Benzo[g,h,i]perylene	0.40		0.037	0.012	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	06/25/17 19:26	06/27/17 15:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	109		46 - 133	06/25/17 19:26	06/27/17 15:47	1
Phenol-d5	97		46 - 125	06/25/17 19:26	06/27/17 15:47	1
Nitrobenzene-d5	72		41 - 120	06/25/17 19:26	06/27/17 15:47	1
2-Fluorobiphenyl	77		44 - 121	06/25/17 19:26	06/27/17 15:47	1
2,4,6-Tribromophenol	70		25 - 139	06/25/17 19:26	06/27/17 15:47	1
Terphenyl-d14	102		35 - 160	06/25/17 19:26	06/27/17 15:47	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	06/26/17 10:16	06/26/17 21:51	1
Arsenic	5.7		0.57	0.20	mg/Kg	☼	06/27/17 09:39	06/27/17 19:26	1
Barium	47		0.54	0.062	mg/Kg	☼	06/26/17 10:16	06/26/17 21:51	1
Beryllium	0.46		0.22	0.051	mg/Kg	☼	06/26/17 10:16	06/26/17 21:51	1
Boron	5.3		2.9	0.27	mg/Kg	☼	06/27/17 09:39	06/27/17 19:26	1
Cadmium	0.37	B	0.11	0.019	mg/Kg	☼	06/26/17 10:16	06/26/17 21:51	1
Calcium	30000	B	11	1.8	mg/Kg	☼	06/26/17 10:16	06/26/17 21:51	1
Chromium	12		0.54	0.27	mg/Kg	☼	06/26/17 10:16	06/26/17 21:51	1
Cobalt	8.4		0.27	0.071	mg/Kg	☼	06/26/17 10:16	06/26/17 21:51	1
Copper	24		0.54	0.15	mg/Kg	☼	06/26/17 10:16	06/26/17 21:51	1
Iron	15000		11	5.6	mg/Kg	☼	06/26/17 10:16	06/26/17 21:51	1
Lead	57		0.29	0.13	mg/Kg	☼	06/27/17 09:39	06/27/17 19:26	1
Magnesium	27000	B	5.7	2.8	mg/Kg	☼	06/27/17 09:39	06/27/17 19:26	1
Manganese	250		0.57	0.083	mg/Kg	☼	06/27/17 09:39	06/27/17 19:26	1
Nickel	22		0.54	0.16	mg/Kg	☼	06/26/17 10:16	06/26/17 21:51	1
Potassium	1300		27	9.6	mg/Kg	☼	06/26/17 10:16	06/26/17 21:51	1
Selenium	0.50	J	0.57	0.34	mg/Kg	☼	06/27/17 09:39	06/27/17 19:26	1
Silver	<0.27		0.27	0.070	mg/Kg	☼	06/26/17 10:16	06/26/17 21:51	1
Sodium	1400		54	8.0	mg/Kg	☼	06/26/17 10:16	06/26/17 21:51	1
Thallium	<0.57		0.57	0.29	mg/Kg	☼	06/27/17 09:39	06/27/17 19:26	1
Vanadium	16		0.27	0.064	mg/Kg	☼	06/26/17 10:16	06/26/17 21:51	1
Zinc	110		1.1	0.48	mg/Kg	☼	06/26/17 10:16	06/26/17 21:51	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.33	J	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 02:18	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/23/17 07:08	06/24/17 02:18	1
Boron	0.15	J B	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 02:18	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B01 (0-8)

Lab Sample ID: 500-129768-18

Date Collected: 06/16/17 11:50

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 84.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0030	J	0.0050	0.0020	mg/L	-	06/23/17 07:08	06/24/17 02:18	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:18	1
Cobalt	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:18	1
Iron	<0.40		0.40	0.20	mg/L	-	06/23/17 07:08	06/24/17 02:18	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/23/17 07:08	06/24/17 02:18	1
Manganese	0.58		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:18	1
Nickel	0.013	J	0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:18	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/23/17 07:08	06/24/17 02:18	1
Silver	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:18	1
Zinc	0.072	J	0.50	0.020	mg/L	-	06/23/17 07:08	06/24/17 02:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.88		0.025	0.010	mg/L	-	06/23/17 07:12	06/25/17 01:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	06/23/17 07:08	06/23/17 19:13	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/23/17 07:08	06/23/17 19:13	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	06/22/17 10:29	06/23/17 10:41	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.052	B	0.018	0.0060	mg/Kg	☼	06/21/17 08:00	06/21/17 13:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.9		0.2	0.2	SU	-		06/29/17 16:41	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B01 (0-8)D

Lab Sample ID: 500-129768-19

Date Collected: 06/16/17 11:50

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0070	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Carbon disulfide	<0.0040		0.0040	0.00083	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Dibromochloromethane	<0.0016		0.0016	0.00052	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
1,2-Dichloroethane	<0.0040		0.0040	0.0013	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00056	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Ethylbenzene	<0.0016		0.0016	0.00077	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
2-Hexanone	<0.0040		0.0040	0.0013	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Styrene	<0.0016		0.0016	0.00048	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00071	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00056	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Vinyl acetate	<0.0040		0.0040	0.0014	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Vinyl chloride	<0.0016		0.0016	0.00071	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1
Xylenes, Total	<0.0032		0.0032	0.00051	mg/Kg	☼	06/16/17 17:21	06/22/17 19:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		75 - 131	06/16/17 17:21	06/22/17 19:58	1
Dibromofluoromethane	90		75 - 126	06/16/17 17:21	06/22/17 19:58	1
1,2-Dichloroethane-d4 (Surr)	89		70 - 134	06/16/17 17:21	06/22/17 19:58	1
Toluene-d8 (Surr)	90		75 - 124	06/16/17 17:21	06/22/17 19:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.086	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B01 (0-8)D

Lab Sample ID: 500-129768-19

Date Collected: 06/16/17 11:50

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
2,4-Dinitrophenol	<0.78	*	0.78	0.68	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Acenaphthylene	0.011	J	0.038	0.0051	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Phenanthrene	0.070		0.038	0.0054	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Anthracene	0.018	J	0.038	0.0064	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Fluoranthene	0.19		0.038	0.0071	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Pyrene	0.16		0.038	0.0076	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Benzo[a]anthracene	0.10		0.038	0.0052	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B01 (0-8)D

Lab Sample ID: 500-129768-19

Date Collected: 06/16/17 11:50

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.13		0.038	0.010	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Benzo[b]fluoranthene	0.19		0.038	0.0083	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Benzo[k]fluoranthene	0.072		0.038	0.011	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Benzo[a]pyrene	0.12		0.038	0.0074	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Indeno[1,2,3-cd]pyrene	0.062		0.038	0.010	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Dibenz(a,h)anthracene	0.016	J	0.038	0.0074	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
Benzo[g,h,i]perylene	0.061		0.038	0.012	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	06/25/17 19:26	06/27/17 16:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	92		46 - 133	06/25/17 19:26	06/27/17 16:14	1
Phenol-d5	81		46 - 125	06/25/17 19:26	06/27/17 16:14	1
Nitrobenzene-d5	58		41 - 120	06/25/17 19:26	06/27/17 16:14	1
2-Fluorobiphenyl	67		44 - 121	06/25/17 19:26	06/27/17 16:14	1
2,4,6-Tribromophenol	68		25 - 139	06/25/17 19:26	06/27/17 16:14	1
Terphenyl-d14	89		35 - 160	06/25/17 19:26	06/27/17 16:14	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.20	mg/Kg	☼	06/26/17 10:16	06/26/17 21:55	1
Arsenic	6.3		0.55	0.19	mg/Kg	☼	06/27/17 09:39	06/27/17 19:30	1
Barium	54		0.51	0.058	mg/Kg	☼	06/26/17 10:16	06/26/17 21:55	1
Beryllium	0.48		0.20	0.047	mg/Kg	☼	06/26/17 10:16	06/26/17 21:55	1
Boron	4.8		2.7	0.26	mg/Kg	☼	06/27/17 09:39	06/27/17 19:30	1
Cadmium	0.43	B	0.10	0.018	mg/Kg	☼	06/26/17 10:16	06/26/17 21:55	1
Calcium	26000	B	10	1.7	mg/Kg	☼	06/26/17 10:16	06/26/17 21:55	1
Chromium	13		0.51	0.25	mg/Kg	☼	06/26/17 10:16	06/26/17 21:55	1
Cobalt	8.4		0.25	0.066	mg/Kg	☼	06/26/17 10:16	06/26/17 21:55	1
Copper	22		0.51	0.14	mg/Kg	☼	06/26/17 10:16	06/26/17 21:55	1
Iron	14000		10	5.3	mg/Kg	☼	06/26/17 10:16	06/26/17 21:55	1
Lead	51		0.27	0.13	mg/Kg	☼	06/27/17 09:39	06/27/17 19:30	1
Magnesium	13000	B	5.5	2.7	mg/Kg	☼	06/27/17 09:39	06/27/17 19:30	1
Manganese	240		0.55	0.079	mg/Kg	☼	06/27/17 09:39	06/27/17 19:30	1
Nickel	21		0.51	0.15	mg/Kg	☼	06/26/17 10:16	06/26/17 21:55	1
Potassium	1300		25	8.9	mg/Kg	☼	06/26/17 10:16	06/26/17 21:55	1
Selenium	0.47	J	0.55	0.32	mg/Kg	☼	06/27/17 09:39	06/27/17 19:30	1
Silver	<0.25		0.25	0.065	mg/Kg	☼	06/26/17 10:16	06/26/17 21:55	1
Sodium	1400		51	7.5	mg/Kg	☼	06/26/17 10:16	06/26/17 21:55	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	06/27/17 09:39	06/27/17 19:30	1
Vanadium	15		0.25	0.060	mg/Kg	☼	06/26/17 10:16	06/26/17 21:55	1
Zinc	110		1.0	0.44	mg/Kg	☼	06/26/17 10:16	06/26/17 21:55	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.34	J	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 02:32	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/23/17 07:08	06/24/17 02:32	1
Boron	0.15	J B	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 02:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B01 (0-8)D

Lab Sample ID: 500-129768-19

Date Collected: 06/16/17 11:50

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0033	J	0.0050	0.0020	mg/L	-	06/23/17 07:08	06/24/17 02:32	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:32	1
Cobalt	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:32	1
Iron	<0.40		0.40	0.20	mg/L	-	06/23/17 07:08	06/24/17 02:32	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/23/17 07:08	06/24/17 02:32	1
Manganese	0.58		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:32	1
Nickel	0.013	J	0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:32	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/23/17 07:08	06/24/17 02:32	1
Silver	<0.025		0.025	0.010	mg/L	-	06/23/17 07:08	06/24/17 02:32	1
Zinc	0.052	J	0.50	0.020	mg/L	-	06/23/17 07:08	06/24/17 02:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.97		0.025	0.010	mg/L	-	06/23/17 07:12	06/25/17 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	-	06/23/17 07:08	06/23/17 19:26	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/23/17 07:08	06/23/17 19:26	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	-	06/22/17 10:29	06/23/17 10:42	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.035	B	0.018	0.0060	mg/Kg	☼	06/21/17 08:00	06/21/17 13:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.0		0.2	0.2	SU	-		06/29/17 16:49	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B01 (8-16)

Lab Sample ID: 500-129768-20

Date Collected: 06/16/17 11:55

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 90.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.014		0.014	0.0063	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Benzene	<0.0014		0.0014	0.00037	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Bromodichloromethane	<0.0014		0.0014	0.00029	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Bromoform	<0.0014		0.0014	0.00042	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Bromomethane	<0.0036		0.0036	0.0014	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
2-Butanone (MEK)	<0.0036		0.0036	0.0016	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Carbon disulfide	<0.0036		0.0036	0.00075	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Carbon tetrachloride	<0.0014		0.0014	0.00042	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Chlorobenzene	<0.0014		0.0014	0.00053	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Chloroethane	<0.0036		0.0036	0.0011	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Chloroform	<0.0014		0.0014	0.00050	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Chloromethane	<0.0036		0.0036	0.0015	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
cis-1,2-Dichloroethene	<0.0014		0.0014	0.00041	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
cis-1,3-Dichloropropene	<0.0014		0.0014	0.00044	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Dibromochloromethane	<0.0014		0.0014	0.00047	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
1,1-Dichloroethane	<0.0014		0.0014	0.00050	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
1,2-Dichloroethane	<0.0036		0.0036	0.0011	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
1,1-Dichloroethene	<0.0014		0.0014	0.00050	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
1,2-Dichloropropane	<0.0014		0.0014	0.00037	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
1,3-Dichloropropane, Total	<0.0014		0.0014	0.00051	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Ethylbenzene	<0.0014		0.0014	0.00069	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
2-Hexanone	<0.0036		0.0036	0.0011	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Methylene Chloride	<0.0036		0.0036	0.0014	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
4-Methyl-2-pentanone (MIBK)	<0.0036		0.0036	0.0011	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Methyl tert-butyl ether	<0.0014		0.0014	0.00043	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Styrene	<0.0014		0.0014	0.00044	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
1,1,2,2-Tetrachloroethane	<0.0014		0.0014	0.00046	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Tetrachloroethene	<0.0014		0.0014	0.00049	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Toluene	<0.0014		0.0014	0.00037	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
trans-1,2-Dichloroethene	<0.0014		0.0014	0.00064	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
trans-1,3-Dichloropropene	<0.0014		0.0014	0.00051	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
1,1,1-Trichloroethane	<0.0014		0.0014	0.00049	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
1,1,2-Trichloroethane	<0.0014		0.0014	0.00062	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Trichloroethene	<0.0014		0.0014	0.00049	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Vinyl acetate	<0.0036		0.0036	0.0013	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Vinyl chloride	<0.0014		0.0014	0.00064	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1
Xylenes, Total	<0.0029		0.0029	0.00046	mg/Kg	☼	06/16/17 17:21	06/22/17 20:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		75 - 131	06/16/17 17:21	06/22/17 20:23	1
Dibromofluoromethane	93		75 - 126	06/16/17 17:21	06/22/17 20:23	1
1,2-Dichloroethane-d4 (Surr)	87		70 - 134	06/16/17 17:21	06/22/17 20:23	1
Toluene-d8 (Surr)	91		75 - 124	06/16/17 17:21	06/22/17 20:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.080	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B01 (8-16)

Lab Sample ID: 500-129768-20

Date Collected: 06/16/17 11:55

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 90.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Naphthalene	<0.036		0.036	0.0055	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
2-Methylnaphthalene	<0.073		0.073	0.0066	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
2,4-Dinitrophenol	<0.73	*	0.73	0.63	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Acenaphthylene	<0.036		0.036	0.0047	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Acenaphthene	<0.036		0.036	0.0065	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Hexachlorobenzene	<0.073		0.073	0.0083	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Phenanthrene	<0.036		0.036	0.0050	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Anthracene	<0.036		0.036	0.0060	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Carbazole	<0.18		0.18	0.090	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Fluoranthene	<0.036		0.036	0.0067	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Pyrene	<0.036		0.036	0.0072	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Benzo[a]anthracene	<0.036		0.036	0.0048	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B01 (8-16)

Lab Sample ID: 500-129768-20

Date Collected: 06/16/17 11:55

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 90.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.036		0.036	0.0098	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Benzo[b]fluoranthene	<0.036		0.036	0.0078	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Benzo[a]pyrene	<0.036		0.036	0.0070	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0093	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0070	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
Benzo[g,h,i]perylene	<0.036		0.036	0.012	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	06/25/17 19:26	06/26/17 13:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	79		46 - 133	06/25/17 19:26	06/26/17 13:04	1
Phenol-d5	74		46 - 125	06/25/17 19:26	06/26/17 13:04	1
Nitrobenzene-d5	62		41 - 120	06/25/17 19:26	06/26/17 13:04	1
2-Fluorobiphenyl	64		44 - 121	06/25/17 19:26	06/26/17 13:04	1
2,4,6-Tribromophenol	69		25 - 139	06/25/17 19:26	06/26/17 13:04	1
Terphenyl-d14	85		35 - 160	06/25/17 19:26	06/26/17 13:04	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.93	F1	0.93	0.18	mg/Kg	☼	06/26/17 10:16	06/26/17 21:58	1
Arsenic	6.1		0.53	0.18	mg/Kg	☼	06/27/17 09:39	06/27/17 19:41	1
Barium	13		0.46	0.053	mg/Kg	☼	06/26/17 10:16	06/26/17 21:58	1
Beryllium	0.18	J	0.19	0.043	mg/Kg	☼	06/26/17 10:16	06/26/17 21:58	1
Boron	4.7		2.6	0.25	mg/Kg	☼	06/27/17 09:39	06/27/17 19:41	1
Cadmium	0.054	J B	0.093	0.017	mg/Kg	☼	06/26/17 10:16	06/26/17 21:58	1
Calcium	19000	B	11	1.8	mg/Kg	☼	06/27/17 09:39	06/27/17 19:41	1
Chromium	4.4		0.46	0.23	mg/Kg	☼	06/26/17 10:16	06/26/17 21:58	1
Cobalt	4.9		0.23	0.061	mg/Kg	☼	06/26/17 10:16	06/26/17 21:58	1
Copper	11		0.46	0.13	mg/Kg	☼	06/26/17 10:16	06/26/17 21:58	1
Iron	8500		9.3	4.8	mg/Kg	☼	06/26/17 10:16	06/26/17 21:58	1
Lead	48		0.26	0.12	mg/Kg	☼	06/27/17 09:39	06/27/17 19:41	1
Magnesium	12000	B	5.3	2.6	mg/Kg	☼	06/27/17 09:39	06/27/17 19:41	1
Manganese	230		0.53	0.077	mg/Kg	☼	06/27/17 09:39	06/27/17 19:41	1
Nickel	11		0.46	0.13	mg/Kg	☼	06/26/17 10:16	06/26/17 21:58	1
Potassium	1000	F1	23	8.2	mg/Kg	☼	06/26/17 10:16	06/26/17 21:58	1
Selenium	0.71		0.53	0.31	mg/Kg	☼	06/27/17 09:39	06/27/17 19:41	1
Silver	<0.23		0.23	0.060	mg/Kg	☼	06/26/17 10:16	06/26/17 21:58	1
Sodium	590		46	6.8	mg/Kg	☼	06/26/17 10:16	06/26/17 21:58	1
Thallium	<0.53		0.53	0.26	mg/Kg	☼	06/27/17 09:39	06/27/17 19:41	1
Vanadium	6.0		0.23	0.055	mg/Kg	☼	06/26/17 10:16	06/26/17 21:58	1
Zinc	26		0.93	0.41	mg/Kg	☼	06/26/17 10:16	06/26/17 21:58	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.20	J	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 02:38	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/23/17 07:08	06/24/17 02:38	1
Boron	0.10	J B	0.50	0.050	mg/L		06/23/17 07:08	06/24/17 02:38	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Client Sample ID: 2274V-48-B01 (8-16)

Lab Sample ID: 500-129768-20

Date Collected: 06/16/17 11:55

Matrix: Solid

Date Received: 06/16/17 16:00

Percent Solids: 90.8

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		06/23/17 07:08	06/24/17 02:38	1
Chromium	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 02:38	1
Cobalt	0.029		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 02:38	1
Iron	<0.40		0.40	0.20	mg/L		06/23/17 07:08	06/24/17 02:38	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/23/17 07:08	06/24/17 02:38	1
Manganese	1.6		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 02:38	1
Nickel	0.042		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 02:38	1
Selenium	<0.050		0.050	0.020	mg/L		06/23/17 07:08	06/24/17 02:38	1
Silver	<0.025		0.025	0.010	mg/L		06/23/17 07:08	06/24/17 02:38	1
Zinc	<0.50		0.50	0.020	mg/L		06/23/17 07:08	06/24/17 02:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.037		0.025	0.010	mg/L		06/23/17 07:12	06/25/17 01:56	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		06/23/17 07:08	06/23/17 19:30	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/23/17 07:08	06/23/17 19:30	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		06/22/17 10:29	06/23/17 10:44	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.029	B	0.017	0.0057	mg/Kg	☼	06/21/17 08:00	06/21/17 13:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.3		0.2	0.2	SU			06/29/17 16:53	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Qualifiers

GC/MS Semi VOA

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

Metals

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015

TestAmerica Job ID: 500-129768-10

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/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 #: SD0-129768
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 3.4, 4.5

Client		Client Project #		Preservative		Parameter												Preservative Key		
E+E		1009341.00/5.02																1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other		
Project Name		Lab Project #																		
176-001-W015																				
Project Location/State		Lab PM																		
Crestwood, IL		R. Wright																		
Sampler																				
EF, JH																				
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOC	SVOC	Total/ICLT Metals	PH/Percent Solids										
			Date	Time							Comments									
14		2274V-48-B03(0-7)	6/16/17	1050	5	S	X	X	X	X										
17		2274V-48-B02(0-1)	6/16/17	1108	5	S	X	X	X	X										
18		2274V-48-B01(0-8)	6/16/17	1150	5	S	X	X	X	X										
19		2274V-48-B01(0-9)	6/16/17	1150	5	S	X	X	X	X										
20		2274V-48-B01(8-16)	6/16/17	1155	5	S	X	X	X	X										

Turnaround Time Required (Business Days)

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

Requested Due Date _____

Sample Disposal

Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>[Signature]</u> Company: <u>EVE</u> Date: <u>6/16/17</u> Time: <u>1510</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/16/17</u> Time: <u>1510</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/16/17</u> Time: <u>1600</u>	Received By: <u>[Signature]</u> Company: <u>TALME</u> Date: <u>6/16/17</u> Time: <u>1600</u>

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

Matrix Key

WW - Wastewater SE - Sediment
 W - Water SO - Soil
 S - Soil L - Leachate
 SL - Sludge WL - W/pe
 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: 500-129768-10

Login Number: 129768

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	3.4, 4.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





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

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

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

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

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

I. Source Location Information

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

Project Name: FAP 344 (Illinois Route 83) Office Phone Number, if available: _____

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

12723 Cal-Sag Road (ISGS #2274V-49)

City: Crestwood State: IL Zip Code: 60445

County: Cook Township: Worth

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

Latitude: 41.66105 Longitude: -87.75145

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Tyler Petersen

Contact: Tyler Petersen

Email, if available: Tyler.Petersen@illinois.gov

Email, if available: Tyler.Petersen@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: FAP 344 (Illinois Route 83)

Latitude: 41.66105 Longitude: -87.75145

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 2274V-49-B01 and -B02 were sampled within the construction zone adjacent to ISGS #2274V-49 (The Coop Bar and Grill). Refer to PSI Report for ISGS #2274V-49 (The Coop Bar and Grill) including Table 4-4, and Figures 4-2 and 4-6.

- 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 J143379-3.

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

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

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

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

Neil J. Brown
 Printed Name:

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

5/14/2018
 Date:







Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-454-10; WorkOrder #15B

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 or not applicable.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.
- PID = Photoionization detector.
- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

- # = pH is less than 6.25 or greater than 9.0 standard units.
- ** = Headspace reading above background (outside of instrument margin of error).
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Headspace reading exceeds background levels
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #2274V-49 (The Coop Bar and Grill)			Comparison Criteria					
	2274V-49-B01		2274V-49-B02	MACs			TACO		
BORING	2274V-49-B01		2274V-49-B02	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2274V-49-B01 (0-5)	2274V-49-B01 (0-5)D	2274V-49-B02 (0-5)						
MATRIX	Soil	Soil	Soil						
DEPTH (feet)	0-5	0-5	0-5						
pH	8.3	8.3	8.5						
PID > Bkgd.	--	--	--						
VOCs (None Detected)									
SVOCs (mg/kg)									
2-Methylnaphthalene	0.0078 J	ND U	0.019 J	--	--	--	--	--	--
Acenaphthene	ND U	0.0093 J	0.0080 J	570	--	--	4,700	120,000	--
Acenaphthylene	0.0075 J	0.011 J	0.045	--	--	--	--	--	--
Anthracene	0.029 J	0.048	0.036 J	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.19	0.28	0.21	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.24 †	0.32 †	0.32 †	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.39	0.54	0.50	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.13	0.14	0.14	--	--	--	--	--	--
Benzo(k)fluoranthene	0.14	0.19	0.18	9	--	--	9	1,700	--
Chrysene	0.25	0.34	0.27	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.035 J	0.043	0.045	0.09	0.42	0.2	0.42	17	--
Dibenzofuran	ND U	ND U	0.070 J	--	--	--	--	--	--
Di-n-butyl phthalate	ND U	ND U	0.064 J	2,300	--	--	2,300	2,300	--
Fluoranthene	0.41	0.68	0.51	3,100	--	--	3,100	82,000	--
Fluorene	0.0062 J	0.011 J	0.015 J	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.14	0.15	0.13	0.9	1.6	0.9	1.6	170	--
Naphthalene	0.0073 J	0.0069 J	0.013 J	1.8	--	--	170	1.8	--
Phenanthrene	0.14	0.26	0.18	--	--	--	--	--	--
Pyrene	0.31	0.51	0.49	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)									
Arsenic	5.8	6.2	4.7	11.3	13	--	13	61	0.05
Barium	60	73	45	1,500	--	--	5,500	14,000	2
Beryllium	0.62	0.75	0.50	22	--	--	160	410	0.004
Boron	7.3	6.4	7.3	40	--	--	16,000	41,000	2
Cadmium	0.52	0.47	0.48	5.2	--	--	78	200	0.005
Calcium	28,000 J	13,000 J	150,000	--	--	--	--	--	--
Chromium	15	19	12	21	--	--	230	690	0.1
Cobalt	8.6	11	5.9	20	--	--	4,700	12,000	1
Copper	20	24	26	2,900	--	--	2,900	8,200	0.65
Iron	15,000	18,000 †m	12,000	15,000	15,900	--	--	--	5
Lead	76	130 †	59	107	--	--	400	700	0.0075
Magnesium	19,000	9,300	49,000	325,000	--	--	--	730,000	--
Manganese	330	250	230	630	636	--	1,600	4,100	0.15
Mercury	0.038	0.032	0.030	0.89	--	--	10	0.1	0.002
Nickel	21	27	16	100	--	--	1,600	4,100	0.1
Potassium	1,800	2,400	1,400	--	--	--	--	--	--
Selenium	0.82	0.86	0.49 J	1.3	--	--	390	1,000	0.05
Silver	0.21 J	0.28 J	0.17 J	4.4	--	--	390	1,000	0.05
Sodium	440	540	410	--	--	--	--	--	--
Thallium	ND U	0.32 J	ND U	2.6	--	--	6.3	160	0.002
Vanadium	18	23	15	550	--	--	550	1,400	0.049
Zinc	87	110	89	5,100	--	--	23,000	61,000	5
TCLP Metals (mg/L)									
Barium	0.41 J	0.42 J	0.35 J	--	--	--	--	--	2
Cadmium	0.0047 J	0.0047 J	0.0044 J	--	--	--	--	--	0.005
Iron	ND U	ND U	ND U	--	--	--	--	--	5
Lead	ND U	ND U	ND U	--	--	--	--	--	0.0075
Manganese	0.65 L	0.58 L	0.70 L	--	--	--	--	--	0.15
Zinc	0.084 J	0.080 J	0.15 J	--	--	--	--	--	5
SPLP Metals (mg/L)									
Manganese	0.42 L	0.44 L	0.34 L	--	--	--	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 500-143379-3
Client Project/Site: IDOT - IL 83 - WO 015B

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

Attn: Mr. Dean Tiebout



Authorized for release by:
4/18/2018 8:28:18 AM

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

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results through
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www.testamericainc.com

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

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

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

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-3

Job ID: 500-143379-3

Laboratory: TestAmerica Chicago

Narrative

**Job Narrative
500-143379-3**

Receipt

The samples were received on 4/5/2018 2:42 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.8° 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

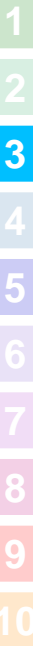
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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 83 - WO 015B

TestAmerica Job ID: 500-143379-3

Client Sample ID: 2274V-49-B01 (0-5)

Lab Sample ID: 500-143379-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0073	J	0.039	0.0061	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.0078	J	0.080	0.0073	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.0075	J	0.039	0.0052	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0062	J	0.039	0.0056	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.14		0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.029	J	0.039	0.0066	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.41		0.039	0.0074	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.31		0.039	0.0079	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	0.39		0.039	0.0086	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.14		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.24		0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.14		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.035	J	0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.13		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.8		0.57	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	60		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.62		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Boron	7.3		2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.52	B	0.11	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	28000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	15		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.6		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	15000	B	11	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	76		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	19000		5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	330		0.57	0.083	mg/Kg	1	☼	6010B	Total/NA
Nickel	21		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	1800		29	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.82		0.57	0.34	mg/Kg	1	☼	6010B	Total/NA
Silver	0.21	J	0.29	0.074	mg/Kg	1	☼	6010B	Total/NA
Sodium	440		57	8.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	87		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.41	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.15	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0047	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.65		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.019	J B	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.084	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.42		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.038		0.020	0.0065	mg/Kg	1	☼	7471B	Total/NA
pH	8.3		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-49-B01 (0-5)D

Lab Sample ID: 500-143379-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0069	J	0.041	0.0063	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 83 - WO 015B

TestAmerica Job ID: 500-143379-3

Client Sample ID: 2274V-49-B01 (0-5)D (Continued)

Lab Sample ID: 500-143379-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.011	J	0.041	0.0054	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.0093	J	0.041	0.0074	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.011	J	0.041	0.0058	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.26		0.041	0.0057	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.048		0.041	0.0068	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.68		0.041	0.0076	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.51		0.041	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.28		0.041	0.0055	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.34		0.041	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.54		0.041	0.0088	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.19		0.041	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.32		0.041	0.0079	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.15		0.041	0.011	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.043		0.041	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.14		0.041	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.2		0.57	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	73		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.75		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	6.4		2.6	0.24	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.47	B	0.11	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	13000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	19		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Copper	24		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	18000	B	11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	130		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	9300		5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	250		0.57	0.083	mg/Kg	1	☼	6010B	Total/NA
Nickel	27		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	2400		29	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.86		0.57	0.34	mg/Kg	1	☼	6010B	Total/NA
Silver	0.28	J	0.29	0.074	mg/Kg	1	☼	6010B	Total/NA
Sodium	540		57	8.4	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.32	J	0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		0.29	0.067	mg/Kg	1	☼	6010B	Total/NA
Zinc	110		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.42	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.15	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0047	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.58		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.020	J B	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.080	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.44		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.032		0.019	0.0065	mg/Kg	1	☼	7471B	Total/NA
pH	8.3		0.2	0.2	SU	1		9045D	Total/NA

Client Sample ID: 2274V-49-B02 (0-5)

Lab Sample ID: 500-143379-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.013	J	0.039	0.0060	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 83 - WO 015B

TestAmerica Job ID: 500-143379-3

Client Sample ID: 2274V-49-B02 (0-5) (Continued)

Lab Sample ID: 500-143379-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.019	J	0.079	0.0072	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.045		0.039	0.0052	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.0080	J	0.039	0.0070	mg/Kg	1	☼	8270D	Total/NA
Dibenzofuran	0.070	J	0.20	0.046	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.015	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.18		0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.036	J	0.039	0.0065	mg/Kg	1	☼	8270D	Total/NA
Di-n-butyl phthalate	0.064	J	0.20	0.060	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.51		0.039	0.0072	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.49		0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.21		0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.27		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.50		0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.18		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.32		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.13		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.045		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.14		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.7		0.60	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	45		0.60	0.068	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.50		0.24	0.056	mg/Kg	1	☼	6010B	Total/NA
Boron	7.3		2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.48	B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Calcium	150000	B	120	20	mg/Kg	10	☼	6010B	Total/NA
Chromium	12		0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.9		0.30	0.078	mg/Kg	1	☼	6010B	Total/NA
Copper	26		0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	12000	B	12	6.2	mg/Kg	1	☼	6010B	Total/NA
Lead	59		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	49000		6.0	3.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	230		0.60	0.087	mg/Kg	1	☼	6010B	Total/NA
Nickel	16		0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	1400		30	11	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.49	J	0.60	0.35	mg/Kg	1	☼	6010B	Total/NA
Silver	0.17	J	0.30	0.077	mg/Kg	1	☼	6010B	Total/NA
Sodium	410		60	8.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.30	0.071	mg/Kg	1	☼	6010B	Total/NA
Zinc	89		1.2	0.53	mg/Kg	1	☼	6010B	Total/NA
Barium	0.35	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J B	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0044	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.70		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.018	J B	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.15	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.34		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.030		0.018	0.0060	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 83 - WO 015B

TestAmerica Job ID: 500-143379-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-143379-5	2274V-49-B01 (0-5)	Solid	04/05/18 10:45	04/05/18 14:42
500-143379-6	2274V-49-B01 (0-5)D	Solid	04/05/18 10:45	04/05/18 14:42
500-143379-7	2274V-49-B02 (0-5)	Solid	04/05/18 11:25	04/05/18 14:42

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-3

Client Sample ID: 2274V-49-B01 (0-5)

Lab Sample ID: 500-143379-5

Date Collected: 04/05/18 10:45

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 81.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0080	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Bromodichloromethane	<0.0018		0.0018	0.00038	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Bromoform	<0.0018		0.0018	0.00054	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
2-Butanone (MEK)	<0.0046		0.0046	0.0021	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Carbon disulfide	<0.0046		0.0046	0.00096	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Carbon tetrachloride	<0.0018		0.0018	0.00054	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Chlorobenzene	<0.0018		0.0018	0.00068	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Chloroform	<0.0018		0.0018	0.00064	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Chloromethane	<0.0046		0.0046	0.0019	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00052	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00056	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
1,1-Dichloroethene	<0.0018		0.0018	0.00064	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
1,2-Dichloropropane	<0.0018		0.0018	0.00048	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00065	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Ethylbenzene	<0.0018		0.0018	0.00088	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Styrene	<0.0018		0.0018	0.00056	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Tetrachloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Toluene	<0.0018		0.0018	0.00047	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00082	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00065	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00079	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Vinyl acetate	<0.0046		0.0046	0.0016	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Vinyl chloride	<0.0018		0.0018	0.00082	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	04/05/18 16:43	04/10/18 13:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		75 - 131	04/05/18 16:43	04/10/18 13:10	1
Dibromofluoromethane	109		75 - 126	04/05/18 16:43	04/10/18 13:10	1
1,2-Dichloroethane-d4 (Surr)	116		70 - 134	04/05/18 16:43	04/10/18 13:10	1
Toluene-d8 (Surr)	109		75 - 124	04/05/18 16:43	04/10/18 13:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-3

Client Sample ID: 2274V-49-B01 (0-5)

Lab Sample ID: 500-143379-5

Date Collected: 04/05/18 10:45

Matrix: Solid

Date Received: 04/05/18 14:42

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	☼	04/06/18 16:32	04/10/18 17:06	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Naphthalene	0.0073	J	0.039	0.0061	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
2-Methylnaphthalene	0.0078	J	0.080	0.0073	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
2-Nitrophenol	<0.39		0.39	0.094	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Acenaphthylene	0.0075	J	0.039	0.0052	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Fluorene	0.0062	J	0.039	0.0056	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Phenanthrene	0.14		0.039	0.0055	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Anthracene	0.029	J	0.039	0.0066	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Fluoranthene	0.41		0.039	0.0074	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Pyrene	0.31		0.039	0.0079	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Benzo[a]anthracene	0.19		0.039	0.0053	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-3

Client Sample ID: 2274V-49-B01 (0-5)

Lab Sample ID: 500-143379-5

Date Collected: 04/05/18 10:45

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 81.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.25		0.039	0.011	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Benzo[b]fluoranthene	0.39		0.039	0.0086	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Benzo[k]fluoranthene	0.14		0.039	0.012	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Benzo[a]pyrene	0.24		0.039	0.0077	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Indeno[1,2,3-cd]pyrene	0.14		0.039	0.010	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Dibenz(a,h)anthracene	0.035	J	0.039	0.0077	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
Benzo[g,h,i]perylene	0.13		0.039	0.013	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	04/06/18 16:32	04/10/18 17:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	105		46 - 133	04/06/18 16:32	04/10/18 17:06	1
Phenol-d5	124		46 - 125	04/06/18 16:32	04/10/18 17:06	1
Nitrobenzene-d5	99		41 - 120	04/06/18 16:32	04/10/18 17:06	1
2-Fluorobiphenyl	110		44 - 121	04/06/18 16:32	04/10/18 17:06	1
2,4,6-Tribromophenol	91		25 - 139	04/06/18 16:32	04/10/18 17:06	1
Terphenyl-d14	113		35 - 160	04/06/18 16:32	04/10/18 17:06	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Arsenic	5.8		0.57	0.20	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Barium	60		0.57	0.065	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Beryllium	0.62		0.23	0.054	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Boron	7.3		2.7	0.25	mg/Kg	☼	04/10/18 07:48	04/11/18 23:31	1
Cadmium	0.52	B	0.11	0.021	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Calcium	28000	B	11	1.9	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Chromium	15		0.57	0.28	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Cobalt	8.6		0.29	0.075	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Copper	20		0.57	0.16	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Iron	15000	B	11	6.0	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Lead	76		0.29	0.13	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Magnesium	19000		5.7	2.8	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Manganese	330		0.57	0.083	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Nickel	21		0.57	0.17	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Potassium	1800		29	10	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Selenium	0.82		0.57	0.34	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Silver	0.21	J	0.29	0.074	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Sodium	440		57	8.5	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Thallium	<0.57		0.57	0.29	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Vanadium	18		0.29	0.068	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1
Zinc	87		1.1	0.50	mg/Kg	☼	04/06/18 07:37	04/06/18 17:21	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.41	J	0.50	0.050	mg/L		04/10/18 06:49	04/11/18 02:45	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/10/18 06:49	04/11/18 02:45	1
Boron	0.15	J B	0.50	0.050	mg/L		04/10/18 06:49	04/11/18 02:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-3

Client Sample ID: 2274V-49-B01 (0-5)

Lab Sample ID: 500-143379-5

Date Collected: 04/05/18 10:45

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 81.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0047	J	0.0050	0.0020	mg/L	-	04/10/18 06:49	04/11/18 02:45	1
Chromium	<0.025		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:45	1
Cobalt	<0.025		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:45	1
Iron	<0.40		0.40	0.20	mg/L	-	04/10/18 06:49	04/11/18 02:45	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	04/10/18 06:49	04/11/18 02:45	1
Manganese	0.65		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:45	1
Nickel	0.019	J B	0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:45	1
Selenium	<0.050		0.050	0.020	mg/L	-	04/10/18 06:49	04/11/18 02:45	1
Silver	<0.025		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:45	1
Zinc	0.084	J	0.50	0.020	mg/L	-	04/10/18 06:49	04/11/18 02:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.42		0.025	0.010	mg/L	-	04/10/18 06:50	04/11/18 03:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	04/10/18 06:49	04/10/18 14:48	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	04/10/18 06:49	04/10/18 14:48	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	04/09/18 11:45	04/10/18 09:18	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.038		0.020	0.0065	mg/Kg	☼	04/10/18 13:30	04/11/18 09:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.3		0.2	0.2	SU	-		04/17/18 14:58	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-3

Client Sample ID: 2274V-49-B01 (0-5)D

Lab Sample ID: 500-143379-6

Date Collected: 04/05/18 10:45

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 79.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0087	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
1,1-Dichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Toluene	<0.0020		0.0020	0.00050	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Vinyl chloride	<0.0020		0.0020	0.00088	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg	☼	04/05/18 16:43	04/10/18 13:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		75 - 131	04/05/18 16:43	04/10/18 13:37	1
Dibromofluoromethane	109		75 - 126	04/05/18 16:43	04/10/18 13:37	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	04/05/18 16:43	04/10/18 13:37	1
Toluene-d8 (Surr)	108		75 - 124	04/05/18 16:43	04/10/18 13:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.091	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.061	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-3

Client Sample ID: 2274V-49-B01 (0-5)D

Lab Sample ID: 500-143379-6

Date Collected: 04/05/18 10:45

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 79.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.047	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Naphthalene	0.0069	J	0.041	0.0063	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
2,4,5-Trichlorophenol	<0.41		0.41	0.093	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
2-Methylnaphthalene	<0.083		0.083	0.0075	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
2,6-Dinitrotoluene	<0.21		0.21	0.080	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Dimethyl phthalate	<0.21		0.21	0.053	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
2,4-Dinitrophenol	<0.83		0.83	0.72	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Acenaphthylene	0.011	J	0.041	0.0054	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Acenaphthene	0.0093	J	0.041	0.0074	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Fluorene	0.011	J	0.041	0.0058	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Hexachlorobenzene	<0.083		0.083	0.0095	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Diethyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Phenanthrene	0.26		0.041	0.0057	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Anthracene	0.048		0.041	0.0068	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Di-n-butyl phthalate	<0.21		0.21	0.062	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Fluoranthene	0.68		0.041	0.0076	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Pyrene	0.51		0.041	0.0081	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Benzo[a]anthracene	0.28		0.041	0.0055	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-3

Client Sample ID: 2274V-49-B01 (0-5)D

Lab Sample ID: 500-143379-6

Date Collected: 04/05/18 10:45

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 79.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.34		0.041	0.011	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Benzo[b]fluoranthene	0.54		0.041	0.0088	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Benzo[k]fluoranthene	0.19		0.041	0.012	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Benzo[a]pyrene	0.32		0.041	0.0079	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Indeno[1,2,3-cd]pyrene	0.15		0.041	0.011	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Dibenz(a,h)anthracene	0.043		0.041	0.0079	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
Benzo[g,h,i]perylene	0.14		0.041	0.013	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	04/06/18 16:32	04/10/18 18:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	115		46 - 133	04/06/18 16:32	04/10/18 18:59	1
Phenol-d5	119		46 - 125	04/06/18 16:32	04/10/18 18:59	1
Nitrobenzene-d5	108		41 - 120	04/06/18 16:32	04/10/18 18:59	1
2-Fluorobiphenyl	109		44 - 121	04/06/18 16:32	04/10/18 18:59	1
2,4,6-Tribromophenol	88		25 - 139	04/06/18 16:32	04/10/18 18:59	1
Terphenyl-d14	111		35 - 160	04/06/18 16:32	04/10/18 18:59	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Arsenic	6.2		0.57	0.20	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Barium	73		0.57	0.065	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Beryllium	0.75		0.23	0.053	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Boron	6.4		2.6	0.24	mg/Kg	☼	04/10/18 07:48	04/11/18 23:35	1
Cadmium	0.47	B	0.11	0.021	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Calcium	13000	B	11	1.9	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Chromium	19		0.57	0.28	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Cobalt	11		0.29	0.075	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Copper	24		0.57	0.16	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Iron	18000	B	11	5.9	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Lead	130		0.29	0.13	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Magnesium	9300		5.7	2.8	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Manganese	250		0.57	0.083	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Nickel	27		0.57	0.17	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Potassium	2400		29	10	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Selenium	0.86		0.57	0.34	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Silver	0.28	J	0.29	0.074	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Sodium	540		57	8.4	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Thallium	0.32	J	0.57	0.28	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Vanadium	23		0.29	0.067	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1
Zinc	110		1.1	0.50	mg/Kg	☼	04/06/18 07:37	04/06/18 17:26	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.42	J	0.50	0.050	mg/L		04/10/18 06:49	04/11/18 02:49	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/10/18 06:49	04/11/18 02:49	1
Boron	0.15	J B	0.50	0.050	mg/L		04/10/18 06:49	04/11/18 02:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-3

Client Sample ID: 2274V-49-B01 (0-5)D

Lab Sample ID: 500-143379-6

Date Collected: 04/05/18 10:45

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 79.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0047	J	0.0050	0.0020	mg/L	-	04/10/18 06:49	04/11/18 02:49	1
Chromium	<0.025		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:49	1
Cobalt	<0.025		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:49	1
Iron	<0.40		0.40	0.20	mg/L	-	04/10/18 06:49	04/11/18 02:49	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	04/10/18 06:49	04/11/18 02:49	1
Manganese	0.58		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:49	1
Nickel	0.020	J B	0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:49	1
Selenium	<0.050		0.050	0.020	mg/L	-	04/10/18 06:49	04/11/18 02:49	1
Silver	<0.025		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:49	1
Zinc	0.080	J	0.50	0.020	mg/L	-	04/10/18 06:49	04/11/18 02:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.44		0.025	0.010	mg/L	-	04/10/18 06:50	04/11/18 03:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	04/10/18 06:49	04/10/18 14:49	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	04/10/18 06:49	04/10/18 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	-	04/09/18 11:45	04/10/18 09:19	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032		0.019	0.0065	mg/Kg	☼	04/10/18 13:30	04/11/18 09:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.3		0.2	0.2	SU	-		04/17/18 15:00	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-3

Client Sample ID: 2274V-49-B02 (0-5)

Lab Sample ID: 500-143379-7

Date Collected: 04/05/18 11:25

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0076	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Bromoform	<0.0017		0.0017	0.00051	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00049	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
1,2-Dichloroethane	<0.0043		0.0043	0.0014	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
1,1-Dichloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
2-Hexanone	<0.0043		0.0043	0.0014	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00075	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Trichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Vinyl chloride	<0.0017		0.0017	0.00077	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	04/05/18 16:43	04/11/18 14:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		75 - 131	04/05/18 16:43	04/11/18 14:50	1
Dibromofluoromethane	114		75 - 126	04/05/18 16:43	04/11/18 14:50	1
1,2-Dichloroethane-d4 (Surr)	120		70 - 134	04/05/18 16:43	04/11/18 14:50	1
Toluene-d8 (Surr)	106		75 - 124	04/05/18 16:43	04/11/18 14:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.087	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-3

Client Sample ID: 2274V-49-B02 (0-5)

Lab Sample ID: 500-143379-7

Date Collected: 04/05/18 11:25

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Naphthalene	0.013	J	0.039	0.0060	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
2-Methylnaphthalene	0.019	J	0.079	0.0072	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Acenaphthylene	0.045		0.039	0.0052	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Acenaphthene	0.0080	J	0.039	0.0070	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Dibenzofuran	0.070	J	0.20	0.046	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Fluorene	0.015	J	0.039	0.0055	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Phenanthrene	0.18		0.039	0.0054	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Anthracene	0.036	J	0.039	0.0065	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Di-n-butyl phthalate	0.064	J	0.20	0.060	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Fluoranthene	0.51		0.039	0.0072	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Pyrene	0.49		0.039	0.0078	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Benzo[a]anthracene	0.21		0.039	0.0053	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-3

Client Sample ID: 2274V-49-B02 (0-5)

Lab Sample ID: 500-143379-7

Date Collected: 04/05/18 11:25

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.27		0.039	0.011	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Benzo[b]fluoranthene	0.50		0.039	0.0084	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Benzo[k]fluoranthene	0.18		0.039	0.012	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Benzo[a]pyrene	0.32		0.039	0.0076	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Indeno[1,2,3-cd]pyrene	0.13		0.039	0.010	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Dibenz(a,h)anthracene	0.045		0.039	0.0076	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
Benzo[g,h,i]perylene	0.14		0.039	0.013	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	04/06/18 16:32	04/12/18 18:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	102		46 - 133	04/06/18 16:32	04/12/18 18:27	1
Phenol-d5	91		46 - 125	04/06/18 16:32	04/12/18 18:27	1
Nitrobenzene-d5	93		41 - 120	04/06/18 16:32	04/12/18 18:27	1
2-Fluorobiphenyl	79		44 - 121	04/06/18 16:32	04/12/18 18:27	1
2,4,6-Tribromophenol	89		25 - 139	04/06/18 16:32	04/12/18 18:27	1
Terphenyl-d14	126		35 - 160	04/06/18 16:32	04/12/18 18:27	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	1
Arsenic	4.7		0.60	0.20	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	1
Barium	45		0.60	0.068	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	1
Beryllium	0.50		0.24	0.056	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	1
Boron	7.3		2.9	0.27	mg/Kg	☼	04/10/18 07:48	04/11/18 23:39	1
Cadmium	0.48	B	0.12	0.022	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	1
Calcium	150000	B	120	20	mg/Kg	☼	04/06/18 07:37	04/09/18 22:46	10
Chromium	12		0.60	0.30	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	1
Cobalt	5.9		0.30	0.078	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	1
Copper	26		0.60	0.17	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	1
Iron	12000	B	12	6.2	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	1
Lead	59		0.30	0.14	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	1
Magnesium	49000		6.0	3.0	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	1
Manganese	230		0.60	0.087	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	1
Nickel	16		0.60	0.17	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	1
Potassium	1400		30	11	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	1
Selenium	0.49	J	0.60	0.35	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	1
Silver	0.17	J	0.30	0.077	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	1
Sodium	410		60	8.9	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	1
Vanadium	15		0.30	0.071	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	1
Zinc	89		1.2	0.53	mg/Kg	☼	04/06/18 07:37	04/06/18 17:31	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		04/10/18 06:49	04/11/18 02:53	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		04/10/18 06:49	04/11/18 02:53	1
Boron	0.11	J B	0.50	0.050	mg/L		04/10/18 06:49	04/11/18 02:53	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-3

Client Sample ID: 2274V-49-B02 (0-5)

Lab Sample ID: 500-143379-7

Date Collected: 04/05/18 11:25

Matrix: Solid

Date Received: 04/05/18 14:42

Percent Solids: 82.3

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	-	04/10/18 06:49	04/11/18 02:53	1
Chromium	<0.025		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:53	1
Cobalt	<0.025		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:53	1
Iron	<0.40		0.40	0.20	mg/L	-	04/10/18 06:49	04/11/18 02:53	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	04/10/18 06:49	04/11/18 02:53	1
Manganese	0.70		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:53	1
Nickel	0.018	J B	0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:53	1
Selenium	<0.050		0.050	0.020	mg/L	-	04/10/18 06:49	04/11/18 02:53	1
Silver	<0.025		0.025	0.010	mg/L	-	04/10/18 06:49	04/11/18 02:53	1
Zinc	0.15	J	0.50	0.020	mg/L	-	04/10/18 06:49	04/11/18 02:53	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	-	04/10/18 06:50	04/11/18 03:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	04/10/18 06:49	04/10/18 14:50	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	04/10/18 06:49	04/10/18 14:50	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	04/09/18 11:45	04/10/18 09:21	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.030		0.018	0.0060	mg/Kg	☼	04/10/18 13:30	04/11/18 09:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.5		0.2	0.2	SU	-		04/17/18 15:01	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-3

Qualifiers

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 83 - WO 015B

TestAmerica Job ID: 500-143379-3

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

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

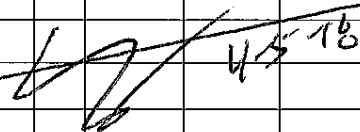
Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

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 #: 500-143379
 Chain of Custody Number: E915B-20
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter												Preservative Key	
EE		1009241-0015-03																1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Project Location/State		Lab Project #		Parameter													
176-001-15D		Cook County, IL		50013464															
Sampler		Lab PM																	
S. Cooper		D. Wright																	
Lab ID	MS/MSD	Sample ID		Sampling		# of Containers	Matrix	VOC	SVOC	Total TAC	Metals	PCU/SPUP	TAC Metals	PM10 Solid					Comments
		Date	Time																
5		2274V-49-301 (0-5)		4-5-18	1045	2	S	X	X	X	X	X	X	X					
6		2274V-49-301 (0-5)D		7-5-18	1045	2	S	X	X	X	X	X	X	X					
7		2274V-49-302 (0-5)		7-5-18	1125	2	S	X	X	X	X	X	X	X					
																			

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other
 Requested Due Date _____

Sample Disposal
 Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>[Signature]</u>	Company <u>[Signature]</u>	Date 4-5-18	Time 1155	Received By <u>[Signature]</u>	Company <u>[Signature]</u>	Date 4/5/18	Time 1155	Lab Courier <u>[Signature]</u>
Relinquished By <u>[Signature]</u>	Company <u>[Signature]</u>	Date 4/5/18	Time 1442	Received By <u>[Signature]</u>	Company <u>[Signature]</u>	Date 4/5/18	Time 1442	Shipped _____
Relinquished By	Company	Date	Time	Received By	Company	Date	Time	Hand Delivered _____

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

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-143379-3

Login Number: 143379

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	