Data Usability Summary Report

Site: Hoosick Falls Landfill
Laboratory: Test America - Buffalo, Amherst, NY
SDGs: 480-133590-1, 480-133608-1, and 480-134080-1
Parameters: Volatile Organic Compounds (VOCs), Semivolatile Organic Compounds (SVOCs), Pesticides, Polychlorinated Biphenyl (PCB) Aroclors
Data Reviewer: Samir A. Naguib/TRC
Peer Reviewer: Elizabeth Denly/TRC
Date: April 26, 2018

Samples Reviewed and Evaluation Summary

SDG: 480-133590-1

3 surface soil samples HFL-SS-104, HFL-SS-105, HFL-SS-106

SDG: 480-133608-1

1 soil sample HFL-MW-104 (9-11)

SDG: 480-134080-1

1 soil sample HFL-MW-105 (22-24)

The above-listed soil samples were collected on April 4 and 11, 2018 and were analyzed for the following parameters:

- VOCs by SW-846 Methods 5035A/8260C
- SVOCs by SW-846 Methods 3550C/8270D
- Pesticides by SW-846 Methods 3550C/8081B
- PCB Aroclors by SW-846 Methods 3550C/8082A

The data validation was performed in accordance with the following USEPA guidance, modified for the SW-846 methodologies utilized:

- USEPA National Functional Guidelines for Organic Superfund Methods Data Review, January 2017

The data were evaluated based on the following parameters:

- Overall Evaluation of Data and Potential Usability Issues
* • Data Completeness
* • Holding Times and Sample Preservation

* • Gas Chromatography/Electron Capture Detector (GC/ECD) Instrument Performance

		Checks
*	•	Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
	•	Initial and Continuing Calibrations
	•	Blanks
	•	Surrogate Recoveries
*	•	Internal Standards
*	•	Laboratory Control Sample (LCS)/ LCS Duplicate (LCSD) Results
	•	Matrix Spike and Matrix Spike Duplicate (MS/MSD) Results
NA	•	Field Duplicate Results
*	•	Percent Solids
	•	Sample Results and Reported Quantitation Limits
*	•	Target Compound Identification

*	-	All criteria were met.
NA	-	Field duplicates were not associated with this sample set.

Overall Evaluation of Data and Potential Usability Issues

All results are usable for project objectives with the exception of 1,4-dioxane in all samples due to low calibration response factors. Qualifications applied to the data as a result of sampling error were not required. Qualifications applied to the data as a result of analytical error are discussed below.

- The nondetect results for 1,4-dioxane in all samples were rejected (R) due to low relative response factors (RRFs) in initial and continuing calibrations. These results are not usable for project objectives which may have a major impact on the data usability.

- Potential uncertainty exists for select VOC and SVOC results that were below the lowest calibration standard and quantitation limit (QL). These results were qualified as estimated (J) in the associated samples. These results can be used for project objectives as estimated values, which may have a minor impact on the data usability.

- The positive results for methylene chloride in samples HFL-SS-104 and HFL-MW-104 (9-11) were qualified as nondetect (U) due to method blank contamination. These results can be used for project objectives as nondetects, which may have a minor impact on the data usability.

- The nondetect result for bis(2-chloroisopropyl)ether in sample HFL-MW-105 (22-24) was qualified as estimated (UJ) due to a continuing calibration nonconformance. This result can be used for project objectives as a nondetect with an estimated QL, which may have a minor impact on the data usability.

- The nondetect results for 1,1,2,2-tetrachloroethane, 1,2-dibromo-3-chloropropane, and 2-butanone in sample HFL-MW-105 (22-24) were qualified as estimated (UJ) due to low MS/MSD recoveries. These results can be used for project objectives as nondetects with estimated QLs, which may have a minor impact on the data usability.

Data Completeness

The data package was a complete Level IV data deliverable package.

Holding Times and Sample Preservation

All holding times and sample preservation method criteria were met for the VOC, SVOC, pesticide and PCB analyses.

GC/ECD Instrument Performance Checks

All criteria were met for the DDT/endrin breakdown checks associated with the pesticide analyses.

GC/MS Tunes

All criteria were met in the VOC and SVOC analyses.

Initial and Continuing Calibrations

VOCs

All percent relative standard deviations (%RSDs) and correlation coefficients were within the acceptance criteria in the initial calibrations (ICs) associated with the samples in this data set.

The following table summarizes the relative response factor (RRF) that did not meet the method acceptance criteria in the IC associated with the samples in this data set.

IC	Compound	RRF	Validation Actions
HP5973F 03/16/18	1,4-Dioxane	0.0076	The nondetect results for 1,4-dioxane was rejected (R) in the associated samples.
Associated samples: HFL-SS-104, HFL-SS-105, HFL-SS-106, HFL-MW-104 (9-11), HFL-MW-105 (22-24)			

The following table summarizes the RRFs that did not meet the method acceptance criteria in the continuing calibration (CC) standards associated with the samples in this data set.

CC	Compound	RRF	%D	Validation Actions
HP5973F 04/05/18 08:49	1,4-Dioxane	0.0087	-	The nondetect results for 1,4-dioxane were rejected (R) in the associated samples.
Associated samples: HFL-SS-104, HFL-SS-105, HFL-SS-106, HFL-MW-104 (9-11)				
HP5973F 04/13/18 10:00	1,4-Dioxane	0.0084	-	The nondetect result for 1,4-dioxane was rejected (R) in the associated sample.
Associated sample: HFL-MW-105 (22-24) - Criteria met				

SVOCs

All %RSDs and RRFs were within the acceptance criteria in the ICs associated with the samples in this data set.

The following table summarizes the correlation coefficient (r^2) that did not meet the method acceptance criteria in the IC associated with the samples in this data set.

IC	Compound	r^2	Validation Actions
HP5973X 03/27/18	Pentachlorophenol	0.9700	No qualifications were required in the associated samples since pentachlorophenol was nondetect.
Associated samples: HFL-SS-104, HFL-SS-105, HFL-SS-106, HFL-MW-104 (9-11)			

All RRFs were within the method acceptance criteria for the target analytes in the CCs associated with the samples in this data set. The following table summarizes the percent difference (%D) that did not meet the method acceptance criteria in the CC standards associated with the samples in this data set.

CC	Compound	%D	Validation Actions
HP5973X 04/16/18 @ 16:32	Bis(2-chloroisopropyl)ether	22.9	The nondetect result for bis(2-chloroisopropyl)ether was qualified as estimated (UJ) in the associated sample.
Associated sample: HFL-MW-105 (22-24)			

Pesticides

All r^2 were within the method acceptance criteria in the initial calibrations associated with the sample in this data set. The following table summarizes the %Ds that did not meet the method acceptance criteria in the continuing calibration standards associated with the samples in this data set.

CCV	Instrument	Compound	%D		Validation Actions
			Col RTX-CLP-I	Col RTX-CLP-II	
04/05/18 @ 15:24	HP6890-25	delta-BHC	-24.7	-	No qualifications were required since the results were reported from column RTX-CLP-II which had acceptable %Ds.
		cis-Chlordane	-21.5	-	
Associated samples: HFL-SS-104, HFL-SS-105, HFL-SS-106, HFL-MW-104 (9-11) - Criteria met					

PCBs

All %RSDs and r^2 were within the method acceptance criteria in the initial calibrations associated

with the samples in this data set. The following table summarizes the %Ds that did not meet the method acceptance criteria in the continuing calibration standards associated with the samples in this data set.

CCV	Instrument	Compound	%D		Validation Actions
			Col ZB-5	Col ZB-35	
04/06/18 @ 08:56	HP6890-7	PCB-1016 Peak 1	-	22.3	No qualification required; results were reported from column ZB-5 which had acceptable average %Ds.
		PCB-1016 Peak 2	-	20.8	
		PCB-1016 Peak 3	-	31.2	
		PCB-1016 Peak 4	-	24.2	
		PCB-1016 Peak 5	-	26.4	
		PCB-1260 Peak 1	-	37.3	
		PCB-1260 Peak 2	-	32.9	
		PCB-1260 Peak 3	-	36.4	
		PCB-1260 Peak 4	-	27.2	
		PCB-1260 Peak 5	-	25.0	
04/06/18 @ 09:12		PCB-1221 Peak 3	-	34.7	
		PCB-1254 Peak 2	-	41.6	
04/06/18 @ 09:44		PCB-1242 Peak 1	-	27.1	
		PCB-1242 Peak 2	-	25.6	
		PCB-1242 Peak 3	-	28.8	
		PCB-1242 Peak 4	-	22.3	
		PCB-1242 Peak 5	-	31.1	
Associated samples: HFL-SS-104, HFL-SS-105, HFL-SS-106, HFL-MW-104 (9-11) - Criteria met					
04/17/18 @ 10:10	HP5890-12	PCB-1232 Peak 1	24.8	-	No qualification was required since the result was nondetect and the %D on the ZB-35 column was acceptable.
		PCB-1232 Peak 2	28.2	-	
		PCB-1232 Peak 3	28.9	-	
		PCB-1232 Peak 5	25.5	-	
04/17/18 @ 10:25		PCB-1242 Peak 3	-	29.2	No qualification was required since the average %D was within the acceptance criteria on both columns.
		PCB-1242 Peak 4	59.2	21.3	
04/17/18 @ 10:40		PCB-1248 Peak 4	-21.5	-	No qualification was required since the average %D was within the acceptance criteria and the %D on the ZB-35 column was acceptable.
Associated sample: HFL-MW-105 (22-24) - Criteria met					

Blanks

All method blanks for SVOCs, pesticides and PCBs were free of contamination.

It should be noted that the laboratory put all method blanks for pesticides through florisil cleanup although only one sample (HFL-SS-105) required florisil cleanup. The method blanks should be treated in the same manner as the samples for proper evaluation. Since pesticides were not detected in any samples in this data set, data usability was not impacted.

VOCs

The following table summarizes the contaminant detected in the method blanks, the concentration detected, and the resulting validation actions.

Blank ID	Compound	Blank Concentration	Validation Actions
MB 480-407277/2-A	Methylene chloride	4.05 J µg/Kg	The positive results for methylene chloride in samples HFL-SS-104 and HFL-MW-104 (9-11) were qualified as nondetect (U) at the QL since the concentrations were <QL.
Associated samples: HFL-SS-104, HFL-SS-105, HFL-SS-106, HFL-MW-104 (9-11)			

Surrogate Recoveries

All criteria were met in the VOC, SVOC, and pesticide analyses.

PCBs

The following table lists the surrogate percent recoveries (%Rs) that were outside of the acceptance limits and the resulting validation actions.

Sample ID	Surrogate	%R ZB-35	%R ZB-5	%R QC Limits	Validation Actions
HFL-MW-104 (9-11)	Tetrachloro-m-xylene	-	168	60-154	No qualification of the data was required due to high %Rs since PCBs were not detected in sample HFL-MW-104 (9-11).
	Decachlorobiphenyl	-	-	65-174	

Internal Standards

All criteria were met in the VOC, SVOC, pesticide and PCB analyses.

LCS/LCSD Results

The LCS/LCSD %Rs and/or relative percent differences (RPDs) were within the laboratory acceptance criteria in the VOC, SVOC pesticide, and PCB analyses.

It should be noted that the laboratory put all LCSs for pesticides through florisil cleanup although only one sample (HFL-SS-105) required florisil cleanup. The LCSs should be treated in the same manner as the samples for proper evaluation. Since pesticides were not detected in any samples in this data set, data usability was not impacted.

MS/MSD Results

MS/MSD analyses were performed on sample HFL-SS-103 for SVOCs and PCBs; sample HFL-

MW-105 (22-24) for VOCs, SVOCs, pesticides and PCBs; and sample HFL-SS-104 for pesticides. All %Rs and RPDs met the laboratory acceptance criteria in the SVOC, pesticide, and PCB MS/MSD analyses.

The following table summarizes the %Rs that were outside of the acceptance criteria in the VOC analyses.

MS/MSD Sample ID	Compound	MS %R	MSD %R	RPD	QC Limits %R/RPD	Validation Action
HFL-MW-105 (22-24)	1,1,2,2-Tetrachloroethane	78	-	-	80-120/30	The nondetect results for 1,1,2,2-tetrachloroethene, 1,2-dibromo-3-chloropropane, and 2-butanone in sample HFL-MW-105 (22-24) were qualified as estimated (UJ) due to low MS/MSD recoveries.
	1,2-Dibromo-3-Chloropropane	61	-	-	63-124/30	
	2-Butanone	66	69	-	70-134/30	
	1,4-Dioxane	63	-	-	64-124/30	The nondetect result for 1,4-dioxane was previously rejected (R) in sample HFL-MW-105 (22-24) due to calibration nonconformances; further qualification of the data was not required.

-Criteria met

Field Duplicate Results

No field duplicate pairs were submitted with this sample set.

Percent Solids

The percent solids for the soil samples in this data set were >30%; thus, no qualification was required.

Sample Results and Reported Quantitation Limits

Select VOC and SVOC results were reported below the lowest calibration standard level and QL. These results were qualified as estimated (J) in the associated samples by the laboratory.

Sample calculations for all parameters were spot-checked; there were no errors noted. The following table summarizes dilutions performed on samples in this data set; QLs were elevated accordingly.

Parameter	Sample ID	Dilution	Reason for Dilution
SVOCs	HFL-SS-106	5-fold	A 5-fold dilution was performed due to the color of the sample extract.

Parameter	Sample ID	Dilution	Reason for Dilution
	HFL-SS-105		

For PCB analyses, the laboratory used the medium/high concentration extraction procedure and thus used a 2-gram rather than a 30-gram aliquot which is typically used for a low concentration extraction procedure. The QLs were elevated accordingly, but there was no impact on meeting the project action limits.

It should be noted that sample HFL-MW-105 (22-24) was decanted prior to extraction for SVOCs.

Target Compound Identification

All criteria were met for the VOC, SVOC, pesticide, and PCB analyses.

QUALIFIED FORM Is

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-104 | Lab Sample ID: 480-133590-1

Matrix: Solid | Lab File ID: F1497.D

Analysis Method: 8260C | Date Collected: 04/04/2018 08:15

Sample wt/vol: 8.236(g) | Date Analyzed: 04/05/2018 12:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 21.1 | Level: (low/med) Low

Analysis Batch No.: 407281 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		3.8	0.28
79-34-5	1,1,2,2-Tetrachloroethane	ND		3.8	0.62
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.8	0.88
79-00-5	1,1,2-Trichloroethane	ND		3.8	0.50
75-34-3	1,1-Dichloroethane	ND		3.8	0.47
75-35-4	1,1-Dichloroethene	ND		3.8	0.47
120-82-1	1,2,4-Trichlorobenzene	ND		3.8	0.23
96-12-8	1,2-Dibromo-3-Chloropropane	ND		3.8	1.9
106-93-4	1,2-Dibromoethane	ND		3.8	0.49
95-50-1	1,2-Dichlorobenzene	ND		3.8	0.30
107-06-2	1,2-Dichloroethane	ND		3.8	0.19
78-87-5	1,2-Dichloropropane	ND		3.8	1.9
541-73-1	1,3-Dichlorobenzene	ND		3.8	0.20
106-46-7	1,4-Dichlorobenzene	ND		3.8	0.54
78-93-3	2-Butanone (MEK)	ND		19	1.4
591-78-6	2-Hexanone	ND		19	1.9
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		19	1.3
67-64-1	Acetone	3.2	J	19	3.2
71-43-2	Benzene	ND		3.8	0.19
75-27-4	Bromodichloromethane	ND		3.8	0.52
75-25-2	Bromoform	ND		3.8	1.9
74-83-9	Bromomethane	ND		3.8	0.35
75-15-0	Carbon disulfide	ND		3.8	1.9
56-23-5	Carbon tetrachloride	ND		3.8	0.37
108-90-7	Chlorobenzene	ND		3.8	0.51
75-00-3	Chloroethane	ND		3.8	0.87
67-66-3	Chloroform	ND		3.8	0.24
74-87-3	Chloromethane	ND		3.8	0.23
156-59-2	cis-1,2-Dichloroethene	ND		3.8	0.49
10061-01-5	cis-1,3-Dichloropropene	ND		3.8	0.55
110-82-7	Cyclohexane	ND		3.8	0.54
124-48-1	Dibromochloromethane	ND		3.8	0.49
75-71-8	Dichlorodifluoromethane	ND		3.8	0.32
100-41-4	Ethylbenzene	ND		3.8	0.27
98-82-8	Isopropylbenzene	ND		3.8	0.58

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-104 | Lab Sample ID: 480-133590-1

Matrix: Solid | Lab File ID: F1497.D

Analysis Method: 8260C | Date Collected: 04/04/2018 08:15

Sample wt/vol: 8.236(g) | Date Analyzed: 04/05/2018 12:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 21.1 | Level: (low/med) Low

Analysis Batch No.: 407281 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		19	2.3
1634-04-4	Methyl tert-butyl ether	ND		3.8	0.38
108-87-2	Methylcyclohexane	ND		3.8	0.59
75-09-2	Methylene Chloride	~~2.1~~ ~~J B~~ U		3.8	1.8
100-42-5	Styrene	ND		3.8	0.19
127-18-4	Tetrachloroethene	ND		3.8	0.52
108-88-3	Toluene	ND		3.8	0.29
156-60-5	trans-1,2-Dichloroethene	ND		3.8	0.40
10061-02-6	trans-1,3-Dichloropropene	ND		3.8	1.7
79-01-6	Trichloroethene	ND		3.8	0.85
75-69-4	Trichlorofluoromethane	ND		3.8	0.36
75-01-4	Vinyl chloride	ND		3.8	0.47
1330-20-7	Xylenes, Total	ND		7.7	0.65
123-91-1	1,4-Dioxane	~~ND~~ R		~~77~~	~~17~~

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		64-126
460-00-4	4-Bromofluorobenzene (Surr)	99		72-126
1868-53-7	Dibromofluoromethane (Surr)	100		60-140
2037-26-5	Toluene-d8 (Surr)	100		71-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-106 | Lab Sample ID: 480-133590-2

Matrix: Solid | Lab File ID: F1498.D

Analysis Method: 8260C | Date Collected: 04/04/2018 08:30

Sample wt/vol: 6.975(g) | Date Analyzed: 04/05/2018 12:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 21.4 | Level: (low/med) Low

Analysis Batch No.: 407281 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		4.6	0.33
79-34-5	1,1,2,2-Tetrachloroethane	ND		4.6	0.74
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.6	1.0
79-00-5	1,1,2-Trichloroethane	ND		4.6	0.59
75-34-3	1,1-Dichloroethane	ND		4.6	0.56
75-35-4	1,1-Dichloroethene	ND		4.6	0.56
120-82-1	1,2,4-Trichlorobenzene	ND		4.6	0.28
96-12-8	1,2-Dibromo-3-Chloropropane	ND		4.6	2.3
106-93-4	1,2-Dibromoethane	ND		4.6	0.59
95-50-1	1,2-Dichlorobenzene	ND		4.6	0.36
107-06-2	1,2-Dichloroethane	ND		4.6	0.23
78-87-5	1,2-Dichloropropane	ND		4.6	2.3
541-73-1	1,3-Dichlorobenzene	ND		4.6	0.23
106-46-7	1,4-Dichlorobenzene	ND		4.6	0.64
78-93-3	2-Butanone (MEK)	ND		23	1.7
591-78-6	2-Hexanone	ND		23	2.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		23	1.5
67-64-1	Acetone	ND		23	3.8
71-43-2	Benzene	ND		4.6	0.22
75-27-4	Bromodichloromethane	ND		4.6	0.61
75-25-2	Bromoform	ND		4.6	2.3
74-83-9	Bromomethane	ND		4.6	0.41
75-15-0	Carbon disulfide	ND		4.6	2.3
56-23-5	Carbon tetrachloride	ND		4.6	0.44
108-90-7	Chlorobenzene	ND		4.6	0.60
75-00-3	Chloroethane	ND		4.6	1.0
67-66-3	Chloroform	ND		4.6	0.28
74-87-3	Chloromethane	ND		4.6	0.28
156-59-2	cis-1,2-Dichloroethene	ND		4.6	0.58
10061-01-5	cis-1,3-Dichloropropene	ND		4.6	0.66
110-82-7	Cyclohexane	ND		4.6	0.64
124-48-1	Dibromochloromethane	ND		4.6	0.58
75-71-8	Dichlorodifluoromethane	ND		4.6	0.38
100-41-4	Ethylbenzene	ND		4.6	0.31
98-82-8	Isopropylbenzene	ND		4.6	0.69

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-106 | Lab Sample ID: 480-133590-2

Matrix: Solid | Lab File ID: F1498.D

Analysis Method: 8260C | Date Collected: 04/04/2018 08:30

Sample wt/vol: 6.975(g) | Date Analyzed: 04/05/2018 12:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 21.4 | Level: (low/med) Low

Analysis Batch No.: 407281 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		23	2.8
1634-04-4	Methyl tert-butyl ether	ND		4.6	0.45
108-87-2	Methylcyclohexane	ND		4.6	0.69
75-09-2	Methylene Chloride	ND		4.6	2.1
100-42-5	Styrene	ND		4.6	0.23
127-18-4	Tetrachloroethene	ND		4.6	0.61
108-88-3	Toluene	ND		4.6	0.34
156-60-5	trans-1,2-Dichloroethene	ND		4.6	0.47
10061-02-6	trans-1,3-Dichloropropene	ND		4.6	2.0
79-01-6	Trichloroethene	ND		4.6	1.0
75-69-4	Trichlorofluoromethane	ND		4.6	0.43
75-01-4	Vinyl chloride	ND		4.6	0.56
1330-20-7	Xylenes, Total	ND		9.1	0.77
123-91-1	1,4-Dioxane	~~ND~~ R		~~91~~	~~20~~

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		64-126
460-00-4	4-Bromofluorobenzene (Surr)	92		72-126
1868-53-7	Dibromofluoromethane (Surr)	103		60-140
2037-26-5	Toluene-d8 (Surr)	108		71-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-105 | Lab Sample ID: 480-133590-3

Matrix: Solid | Lab File ID: F1499.D

Analysis Method: 8260C | Date Collected: 04/04/2018 08:45

Sample wt/vol: 6.037(g) | Date Analyzed: 04/05/2018 12:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 13.3 | Level: (low/med) Low

Analysis Batch No.: 407281 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		4.8	0.35
79-34-5	1,1,2,2-Tetrachloroethane	ND		4.8	0.78
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.8	1.1
79-00-5	1,1,2-Trichloroethane	ND		4.8	0.62
75-34-3	1,1-Dichloroethane	ND		4.8	0.58
75-35-4	1,1-Dichloroethene	ND		4.8	0.58
120-82-1	1,2,4-Trichlorobenzene	ND		4.8	0.29
96-12-8	1,2-Dibromo-3-Chloropropane	ND		4.8	2.4
106-93-4	1,2-Dibromoethane	ND		4.8	0.61
95-50-1	1,2-Dichlorobenzene	ND		4.8	0.37
107-06-2	1,2-Dichloroethane	ND		4.8	0.24
78-87-5	1,2-Dichloropropane	ND		4.8	2.4
541-73-1	1,3-Dichlorobenzene	ND		4.8	0.25
106-46-7	1,4-Dichlorobenzene	ND		4.8	0.67
78-93-3	2-Butanone (MEK)	ND		24	1.7
591-78-6	2-Hexanone	ND		24	2.4
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		24	1.6
67-64-1	Acetone	ND		24	4.0
71-43-2	Benzene	ND		4.8	0.23
75-27-4	Bromodichloromethane	ND		4.8	0.64
75-25-2	Bromoform	ND		4.8	2.4
74-83-9	Bromomethane	ND		4.8	0.43
75-15-0	Carbon disulfide	ND		4.8	2.4
56-23-5	Carbon tetrachloride	ND		4.8	0.46
108-90-7	Chlorobenzene	ND		4.8	0.63
75-00-3	Chloroethane	ND		4.8	1.1
67-66-3	Chloroform	ND		4.8	0.30
74-87-3	Chloromethane	ND		4.8	0.29
156-59-2	cis-1,2-Dichloroethene	ND		4.8	0.61
10061-01-5	cis-1,3-Dichloropropene	ND		4.8	0.69
110-82-7	Cyclohexane	ND		4.8	0.67
124-48-1	Dibromochloromethane	ND		4.8	0.61
75-71-8	Dichlorodifluoromethane	ND		4.8	0.39
100-41-4	Ethylbenzene	ND		4.8	0.33
98-82-8	Isopropylbenzene	ND		4.8	0.72

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-105 | Lab Sample ID: 480-133590-3

Matrix: Solid | Lab File ID: F1499.D

Analysis Method: 8260C | Date Collected: 04/04/2018 08:45

Sample wt/vol: 6.037(g) | Date Analyzed: 04/05/2018 12:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 13.3 | Level: (low/med) Low

Analysis Batch No.: 407281 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		24	2.9
1634-04-4	Methyl tert-butyl ether	ND		4.8	0.47
108-87-2	Methylcyclohexane	ND		4.8	0.73
75-09-2	Methylene Chloride	ND		4.8	2.2
100-42-5	Styrene	ND		4.8	0.24
127-18-4	Tetrachloroethene	ND		4.8	0.64
108-88-3	Toluene	ND		4.8	0.36
156-60-5	trans-1,2-Dichloroethene	ND		4.8	0.49
10061-02-6	trans-1,3-Dichloropropene	ND		4.8	2.1
79-01-6	Trichloroethene	ND		4.8	1.1
75-69-4	Trichlorofluoromethane	ND		4.8	0.45
75-01-4	Vinyl chloride	ND		4.8	0.58
1330-20-7	Xylenes, Total	ND		9.6	0.80
123-91-1	1,4-Dioxane	ND	R ✓	96	21

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		64-126
460-00-4	4-Bromofluorobenzene (Surr)	92		72-126
1868-53-7	Dibromofluoromethane (Surr)	103		60-140
2037-26-5	Toluene-d8 (Surr)	105		71-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133608-1

SDG No.:

Client Sample ID: HFL-MW-104 (9-11) | Lab Sample ID: 480-133608-1

Matrix: Solid | Lab File ID: F1500.D

Analysis Method: 8260C | Date Collected: 04/04/2018 14:00

Sample wt/vol: 7.254(g) | Date Analyzed: 04/05/2018 13:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 30.2 | Level: (low/med) Low

Analysis Batch No.: 407281 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		4.9	0.36
79-34-5	1,1,2,2-Tetrachloroethane	ND		4.9	0.80
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.9	1.1
79-00-5	1,1,2-Trichloroethane	ND		4.9	0.64
75-34-3	1,1-Dichloroethane	ND		4.9	0.60
75-35-4	1,1-Dichloroethene	ND		4.9	0.60
120-82-1	1,2,4-Trichlorobenzene	ND		4.9	0.30
96-12-8	1,2-Dibromo-3-Chloropropane	ND		4.9	2.5
106-93-4	1,2-Dibromoethane	ND		4.9	0.63
95-50-1	1,2-Dichlorobenzene	ND		4.9	0.39
107-06-2	1,2-Dichloroethane	ND		4.9	0.25
78-87-5	1,2-Dichloropropane	ND		4.9	2.5
541-73-1	1,3-Dichlorobenzene	ND		4.9	0.25
106-46-7	1,4-Dichlorobenzene	ND		4.9	0.69
78-93-3	2-Butanone (MEK)	ND		25	1.8
591-78-6	2-Hexanone	ND		25	2.5
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		25	1.6
67-64-1	Acetone	ND		25	4.2
71-43-2	Benzene	ND		4.9	0.24
75-27-4	Bromodichloromethane	ND		4.9	0.66
75-25-2	Bromoform	ND		4.9	2.5
74-83-9	Bromomethane	ND		4.9	0.44
75-15-0	Carbon disulfide	ND		4.9	2.5
56-23-5	Carbon tetrachloride	ND		4.9	0.48
108-90-7	Chlorobenzene	ND		4.9	0.65
75-00-3	Chloroethane	ND		4.9	1.1
67-66-3	Chloroform	ND		4.9	0.31
74-87-3	Chloromethane	ND		4.9	0.30
156-59-2	cis-1,2-Dichloroethene	ND		4.9	0.63
10061-01-5	cis-1,3-Dichloropropene	ND		4.9	0.71
110-82-7	Cyclohexane	ND		4.9	0.69
124-48-1	Dibromochloromethane	ND		4.9	0.63
75-71-8	Dichlorodifluoromethane	ND		4.9	0.41
100-41-4	Ethylbenzene	ND		4.9	0.34
98-82-8	Isopropylbenzene	ND		4.9	0.74

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133608-1

SDG No.:

Client Sample ID: HFL-MW-104 (9-11) | Lab Sample ID: 480-133608-1

Matrix: Solid | Lab File ID: F1500.D

Analysis Method: 8260C | Date Collected: 04/04/2018 14:00

Sample wt/vol: 7.254(g) | Date Analyzed: 04/05/2018 13:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 30.2 | Level: (low/med) Low

Analysis Batch No.: 407281 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		25	3.0
1634-04-4	Methyl tert-butyl ether	ND		4.9	0.48
108-87-2	Methylcyclohexane	ND		4.9	0.75
75-09-2	Methylene Chloride	4.5	B	4.9	2.3
100-42-5	Styrene	ND		4.9	0.25
127-18-4	Tetrachloroethene	ND		4.9	0.66
108-88-3	Toluene	ND		4.9	0.37
156-60-5	trans-1,2-Dichloroethene	ND		4.9	0.51
10061-02-6	trans-1,3-Dichloropropene	ND		4.9	2.2
79-01-6	Trichloroethene	ND		4.9	1.1
75-69-4	Trichlorofluoromethane	ND		4.9	0.47
75-01-4	Vinyl chloride	ND		4.9	0.60
1330-20-7	Xylenes, Total	ND		9.9	0.83
123-91-1	1,4-Dioxane	ND		99	22

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		64-126
460-00-4	4-Bromofluorobenzene (Surr)	97		72-126
1868-53-7	Dibromofluoromethane (Surr)	101		60-140
2037-26-5	Toluene-d8 (Surr)	102		71-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134080-1

SDG No.:

Client Sample ID: HFL-MW-105(22-24) | Lab Sample ID: 480-134080-1

Matrix: Solid | Lab File ID: F1701.D

Analysis Method: 8260C | Date Collected: 04/11/2018 16:45

Sample wt/vol: 6.738(g) | Date Analyzed: 04/13/2018 12:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 20.7 | Level: (low/med) Low

Analysis Batch No.: 408660 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		4.7	0.34
79-34-5	1,1,2,2-Tetrachloroethane	ND	F1 UJ ✓	4.7	0.76
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.7	1.1
79-00-5	1,1,2-Trichloroethane	ND		4.7	0.61
75-34-3	1,1-Dichloroethane	ND		4.7	0.57
75-35-4	1,1-Dichloroethene	ND		4.7	0.57
120-82-1	1,2,4-Trichlorobenzene	ND		4.7	0.28
96-12-8	1,2-Dibromo-3-Chloropropane	ND	F1 UJ ✓	4.7	2.3
106-93-4	1,2-Dibromoethane	ND		4.7	0.60
95-50-1	1,2-Dichlorobenzene	ND		4.7	0.37
107-06-2	1,2-Dichloroethane	ND		4.7	0.23
78-87-5	1,2-Dichloropropane	ND		4.7	2.3
541-73-1	1,3-Dichlorobenzene	ND		4.7	0.24
106-46-7	1,4-Dichlorobenzene	ND		4.7	0.66
78-93-3	2-Butanone (MEK)	ND	F1 UJ ✓	23	1.7
591-78-6	2-Hexanone	ND		23	2.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		23	1.5
67-64-1	Acetone	ND		23	3.9
71-43-2	Benzene	ND		4.7	0.23
75-27-4	Bromodichloromethane	ND		4.7	0.63
75-25-2	Bromoform	ND		4.7	2.3
74-83-9	Bromomethane	ND		4.7	0.42
75-15-0	Carbon disulfide	ND		4.7	2.3
56-23-5	Carbon tetrachloride	ND		4.7	0.45
108-90-7	Chlorobenzene	ND		4.7	0.62
75-00-3	Chloroethane	ND		4.7	1.1
67-66-3	Chloroform	ND		4.7	0.29
74-87-3	Chloromethane	ND		4.7	0.28
156-59-2	cis-1,2-Dichloroethene	ND		4.7	0.60
10061-01-5	cis-1,3-Dichloropropene	ND		4.7	0.67
110-82-7	Cyclohexane	ND		4.7	0.66
124-48-1	Dibromochloromethane	ND		4.7	0.60
75-71-8	Dichlorodifluoromethane	ND		4.7	0.39
100-41-4	Ethylbenzene	ND		4.7	0.32
98-82-8	Isopropylbenzene	ND		4.7	0.71

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134080-1

SDG No.:

Client Sample ID: HFL-MW-105(22-24) | Lab Sample ID: 480-134080-1

Matrix: Solid | Lab File ID: F1701.D

Analysis Method: 8260C | Date Collected: 04/11/2018 16:45

Sample wt/vol: 6.738(g) | Date Analyzed: 04/13/2018 12:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 20.7 | Level: (low/med) Low

Analysis Batch No.: 408660 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		23	2.8
1634-04-4	Methyl tert-butyl ether	ND		4.7	0.46
108-87-2	Methylcyclohexane	ND		4.7	0.71
75-09-2	Methylene Chloride	ND		4.7	2.2
100-42-5	Styrene	ND		4.7	0.23
127-18-4	Tetrachloroethene	ND		4.7	0.63
108-88-3	Toluene	ND		4.7	0.35
156-60-5	trans-1,2-Dichloroethene	ND		4.7	0.48
10061-02-6	trans-1,3-Dichloropropene	ND		4.7	2.1
79-01-6	Trichloroethene	ND		4.7	1.0
75-69-4	Trichlorofluoromethane	ND		4.7	0.44
75-01-4	Vinyl chloride	ND		4.7	0.57
1330-20-7	Xylenes, Total	ND		9.4	0.79
123-91-1	1,4-Dioxane	ND	F1 R ✓	94	20

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		64-126
460-00-4	4-Bromofluorobenzene (Surr)	101		72-126
1868-53-7	Dibromofluoromethane (Surr)	104		60-140
2037-26-5	Toluene-d8 (Surr)	103		71-125

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-104 | Lab Sample ID: 480-133590-1

Matrix: Solid | Lab File ID: X210403.D

Analysis Method: 8270D | Date Collected: 04/04/2018 08:15

Extract. Method: 3550C | Date Extracted: 04/05/2018 06:39

Sample wt/vol: 30.47(g) | Date Analyzed: 04/06/2018 02:50

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407454 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	Biphenyl	ND		210	31
108-60-1	bis (2-chloroisopropyl) ether	ND		210	42
95-95-4	2,4,5-Trichlorophenol	ND		210	57
88-06-2	2,4,6-Trichlorophenol	ND		210	42
120-83-2	2,4-Dichlorophenol	ND		210	22
105-67-9	2,4-Dimethylphenol	ND		210	51
51-28-5	2,4-Dinitrophenol	ND		2100	980
121-14-2	2,4-Dinitrotoluene	ND		210	44
606-20-2	2,6-Dinitrotoluene	ND		210	25
91-58-7	2-Chloronaphthalene	ND		210	35
95-57-8	2-Chlorophenol	ND		210	39
95-48-7	2-Methylphenol	ND		210	25
91-57-6	2-Methylnaphthalene	ND		210	42
88-74-4	2-Nitroaniline	ND		410	31
88-75-5	2-Nitrophenol	ND		210	60
91-94-1	3,3'-Dichlorobenzidine	ND		410	250
99-09-2	3-Nitroaniline	ND		410	59
534-52-1	4,6-Dinitro-2-methylphenol	ND		410	210
101-55-3	4-Bromophenyl phenyl ether	ND		210	30
59-50-7	4-Chloro-3-methylphenol	ND		210	52
106-47-8	4-Chloroaniline	ND		210	52
7005-72-3	4-Chlorophenyl phenyl ether	ND		210	26
106-44-5	4-Methylphenol	ND		410	25
100-01-6	4-Nitroaniline	ND		410	110
100-02-7	4-Nitrophenol	ND		410	150
83-32-9	Acenaphthene	ND		210	31
208-96-8	Acenaphthylene	ND		210	27
98-86-2	Acetophenone	ND		210	29
120-12-7	Anthracene	ND		210	52
1912-24-9	Atrazine	ND		210	74
100-52-7	Benzaldehyde	ND		210	170
56-55-3	Benzo[a]anthracene	ND		210	21
50-32-8	Benzo[a]pyrene	ND		210	31
205-99-2	Benzo[b]fluoranthene	ND		210	34

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-104 | Lab Sample ID: 480-133590-1

Matrix: Solid | Lab File ID: X210403.D

Analysis Method: 8270D | Date Collected: 04/04/2018 08:15

Extract. Method: 3550C | Date Extracted: 04/05/2018 06:39

Sample wt/vol: 30.47(g) | Date Analyzed: 04/06/2018 02:50

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407454 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
191-24-2	Benzo[g,h,i]perylene	ND		210	22
207-08-9	Benzo[k]fluoranthene	ND		210	27
111-91-1	Bis(2-chloroethoxy)methane	ND		210	45
111-44-4	Bis(2-chloroethyl)ether	ND		210	27
117-81-7	Bis(2-ethylhexyl) phthalate	ND		210	72
85-68-7	Butyl benzyl phthalate	ND		210	35
105-60-2	Caprolactam	ND		210	64
86-74-8	Carbazole	ND		210	25
218-01-9	Chrysene	ND		210	47
53-70-3	Dibenz(a,h)anthracene	ND		210	37
84-74-2	Di-n-butyl phthalate	ND		210	36
117-84-0	Di-n-octyl phthalate	ND		210	25
132-64-9	Dibenzofuran	ND		210	25
84-66-2	Diethyl phthalate	ND		210	27
131-11-3	Dimethyl phthalate	ND		210	25
206-44-0	Fluoranthene	ND		210	22
86-73-7	Fluorene	ND		210	25
118-74-1	Hexachlorobenzene	ND		210	29
87-68-3	Hexachlorobutadiene	ND		210	31
77-47-4	Hexachlorocyclopentadiene	ND		210	29
67-72-1	Hexachloroethane	ND		210	27
193-39-5	Indeno[1,2,3-cd]pyrene	ND		210	26
78-59-1	Isophorone	ND		210	45
621-64-7	N-Nitrosodi-n-propylamine	ND		210	36
86-30-6	N-Nitrosodiphenylamine	ND		210	170
91-20-3	Naphthalene	ND		210	27
98-95-3	Nitrobenzene	ND		210	24
87-86-5	Pentachlorophenol	ND		410	210
85-01-8	Phenanthrene	ND		210	31
108-95-2	Phenol	ND		210	32
129-00-0	Pyrene	ND		210	25

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-106 | Lab Sample ID: 480-133590-2

Matrix: Solid | Lab File ID: X210404.D

Analysis Method: 8270D | Date Collected: 04/04/2018 08:30

Extract. Method: 3550C | Date Extracted: 04/05/2018 06:39

Sample wt/vol: 30.26(g) | Date Analyzed: 04/06/2018 03:16

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407454 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	Biphenyl	ND		1100	160
108-60-1	bis (2-chloroisopropyl) ether	ND		1100	210
95-95-4	2,4,5-Trichlorophenol	ND		1100	290
88-06-2	2,4,6-Trichlorophenol	ND		1100	210
120-83-2	2,4-Dichlorophenol	ND		1100	110
105-67-9	2,4-Dimethylphenol	ND		1100	260
51-28-5	2,4-Dinitrophenol	ND		10000	4900
121-14-2	2,4-Dinitrotoluene	ND		1100	220
606-20-2	2,6-Dinitrotoluene	ND		1100	130
91-58-7	2-Chloronaphthalene	ND		1100	180
95-57-8	2-Chlorophenol	ND		1100	200
95-48-7	2-Methylphenol	ND		1100	130
91-57-6	2-Methylnaphthalene	ND		1100	210
88-74-4	2-Nitroaniline	ND		2100	160
88-75-5	2-Nitrophenol	ND		1100	300
91-94-1	3,3'-Dichlorobenzidine	ND		2100	1300
99-09-2	3-Nitroaniline	ND		2100	300
534-52-1	4,6-Dinitro-2-methylphenol	ND		2100	1100
101-55-3	4-Bromophenyl phenyl ether	ND		1100	150
59-50-7	4-Chloro-3-methylphenol	ND		1100	260
106-47-8	4-Chloroaniline	ND		1100	260
7005-72-3	4-Chlorophenyl phenyl ether	ND		1100	130
106-44-5	4-Methylphenol	ND		2100	130
100-01-6	4-Nitroaniline	ND		2100	560
100-02-7	4-Nitrophenol	ND		2100	750
83-32-9	Acenaphthene	ND		1100	160
208-96-8	Acenaphthylene	ND		1100	140
98-86-2	Acetophenone	ND		1100	150
120-12-7	Anthracene	ND		1100	260
1912-24-9	Atrazine	ND		1100	370
100-52-7	Benzaldehyde	ND		1100	850
56-55-3	Benzo[a]anthracene	ND		1100	110
50-32-8	Benzo[a]pyrene	ND		1100	160
205-99-2	Benzo[b]fluoranthene	ND		1100	170

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-106 | Lab Sample ID: 480-133590-2

Matrix: Solid | Lab File ID: X210404.D

Analysis Method: 8270D | Date Collected: 04/04/2018 08:30

Extract. Method: 3550C | Date Extracted: 04/05/2018 06:39

Sample wt/vol: 30.26(g) | Date Analyzed: 04/06/2018 03:16

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407454 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
191-24-2	Benzo[g,h,i]perylene	ND		1100	110
207-08-9	Benzo[k]fluoranthene	ND		1100	140
111-91-1	Bis(2-chloroethoxy)methane	ND		1100	230
111-44-4	Bis(2-chloroethyl)ether	ND		1100	140
117-81-7	Bis(2-ethylhexyl) phthalate	ND		1100	370
85-68-7	Butyl benzyl phthalate	ND		1100	180
105-60-2	Caprolactam	ND		1100	320
86-74-8	Carbazole	ND		1100	130
218-01-9	Chrysene	ND		1100	240
53-70-3	Dibenz(a,h)anthracene	ND		1100	190
84-74-2	Di-n-butyl phthalate	ND		1100	180
117-84-0	Di-n-octyl phthalate	ND		1100	130
132-64-9	Dibenzofuran	ND		1100	130
84-66-2	Diethyl phthalate	ND		1100	140
131-11-3	Dimethyl phthalate	ND		1100	130
206-44-0	Fluoranthene	ND		1100	110
86-73-7	Fluorene	ND		1100	130
118-74-1	Hexachlorobenzene	ND		1100	150
87-68-3	Hexachlorobutadiene	ND		1100	160
77-47-4	Hexachlorocyclopentadiene	ND		1100	150
67-72-1	Hexachloroethane	ND		1100	140
193-39-5	Indeno[1,2,3-cd]pyrene	ND		1100	130
78-59-1	Isophorone	ND		1100	230
621-64-7	N-Nitrosodi-n-propylamine	ND		1100	180
86-30-6	N-Nitrosodiphenylamine	ND		1100	870
91-20-3	Naphthalene	ND		1100	140
98-95-3	Nitrobenzene	ND		1100	120
87-86-5	Pentachlorophenol	ND		2100	1100
85-01-8	Phenanthrene	ND		1100	160
108-95-2	Phenol	ND		1100	160
129-00-0	Pyrene	ND		1100	130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-105 | Lab Sample ID: 480-133590-3

Matrix: Solid | Lab File ID: X210405.D

Analysis Method: 8270D | Date Collected: 04/04/2018 08:45

Extract. Method: 3550C | Date Extracted: 04/05/2018 06:39

Sample wt/vol: 30.68(g) | Date Analyzed: 04/06/2018 03:42

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407454 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	Biphenyl	ND		960	140
108-60-1	bis (2-chloroisopropyl) ether	ND		960	190
95-95-4	2,4,5-Trichlorophenol	ND		960	260
88-06-2	2,4,6-Trichlorophenol	ND		960	190
120-83-2	2,4-Dichlorophenol	ND		960	100
105-67-9	2,4-Dimethylphenol	ND		960	230
51-28-5	2,4-Dinitrophenol	ND		9400	4400
121-14-2	2,4-Dinitrotoluene	ND		960	200
606-20-2	2,6-Dinitrotoluene	ND		960	110
91-58-7	2-Chloronaphthalene	ND		960	160
95-57-8	2-Chlorophenol	ND		960	170
95-48-7	2-Methylphenol	ND		960	110
91-57-6	2-Methylnaphthalene	ND		960	190
88-74-4	2-Nitroaniline	ND		1900	140
88-75-5	2-Nitrophenol	ND		960	270
91-94-1	3,3'-Dichlorobenzidine	ND		1900	1100
99-09-2	3-Nitroaniline	ND		1900	270
534-52-1	4,6-Dinitro-2-methylphenol	ND		1900	960
101-55-3	4-Bromophenyl phenyl ether	ND		960	140
59-50-7	4-Chloro-3-methylphenol	ND		960	240
106-47-8	4-Chloroaniline	ND		960	240
7005-72-3	4-Chlorophenyl phenyl ether	ND		960	120
106-44-5	4-Methylphenol	ND		1900	110
100-01-6	4-Nitroaniline	ND		1900	500
100-02-7	4-Nitrophenol	ND		1900	670
83-32-9	Acenaphthene	ND		960	140
208-96-8	Acenaphthylene	ND		960	120
98-86-2	Acetophenone	ND		960	130
120-12-7	Anthracene	ND		960	240
1912-24-9	Atrazine	ND		960	330
100-52-7	Benzaldehyde	ND		960	760
56-55-3	Benzo(a)anthracene	180	J	960	96
50-32-8	Benzo(a)pyrene	ND		960	140
205-99-2	Benzo(b)fluoranthene	250	J	960	150

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-105 | Lab Sample ID: 480-133590-3

Matrix: Solid | Lab File ID: X210405.D

Analysis Method: 8270D | Date Collected: 04/04/2018 08:45

Extract. Method: 3550C | Date Extracted: 04/05/2018 06:39

Sample wt/vol: 30.68(g) | Date Analyzed: 04/06/2018 03:42

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407454 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
191-24-2	Benzo[g,h,i]perylene	ND		960	100
207-08-9	Benzo[k]fluoranthene	ND		960	120
111-91-1	Bis(2-chloroethoxy)methane	ND		960	200
111-44-4	Bis(2-chloroethyl)ether	ND		960	120
117-81-7	Bis(2-ethylhexyl) phthalate	ND		960	330
85-68-7	Butyl benzyl phthalate	ND		960	160
105-60-2	Caprolactam	ND		960	290
86-74-8	Carbazole	ND		960	110
218-01-9	Chrysene	230	J	960	210
53-70-3	Dibenz(a,h)anthracene	ND		960	170
84-74-2	Di-n-butyl phthalate	ND		960	160
117-84-0	Di-n-octyl phthalate	ND		960	110
132-64-9	Dibenzofuran	ND		960	110
84-66-2	Diethyl phthalate	ND		960	120
131-11-3	Dimethyl phthalate	ND		960	110
206-44-0	Fluoranthene	400	J	960	100
86-73-7	Fluorene	ND		960	110
118-74-1	Hexachlorobenzene	ND		960	130
87-68-3	Hexachlorobutadiene	ND		960	140
77-47-4	Hexachlorocyclopentadiene	ND		960	130
67-72-1	Hexachloroethane	ND		960	120
193-39-5	Indeno[1,2,3-cd]pyrene	180	J	960	120
78-59-1	Isophorone	ND		960	200
621-64-7	N-Nitrosodi-n-propylamine	ND		960	160
86-30-6	N-Nitrosodiphenylamine	ND		960	780
91-20-3	Naphthalene	ND		960	120
98-95-3	Nitrobenzene	ND		960	110
87-86-5	Pentachlorophenol	ND		1900	960
85-01-8	Phenanthrene	ND		960	140
108-95-2	Phenol	ND		960	150
129-00-0	Pyrene	320	J	960	110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133608-1

SDG No.:

Client Sample ID: HFL-MW-104 (9-11) | Lab Sample ID: 480-133608-1

Matrix: Solid | Lab File ID: X210406.D

Analysis Method: 8270D | Date Collected: 04/04/2018 14:00

Extract. Method: 3550C | Date Extracted: 04/05/2018 06:39

Sample wt/vol: 30.44(g) | Date Analyzed: 04/06/2018 04:09

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 30.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407454 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	Biphenyl	ND		240	35
108-60-1	bis (2-chloroisopropyl) ether	ND		240	48
95-95-4	2,4,5-Trichlorophenol	ND		240	65
88-06-2	2,4,6-Trichlorophenol	ND		240	48
120-83-2	2,4-Dichlorophenol	ND		240	25
105-67-9	2,4-Dimethylphenol	ND		240	58
51-28-5	2,4-Dinitrophenol	ND		2300	1100
121-14-2	2,4-Dinitrotoluene	ND		240	49
606-20-2	2,6-Dinitrotoluene	ND		240	28
91-58-7	2-Chloronaphthalene	ND		240	40
95-57-8	2-Chlorophenol	ND		240	44
95-48-7	2-Methylphenol	ND		240	28
91-57-6	2-Methylnaphthalene	ND		240	48
88-74-4	2-Nitroaniline	ND		470	35
88-75-5	2-Nitrophenol	ND		240	68
91-94-1	3,3'-Dichlorobenzidine	ND		470	280
99-09-2	3-Nitroaniline	ND		470	66
534-52-1	4,6-Dinitro-2-methylphenol	ND		470	240
101-55-3	4-Bromophenyl phenyl ether	ND		240	34
59-50-7	4-Chloro-3-methylphenol	ND		240	59
106-47-8	4-Chloroaniline	ND		240	59
7005-72-3	4-Chlorophenyl phenyl ether	ND		240	30
106-44-5	4-Methylphenol	ND		470	28
100-01-6	4-Nitroaniline	ND		470	130
100-02-7	4-Nitrophenol	ND		470	170
83-32-9	Acenaphthene	ND		240	35
208-96-8	Acenaphthylene	ND		240	31
98-86-2	Acetophenone	ND		240	32
120-12-7	Anthracene	ND		240	59
1912-24-9	Atrazine	ND		240	83
100-52-7	Benzaldehyde	ND		240	190
56-55-3	Benzo[a]anthracene	ND		240	24
50-32-8	Benzo[a]pyrene	ND		240	35
205-99-2	Benzo[b]fluoranthene	ND		240	38

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133608-1

SDG No.:

Client Sample ID: HFL-MW-104 (9-11) | Lab Sample ID: 480-133608-1

Matrix: Solid | Lab File ID: X210406.D

Analysis Method: 8270D | Date Collected: 04/04/2018 14:00

Extract. Method: 3550C | Date Extracted: 04/05/2018 06:39

Sample wt/vol: 30.44(g) | Date Analyzed: 04/06/2018 04:09

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 30.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407454 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
191-24-2	Benzo[g,h,i]perylene	ND		240	25
207-08-9	Benzo[k]fluoranthene	ND		240	31
111-91-1	Bis(2-chloroethoxy)methane	ND		240	51
111-44-4	Bis(2-chloroethyl)ether	ND		240	31
117-81-7	Bis(2-ethylhexyl) phthalate	ND		240	82
85-68-7	Butyl benzyl phthalate	ND		240	40
105-60-2	Caprolactam	ND		240	72
86-74-8	Carbazole	ND		240	28
218-01-9	Chrysene	ND		240	54
53-70-3	Dibenz(a,h)anthracene	ND		240	42
84-74-2	Di-n-butyl phthalate	ND		240	41
117-84-0	Di-n-octyl phthalate	ND		240	28
132-64-9	Dibenzofuran	ND		240	28
84-66-2	Diethyl phthalate	ND		240	31
131-11-3	Dimethyl phthalate	ND		240	28
206-44-0	Fluoranthene	ND		240	25
86-73-7	Fluorene	ND		240	28
118-74-1	Hexachlorobenzene	ND		240	32
87-68-3	Hexachlorobutadiene	ND		240	35
77-47-4	Hexachlorocyclopentadiene	ND		240	32
67-72-1	Hexachloroethane	ND		240	31
193-39-5	Indeno[1,2,3-cd]pyrene	ND		240	30
78-59-1	Isophorone	ND		240	51
621-64-7	N-Nitrosodi-n-propylamine	ND		240	41
86-30-6	N-Nitrosodiphenylamine	ND		240	190
91-20-3	Naphthalene	ND		240	31
98-95-3	Nitrobenzene	ND		240	27
87-86-5	Pentachlorophenol	ND		470	240
85-01-8	Phenanthrene	ND		240	35
108-95-2	Phenol	ND		240	37
129-00-0	Pyrene	ND		240	28

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134080-1

SDG No.:

Client Sample ID: HFL-MW-105(22-24) | Lab Sample ID: 480-134080-1

Matrix: Solid | Lab File ID: X210612.D

Analysis Method: 8270D | Date Collected: 04/11/2018 16:45

Extract. Method: 3550C | Date Extracted: 04/14/2018 06:42

Sample wt/vol: 30.58(g) | Date Analyzed: 04/16/2018 20:06

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 20.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 409039 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	Biphenyl	ND		210	31
108-60-1	bis (2-chloroisopropyl) ether	ND	UJ	210	42
95-95-4	2,4,5-Trichlorophenol	ND		210	57
88-06-2	2,4,6-Trichlorophenol	ND		210	42
120-83-2	2,4-Dichlorophenol	ND		210	22
105-67-9	2,4-Dimethylphenol	ND		210	51
51-28-5	2,4-Dinitrophenol	ND		2100	970
121-14-2	2,4-Dinitrotoluene	ND		210	43
606-20-2	2,6-Dinitrotoluene	ND		210	25
91-58-7	2-Chloronaphthalene	ND		210	35
95-57-8	2-Chlorophenol	ND		210	38
95-48-7	2-Methylphenol	ND		210	25
91-57-6	2-Methylnaphthalene	ND		210	42
88-74-4	2-Nitroaniline	ND		410	31
88-75-5	2-Nitrophenol	ND		210	59
91-94-1	3,3'-Dichlorobenzidine	ND		410	250
99-09-2	3-Nitroaniline	ND		410	58
534-52-1	4,6-Dinitro-2-methylphenol	ND		410	210
101-55-3	4-Bromophenyl phenyl ether	ND		210	30
59-50-7	4-Chloro-3-methylphenol	ND		210	52
106-47-8	4-Chloroaniline	ND		210	52
7005-72-3	4-Chlorophenyl phenyl ether	ND		210	26
106-44-5	4-Methylphenol	ND		410	25
100-01-6	4-Nitroaniline	ND		410	110
100-02-7	4-Nitrophenol	ND		410	150
83-32-9	Acenaphthene	ND		210	31
208-96-8	Acenaphthylene	ND		210	27
98-86-2	Acetophenone	ND		210	28
120-12-7	Anthracene	ND		210	52
1912-24-9	Atrazine	ND		210	73
100-52-7	Benzaldehyde	ND		210	170
56-55-3	Benzo[a]anthracene	ND		210	21
50-32-8	Benzo[a]pyrene	ND		210	31
205-99-2	Benzo[b]fluoranthene	ND		210	33

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134080-1

SDG No.:

Client Sample ID: HFL-MW-105(22-24) | Lab Sample ID: 480-134080-1

Matrix: Solid | Lab File ID: X210612.D

Analysis Method: 8270D | Date Collected: 04/11/2018 16:45

Extract. Method: 3550C | Date Extracted: 04/14/2018 06:42

Sample wt/vol: 30.58(g) | Date Analyzed: 04/16/2018 20:06

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 20.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 409039 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
191-24-2	Benzo[g,h,i]perylene	ND		210	22
207-08-9	Benzo[k]fluoranthene	ND		210	27
111-91-1	Bis(2-chloroethoxy)methane	ND		210	45
111-44-4	Bis(2-chloroethyl)ether	ND		210	27
117-81-7	Bis(2-ethylhexyl) phthalate	ND		210	72
85-68-7	Butyl benzyl phthalate	ND		210	35
105-60-2	Caprolactam	ND		210	63
86-74-8	Carbazole	ND		210	25
218-01-9	Chrysene	ND		210	47
53-70-3	Dibenz(a,h)anthracene	ND		210	37
84-74-2	Di-n-butyl phthalate	ND		210	36
117-84-0	Di-n-octyl phthalate	ND		210	25
132-64-9	Dibenzofuran	ND		210	25
84-66-2	Diethyl phthalate	ND		210	27
131-11-3	Dimethyl phthalate	ND		210	25
206-44-0	Fluoranthene	ND		210	22
86-73-7	Fluorene	ND		210	25
118-74-1	Hexachlorobenzene	ND		210	28
87-68-3	Hexachlorobutadiene	ND		210	31
77-47-4	Hexachlorocyclopentadiene	ND		210	28
67-72-1	Hexachloroethane	ND		210	27
193-39-5	Indeno[1,2,3-cd]pyrene	ND		210	26
78-59-1	Isophorone	ND		210	45
621-64-7	N-Nitrosodi-n-propylamine	ND		210	36
86-30-6	N-Nitrosodiphenylamine	ND		210	170
91-20-3	Naphthalene	ND		210	27
98-95-3	Nitrobenzene	ND		210	24
87-86-5	Pentachlorophenol	ND		410	210
85-01-8	Phenanthrene	ND		210	31
108-95-2	Phenol	ND		210	32
129-00-0	Pyrene	ND		210	25

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-104 | Lab Sample ID: 480-133590-1

Matrix: Solid | Lab File ID: 25_06-095.D

Analysis Method: 8081B | Date Collected: 04/04/2018 08:15

Extraction Method: 3550C | Date Extracted: 04/05/2018 06:45

Sample wt/vol: 30.63(g) | Date Analyzed: 04/05/2018 22:19

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLPII ID: 0.53(mm)

% Moisture: 21.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407394 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
72-54-8	4,4'-DDD	ND		2.1	0.40
72-55-9	4,4'-DDE	ND		2.1	0.43
50-29-3	4,4'-DDT	ND		2.1	0.48
309-00-2	Aldrin	ND		2.1	0.51
319-84-6	alpha-BHC	ND		2.1	0.37
5103-71-9	cis-Chlordane	ND		2.1	1.0
319-85-7	beta-BHC	ND		2.1	0.37
319-86-8	delta-BHC	ND		2.1	0.39
60-57-1	Dieldrin	ND		2.1	0.50
959-98-8	Endosulfan I	ND		2.1	0.40
33213-65-9	Endosulfan II	ND		2.1	0.37
1031-07-8	Endosulfan sulfate	ND		2.1	0.39
72-20-8	Endrin	ND		2.1	0.41
7421-93-4	Endrin aldehyde	ND		2.1	0.53
53494-70-5	Endrin ketone	ND		2.1	0.51
58-89-9	gamma-BHC (Lindane)	ND		2.1	0.38
5103-74-2	trans-Chlordane	ND		2.1	0.66
76-44-8	Heptachlor	ND		2.1	0.45
1024-57-3	Heptachlor epoxide	ND		2.1	0.53
72-43-5	Methoxychlor	ND		2.1	0.42
8001-35-2	Toxaphene	ND		21	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	79		45-120
877-09-8	Tetrachloro-m-xylene	71		30-124

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-106 | Lab Sample ID: 480-133590-2

Matrix: Solid | Lab File ID: 25_06-094.D

Analysis Method: 8081B | Date Collected: 04/04/2018 08:30

Extraction Method: 3550C | Date Extracted: 04/05/2018 06:45

Sample wt/vol: 30.34(g) | Date Analyzed: 04/05/2018 21:59

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLPII ID: 0.53(mm)

% Moisture: 21.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407394 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
72-54-8	4,4'-DDD	ND		2.1	0.41
72-55-9	4,4'-DDE	ND		2.1	0.44
50-29-3	4,4'-DDT	ND		2.1	0.49
309-00-2	Aldrin	ND		2.1	0.52
319-84-6	alpha-BHC	ND		2.1	0.38
5103-71-9	cis-Chlordane	ND		2.1	1.0
319-85-7	beta-BHC	ND		2.1	0.38
319-86-8	delta-BHC	ND		2.1	0.39
60-57-1	Dieldrin	ND		2.1	0.50
959-98-8	Endosulfan I	ND		2.1	0.40
33213-65-9	Endosulfan II	ND		2.1	0.38
1031-07-8	Endosulfan sulfate	ND		2.1	0.39
72-20-8	Endrin	ND		2.1	0.42
7421-93-4	Endrin aldehyde	ND		2.1	0.54
53494-70-5	Endrin ketone	ND		2.1	0.52
58-89-9	gamma-BHC (Lindane)	ND		2.1	0.38
5103-74-2	trans-Chlordane	ND		2.1	0.67
76-44-8	Heptachlor	ND		2.1	0.45
1024-57-3	Heptachlor epoxide	ND		2.1	0.54
72-43-5	Methoxychlor	ND		2.1	0.43
8001-35-2	Toxaphene	ND		21	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	88		45-120
877-09-8	Tetrachloro-m-xylene	72		30-124

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-105 | Lab Sample ID: 480-133590-3

Matrix: Solid | Lab File ID: 25_06-096.D

Analysis Method: 8081B | Date Collected: 04/04/2018 08:45

Extraction Method: 3550C | Date Extracted: 04/05/2018 06:45

Sample wt/vol: 30.40(g) | Date Analyzed: 04/05/2018 22:39

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLPII ID: 0.53(mm)

% Moisture: 13.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407394 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
72-54-8	4,4'-DDD	ND		1.9	0.37
72-55-9	4,4'-DDE	ND		1.9	0.40
50-29-3	4,4'-DDT	ND		1.9	0.44
309-00-2	Aldrin	ND		1.9	0.47
319-84-6	alpha-BHC	ND		1.9	0.34
5103-71-9	cis-Chlordane	ND		1.9	0.95
319-85-7	beta-BHC	ND		1.9	0.34
319-86-8	delta-BHC	ND		1.9	0.35
60-57-1	Dieldrin	ND		1.9	0.46
959-98-8	Endosulfan I	ND		1.9	0.36
33213-65-9	Endosulfan II	ND		1.9	0.34
1031-07-8	Endosulfan sulfate	ND		1.9	0.35
72-20-8	Endrin	ND		1.9	0.38
7421-93-4	Endrin aldehyde	ND		1.9	0.49
53494-70-5	Endrin ketone	ND		1.9	0.47
58-89-9	gamma-BHC (Lindane)	ND		1.9	0.35
5103-74-2	trans-Chlordane	ND		1.9	0.60
76-44-8	Heptachlor	ND		1.9	0.41
1024-57-3	Heptachlor epoxide	ND		1.9	0.49
72-43-5	Methoxychlor	ND		1.9	0.39
8001-35-2	Toxaphene	ND		19	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	116		45-120
877-09-8	Tetrachloro-m-xylene	58		30-124

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133608-1

SDG No.:

Client Sample ID: HFL-MW-104 (9-11) | Lab Sample ID: 480-133608-1

Matrix: Solid | Lab File ID: 25_06-097.D

Analysis Method: 8081B | Date Collected: 04/04/2018 14:00

Extraction Method: 3550C | Date Extracted: 04/05/2018 06:45

Sample wt/vol: 30.36(g) | Date Analyzed: 04/05/2018 22:58

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLPII ID: 0.53(mm)

% Moisture: 30.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407394 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
72-54-8	4,4'-DDD	ND		2.4	0.46
72-55-9	4,4'-DDE	ND		2.4	0.50
50-29-3	4,4'-DDT	ND		2.4	0.55
309-00-2	Aldrin	ND		2.4	0.58
319-84-6	alpha-BHC	ND		2.4	0.42
5103-71-9	cis-Chlordane	ND		2.4	1.2
319-85-7	beta-BHC	ND		2.4	0.42
319-86-8	delta-BHC	ND		2.4	0.44
60-57-1	Dieldrin	ND		2.4	0.57
959-98-8	Endosulfan I	ND		2.4	0.45
33213-65-9	Endosulfan II	ND		2.4	0.42
1031-07-8	Endosulfan sulfate	ND		2.4	0.44
72-20-8	Endrin	ND		2.4	0.47
7421-93-4	Endrin aldehyde	ND		2.4	0.60
53494-70-5	Endrin ketone	ND		2.4	0.58
58-89-9	gamma-BHC (Lindane)	ND		2.4	0.43
5103-74-2	trans-Chlordane	ND		2.4	0.75
76-44-8	Heptachlor	ND		2.4	0.51
1024-57-3	Heptachlor epoxide	ND		2.4	0.61
72-43-5	Methoxychlor	ND		2.4	0.48
8001-35-2	Toxaphene	ND		24	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	79		45-120
877-09-8	Tetrachloro-m-xylene	70		30-124

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134080-1

SDG No.:

Client Sample ID: HFL-MW-105(22-24) | Lab Sample ID: 480-134080-1

Matrix: Solid | Lab File ID: 25_06-300.D

Analysis Method: 8081B | Date Collected: 04/11/2018 16:45

Extraction Method: 3550C | Date Extracted: 04/13/2018 15:08

Sample wt/vol: 30.61(g) | Date Analyzed: 04/17/2018 12:58

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLPI ID: 0.53(mm)

% Moisture: 20.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 409191 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
72-54-8	4,4'-DDD	ND		2.1	0.40
72-55-9	4,4'-DDE	ND		2.1	0.43
50-29-3	4,4'-DDT	ND		2.1	0.48
309-00-2	Aldrin	ND		2.1	0.51
319-84-6	alpha-BHC	ND		2.1	0.37
5103-71-9	cis-Chlordane	ND		2.1	1.0
319-85-7	beta-BHC	ND		2.1	0.37
319-86-8	delta-BHC	ND		2.1	0.38
60-57-1	Dieldrin	ND		2.1	0.49
959-98-8	Endosulfan I	ND		2.1	0.40
33213-65-9	Endosulfan II	ND		2.1	0.37
1031-07-8	Endosulfan sulfate	ND		2.1	0.38
72-20-8	Endrin	ND		2.1	0.41
7421-93-4	Endrin aldehyde	ND		2.1	0.53
53494-70-5	Endrin ketone	ND		2.1	0.51
58-89-9	gamma-BHC (Lindane)	ND		2.1	0.38
5103-74-2	trans-Chlordane	ND		2.1	0.66
76-44-8	Heptachlor	ND		2.1	0.45
1024-57-3	Heptachlor epoxide	ND		2.1	0.53
72-43-5	Methoxychlor	ND		2.1	0.42
8001-35-2	Toxaphene	ND		21	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	113		45-120
877-09-8	Tetrachloro-m-xylene	95		30-124

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-104 | Lab Sample ID: 480-133590-1

Matrix: Solid | Lab File ID: 7_11-313.D

Analysis Method: 8082A | Date Collected: 04/04/2018 08:15

Extraction Method: 3550C | Date Extracted: 04/05/2018 06:49

Sample wt/vol: 2.34(g) | Date Analyzed: 04/06/2018 12:54

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ZB-5 ID: 0.53(mm)

% Moisture: 21.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407494 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.27	0.053
11104-28-2	PCB-1221	ND		0.27	0.053
11141-16-5	PCB-1232	ND		0.27	0.053
53469-21-9	PCB-1242	ND		0.27	0.053
12672-29-6	PCB-1248	ND		0.27	0.053
11097-69-1	PCB-1254	ND		0.27	0.13
11096-82-5	PCB-1260	ND		0.27	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	145		60-154
2051-24-3	DCB Decachlorobiphenyl	110		65-174

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-106 | Lab Sample ID: 480-133590-2

Matrix: Solid | Lab File ID: 7_11-314.D

Analysis Method: 8082A | Date Collected: 04/04/2018 08:30

Extraction Method: 3550C | Date Extracted: 04/05/2018 06:49

Sample wt/vol: 2.31(g) | Date Analyzed: 04/06/2018 13:10

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ZB-5 ID: 0.53(mm)

% Moisture: 21.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407494 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.28	0.054
11104-28-2	PCB-1221	ND		0.28	0.054
11141-16-5	PCB-1232	ND		0.28	0.054
53469-21-9	PCB-1242	ND		0.28	0.054
12672-29-6	PCB-1248	ND		0.28	0.054
11097-69-1	PCB-1254	ND		0.28	0.13
11096-82-5	PCB-1260	ND		0.28	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	139		60-154
2051-24-3	DCB Decachlorobiphenyl	114		65-174

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-105 | Lab Sample ID: 480-133590-3

Matrix: Solid | Lab File ID: 7_11-315.D

Analysis Method: 8082A | Date Collected: 04/04/2018 08:45

Extraction Method: 3550C | Date Extracted: 04/05/2018 06:49

Sample wt/vol: 2.66(g) | Date Analyzed: 04/06/2018 13:26

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ZB-5 ID: 0.53(mm)

% Moisture: 13.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407494 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.22	0.042
11104-28-2	PCB-1221	ND		0.22	0.042
11141-16-5	PCB-1232	ND		0.22	0.042
53469-21-9	PCB-1242	ND		0.22	0.042
12672-29-6	PCB-1248	ND		0.22	0.042
11097-69-1	PCB-1254	ND		0.22	0.10
11096-82-5	PCB-1260	ND		0.22	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	154		60-154
2051-24-3	DCB Decachlorobiphenyl	124		65-174

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133608-1

SDG No.:

Client Sample ID: HFL-MW-104 (9-11) | Lab Sample ID: 480-133608-1

Matrix: Solid | Lab File ID: 7_11-316.D

Analysis Method: 8082A | Date Collected: 04/04/2018 14:00

Extraction Method: 3550C | Date Extracted: 04/05/2018 06:49

Sample wt/vol: 2.11(g) | Date Analyzed: 04/06/2018 13:42

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ZB-5 ID: 0.53(mm)

% Moisture: 30.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407494 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.34	0.066
11104-28-2	PCB-1221	ND		0.34	0.066
11141-16-5	PCB-1232	ND		0.34	0.066
53469-21-9	PCB-1242	ND		0.34	0.066
12672-29-6	PCB-1248	ND		0.34	0.066
11097-69-1	PCB-1254	ND		0.34	0.16
11096-82-5	PCB-1260	ND		0.34	0.16

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	168	X	60-154
2051-24-3	DCB Decachlorobiphenyl	143		65-174

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134080-1

SDG No.:

Client Sample ID: HFL-MW-105(22-24) | Lab Sample ID: 480-134080-1

Matrix: Solid | Lab File ID: 12_014_117.D

Analysis Method: 8082A | Date Collected: 04/11/2018 16:45

Extraction Method: 3550C | Date Extracted: 04/16/2018 10:18

Sample wt/vol: 2.52(g) | Date Analyzed: 04/17/2018 14:31

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ZB-35 ID: 0.53(mm)

% Moisture: 20.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 409202 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.25	0.049
11104-28-2	PCB-1221	ND		0.25	0.049
11141-16-5	PCB-1232	ND		0.25	0.049
53469-21-9	PCB-1242	ND		0.25	0.049
12672-29-6	PCB-1248	ND		0.25	0.049
11097-69-1	PCB-1254	ND		0.25	0.12
11096-82-5	PCB-1260	ND		0.25	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	108		60-154
2051-24-3	DCB Decachlorobiphenyl	108		65-174

QC NONCONFORMANCE DOCUMENTATION

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Buffalo Job No.: 480-133590-1 Analy Batch No.: 404437

SDG No.:

Instrument ID: HP5973F GC Column: ZB-624 (30) ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/16/2018 16:48 Calibration End Date: 03/16/2018 19:22 Calibration ID: 33147

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	1.5961 1.7420	1.5836 1.6423	1.7088	1.7974	1.6600	Ave		1.6757			0.1000	4.7		20.0			
Isobutyl alcohol	+++++ 0.0765	0.0722 0.0715	0.0724	0.0806	0.0820	Ave		0.0759				6.0		20.0			
Benzene	5.8590 5.3915	5.5685 4.8315	5.9867	6.0662	5.4308	Ave		5.5906			0.5000	7.6		20.0			
1,2-Dichloroethane	2.0663 1.8414	1.9093 1.7130	2.0238	2.0409	1.8579	Ave		1.9218			0.1000	6.7		20.0			
n-Heptane	2.8768 2.5795	2.7767 2.3273	2.8573	2.9127	2.5736	Ave		2.7006				7.9		20.0			
Trichloroethene	1.4668 1.4322	1.4472 1.3367	1.5365	1.5680	1.4101	Ave		1.4568			0.2000	5.3		20.0			
Methylcyclohexane	2.7462 2.5504	2.6175 2.3694	2.8137	2.8389	2.5117	Ave		2.6354			0.1000	6.6		20.0			
1,2-Dichloropropane	1.3951 1.3318	1.2672 1.2657	1.3851	1.4326	1.3300	Ave		1.3439			0.1000	4.8		20.0			
1,4-Dioxane	+++++ 0.0073	0.0075 0.0070	0.0076	0.0082	0.0080	Ave		0.0076				6.1		20.0			
Dibromomethane	0.8297 0.8448	0.7967 0.8023	0.8624	0.8838	0.8428	Ave		0.8375			0.1000	3.7		20.0			
Bromodichloromethane	1.5430 1.7536	1.5185 1.6844	1.6906	1.7463	1.6836	Ave		1.6600			0.2000	5.6		20.0			
2-Chloroethyl vinyl ether	0.7847 0.9028	0.8115 0.8641	0.8630	0.9109	0.8769	Ave		0.8591				5.4		20.0			
cis-1,3-Dichloropropene	2.0608 2.1861	1.9207 2.0508	2.1500	2.2154	2.1424	Ave		2.1038			0.2000	4.8		20.0			
4-Methyl-2-pentanone (MIBK)	0.7042 0.6980	0.7531 0.5983	0.7883	0.8448	0.7687	Ave		0.7365			0.1000	10.7		20.0			
Toluene	1.9433 1.6792	1.7888 1.5630	1.9023	1.9096	1.7117	Ave		1.7854			0.4000	7.9		20.0			
trans-1,3-Dichloropropene	0.8604 0.9529	0.8373 0.9177	0.9244	0.9769	0.9461	Ave		0.9165			0.1000	5.5		20.0			
Ethyl methacrylate	0.8554 0.9029	0.8348 0.8673	0.8963	0.9430	0.9155	Ave		0.8879				4.2		20.0			
1,1,2-Trichloroethane	0.4950 0.4851	0.4934 0.4702	0.5134	0.5258	0.4896	Ave		0.4961			0.1000	3.7		20.0			
Tetrachloroethene	0.7527 0.7472	0.7573 0.7033	0.8289	0.8420	0.7571	Ave		0.7698			0.2000	6.3		20.0			
1,3-Dichloropropane	1.0273 0.9912	0.9933 0.9356	1.0493	1.0751	1.0009	Ave		1.0104				4.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-133590-1

SDG No.:

Lab Sample ID: CCVIS 480-407281/3 Calibration Date: 04/05/2018 08:49

Instrument ID: HP5973F Calib Start Date: 03/16/2018 16:48

GC Column: ZB-624 (30) VOA ID: 0.25(mm) Calib End Date: 03/16/2018 19:22

Lab File ID: F1490.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	2.635	2.771	0.1000	52.6	50.0	5.1	20.0
1,2-Dichloropropane	Ave	1.344	1.404	0.1000	52.2	50.0	4.5	20.0
1,4-Dioxane	Ave	0.0076	0.0087		1150	1000	14.5	50.0
Dibromomethane	Ave	0.8375	0.8943	0.1000	53.4	50.0	6.8	20.0
Bromodichloromethane	Ave	1.660	1.701	0.2000	51.2	50.0	2.5	20.0
2-Chloroethyl vinyl ether	Ave	0.8591	0.9080		52.8	50.0	5.7	20.0
cis-1,3-Dichloropropene	Ave	2.104	2.128	0.2000	50.6	50.0	1.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7365	0.8261	0.1000	280	250	12.2	20.0
Toluene	Ave	1.785	1.840	0.4000	51.5	50.0	3.1	20.0
trans-1,3-Dichloropropene	Ave	0.9165	0.9304	0.1000	50.8	50.0	1.5	20.0
Ethyl methacrylate	Ave	0.8879	0.9301		52.4	50.0	4.7	20.0
1,1,2-Trichloroethane	Ave	0.4961	0.5233	0.1000	52.7	50.0	5.5	20.0
Tetrachloroethene	Ave	0.7698	0.8162	0.2000	53.0	50.0	6.0	20.0
1,3-Dichloropropane	Ave	1.010	1.066		52.8	50.0	5.5	20.0
2-Hexanone	Ave	0.5687	0.6485	0.1000	285	250	14.0	20.0
Dibromochloromethane	Ave	0.5864	0.6206	0.1000	52.9	50.0	5.8	20.0
1,2-Dibromoethane	Ave	0.6239	0.6705		53.7	50.0	7.5	20.0
Chlorobenzene	Ave	1.932	2.014	0.5000	52.1	50.0	4.2	20.0
Ethylbenzene	Ave	3.147	3.305	0.1000	52.5	50.0	5.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.5916	0.5929		50.1	50.0	0.2	20.0
m,p-Xylene	Ave	1.299	1.367	0.1000	52.6	50.0	5.2	20.0
o-Xylene	Ave	1.231	1.290	0.3000	52.4	50.0	4.8	20.0
Styrene	Ave	2.191	2.273	0.3000	51.9	50.0	3.7	20.0
Bromoform	Ave	0.3805	0.3790	0.1000	49.8	50.0	-0.4	50.0
Isopropylbenzene	Ave	3.015	3.155	0.1000	52.3	50.0	4.6	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7587	0.8258	0.3000	54.4	50.0	8.9	20.0
Bromobenzene	Ave	0.8441	0.8635		51.1	50.0	2.3	20.0
N-Propylbenzene	Ave	3.531	3.697		52.3	50.0	4.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2598	0.2661		51.2	50.0	2.4	50.0
1,2,3-Trichloropropane	Ave	0.2562	0.2716		53.0	50.0	6.0	20.0
2-Chlorotoluene	Ave	0.7657	0.7842		51.2	50.0	2.4	20.0
1,3,5-Trimethylbenzene	Ave	2.573	2.689		52.2	50.0	4.5	20.0
4-Chlorotoluene	Ave	0.8144	0.8408		51.6	50.0	3.2	20.0
tert-Butylbenzene	Ave	0.5922	0.6115		51.6	50.0	3.3	20.0
1,2,4-Trimethylbenzene	Ave	2.642	2.760		52.2	50.0	4.4	20.0
sec-Butylbenzene	Ave	3.246	3.419		52.7	50.0	5.3	20.0
4-Isopropyltoluene	Ave	2.832	2.986		52.7	50.0	5.4	20.0
1,3-Dichlorobenzene	Ave	1.593	1.632	0.6000	51.2	50.0	2.4	20.0
1,4-Dichlorobenzene	Ave	1.625	1.684	0.5000	51.8	50.0	3.6	20.0
n-Butylbenzene	Ave	2.505	2.646		52.8	50.0	5.6	20.0
1,2-Dichlorobenzene	Ave	1.487	1.514	0.4000	50.9	50.0	1.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134080-1

SDG No.:

Lab Sample ID: CCVIS 480-408660/3 Calibration Date: 04/13/2018 10:00

Instrument ID: HP5973F Calib Start Date: 03/16/2018 16:48

GC Column: ZB-624 (30) VOA ID: 0.25(mm) Calib End Date: 03/16/2018 19:22

Lab File ID: F1696.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	2.635	2.687	0.1000	51.0	50.0	2.0	20.0
1,2-Dichloropropane	Ave	1.344	1.367	0.1000	50.9	50.0	1.7	20.0
1,4-Dioxane	Ave	0.0076	0.0084		1110	1000	10.6	50.0
Dibromomethane	Ave	0.8375	0.8812	0.1000	52.6	50.0	5.2	20.0
Bromodichloromethane	Ave	1.660	1.721	0.2000	51.8	50.0	3.7	20.0
2-Chloroethyl vinyl ether	Ave	0.8591	0.8579		49.9	50.0	-0.1	20.0
cis-1,3-Dichloropropene	Ave	2.104	2.086	0.2000	49.6	50.0	-0.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7365	0.7528	0.1000	256	250	2.2	20.0
Toluene	Ave	1.785	1.806	0.4000	50.6	50.0	1.1	20.0
trans-1,3-Dichloropropene	Ave	0.9165	0.9055	0.1000	49.4	50.0	-1.2	20.0
Ethyl methacrylate	Ave	0.8879	0.8771		49.4	50.0	-1.2	20.0
1,1,2-Trichloroethane	Ave	0.4961	0.5029	0.1000	50.7	50.0	1.4	20.0
Tetrachloroethene	Ave	0.7698	0.8069	0.2000	52.4	50.0	4.8	20.0
1,3-Dichloropropane	Ave	1.010	1.036		51.3	50.0	2.6	20.0
2-Hexanone	Ave	0.5687	0.5885	0.1000	259	250	3.5	20.0
Dibromochloromethane	Ave	0.5864	0.6290	0.1000	53.6	50.0	7.3	20.0
1,2-Dibromoethane	Ave	0.6239	0.6492		52.0	50.0	4.0	20.0
Chlorobenzene	Ave	1.932	1.995	0.5000	51.6	50.0	3.2	20.0
Ethylbenzene	Ave	3.147	3.257	0.1000	51.8	50.0	3.5	20.0
1,1,1,2-Tetrachloroethane	Ave	0.5916	0.5906		49.9	50.0	-0.2	20.0
m,p-Xylene	Ave	1.299	1.329	0.1000	51.1	50.0	2.3	20.0
o-Xylene	Ave	1.231	1.263	0.3000	51.3	50.0	2.7	20.0
Styrene	Ave	2.191	2.229	0.3000	50.9	50.0	1.7	20.0
Bromoform	Ave	0.3805	0.3883	0.1000	51.0	50.0	2.0	50.0
Isopropylbenzene	Ave	3.015	3.054	0.1000	50.6	50.0	1.3	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7587	0.7830	0.3000	51.6	50.0	3.2	20.0
Bromobenzene	Ave	0.8441	0.8500		50.3	50.0	0.7	20.0
N-Propylbenzene	Ave	3.531	3.612		51.1	50.0	2.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2598	0.2512		48.3	50.0	-3.3	50.0
1,2,3-Trichloropropane	Ave	0.2562	0.2560		50.0	50.0	-0.0	20.0
2-Chlorotoluene	Ave	0.7657	0.7641		49.9	50.0	-0.2	20.0
1,3,5-Trimethylbenzene	Ave	2.573	2.588		50.3	50.0	0.6	20.0
4-Chlorotoluene	Ave	0.8144	0.8238		50.6	50.0	1.2	20.0
tert-Butylbenzene	Ave	0.5922	0.6016		50.8	50.0	1.6	20.0
1,2,4-Trimethylbenzene	Ave	2.642	2.668		50.5	50.0	1.0	20.0
sec-Butylbenzene	Ave	3.246	3.292		50.7	50.0	1.4	20.0
4-Isopropyltoluene	Ave	2.832	2.877		50.8	50.0	1.6	20.0
1,3-Dichlorobenzene	Ave	1.593	1.614	0.6000	50.6	50.0	1.3	20.0
1,4-Dichlorobenzene	Ave	1.625	1.634	0.5000	50.3	50.0	0.6	20.0
n-Butylbenzene	Ave	2.505	2.572		51.3	50.0	2.7	20.0
1,2-Dichlorobenzene	Ave	1.487	1.483	0.4000	49.8	50.0	-0.3	20.0

FORM VII 8260C

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Buffalo Job No.: 480-133590-1 Analy Batch No.: 405952

SDG No.:

Instrument ID: HP5973X GC Column: RXI-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/27/2018 15:15 Calibration End Date: 03/27/2018 17:54 Calibration ID: 33339

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Diethyl phthalate	1.4311 1.6283	1.5067 1.6753	1.5176	1.6454	1.6361	Ave		1.5772			0.0100	5.8		20.0			
Hexadecane	1.1441 1.2357	1.1564 1.2230	1.1904	1.2438	1.2385	Ave		1.2046			0.0100	3.4		20.0			
4-Chlorophenyl phenyl ether	0.7716 0.8538	0.8325 0.8934	0.8291	0.8645	0.8739	Ave		0.8455			0.4000	4.7		20.0			
4-Nitroaniline	0.2732 0.3919	0.3131 0.4113	0.3608	0.3929	0.4053	Ave		0.3641			0.0100	14.4		20.0			
Fluorene	1.4794 1.6022	1.5320 1.6204	1.4904	1.5930	1.5632	Ave		1.5544			0.9000	3.6		20.0			
4,6-Dinitro-2-methylphenol	0.0540 0.1612	0.0923 0.1666	0.1191	0.1461	0.1485	Lin2	-0.527	0.1531			0.0100	8.7			0.9920		0.9900
Diphenylamine	0.5886 0.6655	0.6498 0.6779	0.6156	0.6250	0.6417	Ave		0.6377			0.0100	4.8		20.0			
N-Nitrosodiphenylamine	0.5032 0.5690	0.5556 0.5796	0.5263	0.5344	0.5487	Ave		0.5453			0.0100	4.8		20.0			
1,2-Diphenylhydrazine	0.7568 0.8600	0.8349 0.8665	0.8232	0.8207	0.8530	Ave		0.8307			0.0100	4.5		20.0			
trans-Azobenzene	0.7568 0.8600	0.8349 0.8665	0.8232	0.8207	0.8530	Ave		0.8307			0.0100	4.5		20.0			
4-Bromophenyl phenyl ether	0.2105 0.2673	0.2397 0.2808	0.2610	0.2593	0.2620	Lin2	-0.147	0.2690			0.1000	2.5			0.9990		0.9900
Hexachlorobenzene	0.2568 0.2734	0.2566 0.2792	0.2478	0.2619	0.2663	Ave		0.2631			0.1000	4.1		20.0			
Atrazine	0.3833 0.4539	0.4433 0.4484	0.4430	0.4821	0.4718	Lin2	-0.187	0.4652			0.0100	3.5			0.9990		0.9900
Pentachlorophenol	+++++ 0.1665	0.0174 0.1812	0.0788	0.1298	0.1483	Lin2	-1.502	0.1575			0.0500	17.4			0.9700		0.9900
n-Octadecane	0.5130 0.6192	0.5661 0.6156	0.5685	0.5875	0.6081	Lin2	-0.231	0.6056			0.0100	2.6			0.9990		0.9900
Phenanthrene	1.0507 1.1481	1.0835 1.1723	1.0939	1.1085	1.1088	Ave		1.1094			0.7000	3.6		20.0			
Anthracene	1.0589 1.2166	1.1131 1.2034	1.1266	1.1571	1.1829	Ave		1.1512			0.7000	4.8		20.0			
Carbazole	0.8851 1.0479	0.9838 1.0663	0.9845	1.0208	1.0296	Lin2	-0.375	1.0399			0.0100	2.3			0.9990		0.9900
Di-n-butyl phthalate	1.0997 1.3150	1.2061 1.3603	1.2102	1.2882	1.2528	Lin2	-0.502	1.2974			0.0100	3.5			0.9990		0.9900
Fluoranthene	1.1616 1.3644	1.2543 1.4020	1.2296	1.3323	1.3355	Lin2	-0.477	1.3446			0.6000	3.7			0.9980		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134080-1

SDG No.:

Lab Sample ID: CCVIS 480-409039/3 Calibration Date: 04/16/2018 16:32

Instrument ID: HP5973X Calib Start Date: 04/09/2018 16:24

GC Column: RXI-5Sil MS ID: 0.25(mm) Calib End Date: 04/09/2018 19:04

Lab File ID: X210604.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin2		0.4990	0.0100	45900	50000	-8.3	20.0
N-Nitrosodimethylamine	Lin2		1.389	0.0100	64900	50000	29.8	50.0
Pyridine	Ave	1.405	1.669	0.0100	119000	100000	18.8	50.0
Benzaldehyde	Ave	0.996	0.8379	0.0100	42000	50000	-15.9	50.0
Phenol	Ave	1.627	1.475	0.8000	45300	50000	-9.3	20.0
Aniline	Ave	1.900	1.785	0.0100	47000	50000	-6.0	20.0
Bis(2-chloroethyl)ether	Ave	1.215	1.076	0.7000	44300	50000	-11.5	20.0
2-Chlorophenol	Ave	1.312	1.257	0.8000	47900	50000	-4.2	20.0
n-Decane	Ave	1.811	1.827	0.0100	50500	50000	0.9	20.0
1,3-Dichlorobenzene	Ave	1.618	1.591	0.0100	49200	50000	-1.7	20.0
1,4-Dichlorobenzene	Lin2		1.630	0.0100	49200	50000	-1.7	20.0
Benzyl alcohol	Lin2		0.8727	0.0100	50400	50000	0.9	20.0
1,2-Dichlorobenzene	Ave	1.546	1.561	0.0100	50500	50000	1.0	20.0
2-Methylphenol	Lin2		1.159	0.7000	48100	50000	-3.8	20.0
bis (2-chloroisopropyl) ether	Ave	2.045	2.514	0.0100	61500	50000	22.9*	20.0
Indene	Ave	0.6457	0.5482.	0.0100	127000	150000	-15.1	20.0
N-Nitrosodi-n-propylamine	Lin2		0.8684	0.5000	44500	50000	-11.0	20.0
4-Methylphenol	Lin2		1.236	0.6000	47000	50000	-6.0	20.0
Acetophenone	Lin2		1.851	0.0100	46200	50000	-7.6	20.0
Hexachloroethane	Ave	0.6239	0.5883	0.3000	47100	50000	-5.7	20.0
Nitrobenzene	Lin2		0.4121	0.2000	46200	50000	-7.5	20.0
Isophorone	Lin2		0.6560	0.4000	46400	50000	-7.3	20.0
2-Nitrophenol	Lin2		0.2112	0.1000	49500	50000	-1.0	20.0
2,4-Dimethylphenol	Lin2		0.4115	0.2000	48000	50000	-4.1	20.0
Bis(2-chloroethoxy)methane	Lin2		0.3627	0.3000	43400	50000	-13.3	20.0
Benzoic acid	Lin1		0.2125	0.0100	119000	150000	-20.6	50.0
2,4-Dichlorophenol	Lin2		0.3696	0.2000	52200	50000	4.4	20.0
1,2,4-Trichlorobenzene	Ave	0.4266	0.4690	0.0100	55000	50000	9.9	20.0
Naphthalene	Ave	1.081	1.068	0.7000	49400	50000	-1.2	20.0
4-Chloroaniline	Lin2		0.4260	0.0100	49500	50000	-1.1	20.0
2,6-Dichlorophenol	Lin2		0.3504	0.0100	49700	50000	-0.5	20.0
Hexachlorobutadiene	Lin2		0.3412	0.0100	54300	50000	8.6	20.0
Caprolactam	Lin2		0.0937	0.0100	47800	50000	-4.3	50.0
4-Chloro-3-methylphenol	Lin2		0.3166	0.2000	46800	50000	-6.4	20.0
2-Methylnaphthalene	Lin2		0.8174	0.4000	53200	50000	6.4	20.0
1-Methylnaphthalene	Lin2		0.7528	0.0100	52100	50000	4.3	20.0
Hexachlorocyclopentadiene	Lin2		0.6121	0.0500	46100	50000	-7.9	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.8589	0.8641	0.0100	50300	50000	0.6	20.0
2,4,6-Trichlorophenol	Lin2		0.5080	0.2000	50500	50000	1.0	20.0
2,4,5-Trichlorophenol	Lin2		0.5400	0.2000	50700	50000	1.4	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-133590-1

SDG No.:

Lab Sample ID: CCVIS 480-407394/5 Calibration Date: 04/05/2018 15:24

Instrument ID: HP6890-25 Calib Start Date: 03/23/2018 12:40

GC Column: RTX-CLPI ID: 0.53(mm) Calib End Date: 03/23/2018 13:58

Lab File ID: 25_06-074.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Lin1		1.852		0.0488	0.0500	-2.4	20.0
gamma-BHC (Lindane)	Lin1		1.711		0.0499	0.0500	-0.3	20.0
beta-BHC	Lin1		0.6828		0.0493	0.0500	-1.4	20.0
delta-BHC	Lin1		1.217		0.0377	0.0500	-24.7*	20.0
Heptachlor	Lin1		1.707		0.0566	0.0500	13.1	20.0
Aldrin	Lin1		1.623		0.0542	0.0500	8.4	20.0
Heptachlor epoxide	Lin1		1.427		0.0559	0.0500	11.8	20.0
trans-Chlordane	Lin1		1.482		0.0495	0.0500	-1.0	20.0
cis-Chlordane	Lin1		1.075		0.0392	0.0500	-21.5*	20.0
4,4'-DDE	Lin1		1.364		0.0484	0.0500	-3.3	20.0
Endosulfan I	Lin1		1.113		0.0473	0.0500	-5.3	20.0
Dieldrin	Lin1		1.015		0.0407	0.0500	-18.6	20.0
Endrin	Lin1		1.389		0.0566	0.0500	13.2	20.0
4,4'-DDD	Lin1		1.133		0.0502	0.0500	0.5	20.0
Endosulfan II	Lin1		1.181		0.0520	0.0500	3.9	20.0
4,4'-DDT	Lin1		1.228		0.0500	0.0500	0.0	20.0
Endrin aldehyde	Lin1		0.9667		0.0529	0.0500	5.8	20.0
Methoxychlor	Lin1		0.5733		0.0514	0.0500	2.8	20.0
Endosulfan sulfate	Lin1		0.7972		0.0427	0.0500	-14.7	20.0
Endrin ketone	Lin1		1.037		0.0440	0.0500	-11.9	20.0
Tetrachloro-m-xylene	Lin1		0.8098		0.0418	0.0500	-16.5	20.0
DCB Decachlorobiphenyl	Lin1		0.8815		0.0442	0.0500	-11.7	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-133590-1

SDG No.:

Lab Sample ID: CCVIS 480-407494/4 Calibration Date: 04/06/2018 08:56

Instrument ID: HP6890-7 Calib Start Date: 11/29/2017 12:34

GC Column: ZB-35 ID: 0.53(mm) Calib End Date: 11/29/2017 14:09

Lab File ID: 7_11-299.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin1		0.0857		0.612	0.500	22.3*	20.0
PCB-1016 Peak 2	Lin1		0.0334		0.604	0.500	20.8*	20.0
PCB-1016 Peak 3	Lin1		0.0227		0.656	0.500	31.2*	20.0
PCB-1016 Peak 4	Lin1		0.0399		0.621	0.500	24.2*	20.0
PCB-1016 Peak 5	Lin1		0.0309		0.632	0.500	26.4*	20.0
PCB-1260 Peak 1	Lin1		0.0530		0.686	0.500	37.3*	20.0
PCB-1260 Peak 2	Lin1		0.0588		0.665	0.500	32.9*	20.0
PCB-1260 Peak 3	Lin1		0.0406		0.682	0.500	36.4*	20.0
PCB-1260 Peak 4	Lin1		0.0896		0.636	0.500	27.2*	20.0
PCB-1260 Peak 5	Lin1		0.0583		0.625	0.500	25.0*	20.0
Tetrachloro-m-xylene	Lin1		1.564		0.0172	0.0125	37.2*	20.0
DCB Decachlorobiphenyl	Lin1		1.067		0.0155	0.0125	24.2*	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-133590-1

SDG No.:

Lab Sample ID: CCV 480-407494/5 Calibration Date: 04/06/2018 09:12

Instrument ID: HP6890-7 Calib Start Date: 11/29/2017 15:45

GC Column: ZB-35 ID: 0.53(mm) Calib End Date: 11/29/2017 16:17

Lab File ID: 7_11-300.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Lin1		0.0076		0.549	0.500	9.8	20.0
PCB-1221 Peak 2	Lin1		0.0124		0.595	0.500	18.9	20.0
PCB-1221 Peak 3	Lin1		0.0079		0.673	0.500	34.7*	20.0
PCB-1221 Peak 4	Lin1		0.0203		0.594	0.500	18.8	20.0
PCB-1254 Peak 1	Lin1		0.0441		0.544	0.500	8.9	20.0
PCB-1254 Peak 2	Lin1		0.0336		0.708	0.500	41.6*	20.0
PCB-1254 Peak 3	Lin1		0.0753		0.550	0.500	10.0	20.0
PCB-1254 Peak 4	Lin1		0.0770		0.567	0.500	13.4	20.0
PCB-1254 Peak 5	Lin1		0.0513		0.450	0.500	-10.0	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-133590-1

SDG No.:

Lab Sample ID: CCV 480-407494/7 Calibration Date: 04/06/2018 09:44

Instrument ID: HP6890-7 Calib Start Date: 11/29/2017 17:52

GC Column: ZB-35 ID: 0.53(mm) Calib End Date: 11/29/2017 18:24

Lab File ID: 7_11-302.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Lin1		0.0356		0.636	0.500	27.1*	20.0
PCB-1242 Peak 2	Lin1		0.0746		0.628	0.500	25.6*	20.0
PCB-1242 Peak 3	Lin1		0.0291		0.644	0.500	28.8*	20.0
PCB-1242 Peak 4	Lin1		0.0157		0.611	0.500	22.3*	20.0
PCB-1242 Peak 5	Lin1		0.0360		0.656	0.500	31.1*	20.0
PCB-1268 Peak 1	Lin1		0.1355		0.605	0.500	21.0*	20.0
PCB-1268 Peak 2	Lin1		0.1257		0.602	0.500	20.3*	20.0
PCB-1268 Peak 3	Lin1		0.0287		0.625	0.500	25.1*	20.0
PCB-1268 Peak 4	Lin1		0.0454		0.590	0.500	18.1	20.0
PCB-1268 Peak 5	Lin1		0.3679		0.580	0.500	16.0	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134080-1

SDG No.:

Lab Sample ID: CCV 480-409202/6 Calibration Date: 04/17/2018 10:10

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 11:35

GC Column: ZB-5 ID: 0.53(mm) Calib End Date: 04/05/2018 12:06

Lab File ID: 12_014_103.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Ave	0.0314	0.0392		0.624	0.500	24.8*	20.0
PCB-1232 Peak 2	Ave	0.0250	0.0320		0.641	0.500	28.2*	20.0
PCB-1232 Peak 3	Lin1		0.0172		0.645	0.500	28.9*	20.0
PCB-1232 Peak 4	Ave	0.0322	0.0373		0.578	0.500	15.6	20.0
PCB-1232 Peak 5	Ave	0.0158	0.0199		0.628	0.500	25.5*	20.0
PCB-1262 Peak 1	Ave	0.0572	0.0599		0.524	0.500	4.8	20.0
PCB-1262 Peak 2	Lin1		0.0500		0.580	0.500	16.1	20.0
PCB-1262 Peak 3	Ave	0.0321	0.0367		0.571	0.500	14.2	20.0
PCB-1262 Peak 4	Ave	0.0400	0.0469		0.587	0.500	17.3	20.0
PCB-1262 Peak 5	Ave	0.0666	0.0755		0.567	0.500	13.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134080-1

SDG No.:

Lab Sample ID: CCV 480-409202/7 Calibration Date: 04/17/2018 10:25

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 12:37

GC Column: ZB-35 ID: 0.53(mm) Calib End Date: 04/05/2018 13:07

Lab File ID: 12_014_104.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Ave	0.0732	0.0829		0.566	0.500	13.2	20.0
PCB-1242 Peak 2	Ave	0.0303	0.0353		0.584	0.500	16.7	20.0
PCB-1242 Peak 3	Ave	0.0398	0.0514		0.646	0.500	29.2*	20.0
PCB-1242 Peak 4	Lin1		0.0410		0.606	0.500	21.3*	20.0
PCB-1242 Peak 5	Ave	0.0295	0.0332		0.563	0.500	12.6	20.0
PCB-1268 Peak 1	Ave	0.1217	0.1324		0.544	0.500	8.9	20.0
PCB-1268 Peak 2	Lin1		0.2066		0.611	0.500	22.2*	20.0
PCB-1268 Peak 3	Ave	0.1326	0.1168		0.440	0.500	-11.9	20.0
PCB-1268 Peak 4	Ave	0.0582	0.0623		0.535	0.500	7.1	20.0
PCB-1268 Peak 5	Lin1		0.4720		0.639	0.500	27.8*	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134080-1

SDG No.:

Lab Sample ID: CCV 480-409202/7 Calibration Date: 04/17/2018 10:25

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 12:37

GC Column: ZB-5 ID: 0.53(mm) Calib End Date: 04/05/2018 13:07

Lab File ID: 12_014_104.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Ave	0.0640	0.0669		0.523	0.500	4.5	20.0
PCB-1242 Peak 2	Ave	0.0325	0.0315		0.485	0.500	-3.1	20.0
PCB-1242 Peak 3	Ave	0.0362	0.0345		0.478	0.500	-4.5	20.0
PCB-1242 Peak 4	Lin1		0.0679		0.796	0.500	59.2*	20.0
PCB-1242 Peak 5	Lin1		0.0300		0.438	0.500	-12.5	20.0
PCB-1268 Peak 1	Ave	0.1029	0.1225		0.595	0.500	19.0	20.0
PCB-1268 Peak 2	Ave	0.1830	0.2195		0.600	0.500	19.9	20.0
PCB-1268 Peak 3	Ave	0.1115	0.1295		0.581	0.500	16.1	20.0
PCB-1268 Peak 4	Ave	0.0482	0.0628		0.652	0.500	30.3*	20.0
PCB-1268 Peak 5	Ave	0.3921	0.4514		0.576	0.500	15.1	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134080-1

SDG No.:

Lab Sample ID: CCV 480-409202/8 Calibration Date: 04/17/2018 10:40

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 13:38

GC Column: ZB-5 ID: 0.53(mm) Calib End Date: 04/05/2018 14:09

Lab File ID: 12_014_105.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Lin1		0.0382		0.410	0.500	-17.9	20.0
PCB-1248 Peak 2	Ave	0.0489	0.0487		0.498	0.500	-0.4	20.0
PCB-1248 Peak 3	Ave	0.0405	0.0392		0.485	0.500	-3.0	20.0
PCB-1248 Peak 4	Lin1		0.0201		0.393	0.500	-21.5*	20.0
PCB-1248 Peak 5	Lin1		0.0496		0.500	0.500	-0.0	20.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 480-407277/2-A

Matrix: Solid | Lab File ID: F1494.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 04/05/2018 10:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 407281 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		25	3.0
1634-04-4	Methyl tert-butyl ether	ND		5.0	0.49
108-87-2	Methylcyclohexane	ND		5.0	0.76
75-09-2	Methylene Chloride	4.05	J	5.0	2.3
100-42-5	Styrene	ND		5.0	0.25
127-18-4	Tetrachloroethene	ND		5.0	0.67
108-88-3	Toluene	ND		5.0	0.38
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.52
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	2.2
79-01-6	Trichloroethene	ND		5.0	1.1
75-69-4	Trichlorofluoromethane	ND		5.0	0.47
75-01-4	Vinyl chloride	ND		5.0	0.61
1330-20-7	Xylenes, Total	ND		10	0.84
123-91-1	1,4-Dioxane	ND		100	22

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		64-126
460-00-4	4-Bromofluorobenzene (Surr)	100		72-126
1868-53-7	Dibromofluoromethane (Surr)	99		60-140
2037-26-5	Toluene-d8 (Surr)	101		71-125

FORM II
PCBS SURROGATE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-133608-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): ZB-5 ID: 0.53(mm) GC Column (2): ZB-35 ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TCX1 #	TCX2 #	DCBP1 #	DCBP2 #
HFL-MW-104 (9-11)	480-133608-1	168 X	152	143	162
	MB 480-407273/1-A	135	122	115	131
	LCS 480-407273/2-A	149	148	125	141

	QC LIMITS
TCX = Tetrachloro-m-xylene	60-154
DCBP = DCB Decachlorobiphenyl	65-174

Column to be used to flag recovery values

FORM II 8082A

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-134080-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: F1718.D

Lab ID: 480-134080-1 MS Client ID: HFL-MW-105(22-24) MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	60.9	ND	58.4	96	77-121	
1,1,2,2-Tetrachloroethane	60.9	ND	47.6	78	80-120	F1
1,1,2-Trichloro-1,2,2-trifluoroethane	60.9	ND	58.3	96	60-140	
1,1,2-Trichloroethane	60.9	ND	55.2	91	78-122	
1,1-Dichloroethane	60.9	ND	62.7	103	73-126	
1,1-Dichloroethene	60.9	ND	60.0	99	59-125	
1,2,4-Trichlorobenzene	60.9	ND	40.5	67	64-120	
1,2-Dibromo-3-Chloropropane	60.9	ND	37.3	61	63-124	F1
1,2-Dibromoethane	60.9	ND	51.0	84	78-120	
1,2-Dichlorobenzene	60.9	ND	52.9	87	75-120	
1,2-Dichloroethane	60.9	ND	54.2	89	77-122	
1,2-Dichloropropane	60.9	ND	62.4	103	75-124	
1,3-Dichlorobenzene	60.9	ND	52.7	87	74-120	
1,4-Dichlorobenzene	60.9	ND	51.5	85	73-120	
2-Butanone (MEK)	304	ND	202	66	70-134	F1
2-Hexanone	304	ND	197	65	59-130	
4-Methyl-2-pentanone (MIBK)	304	ND	209	69	65-133	
Acetone	304	ND	206	68	61-137	
Benzene	60.9	ND	63.3	104	79-127	
Bromodichloromethane	60.9	ND	60.8	100	80-122	
Bromoform	60.9	ND	46.4	76	68-126	
Bromomethane	60.9	ND	61.7	101	37-149	
Carbon disulfide	60.9	ND	53.7	88	64-131	
Carbon tetrachloride	60.9	ND	55.1	91	75-135	
Chlorobenzene	60.9	ND	58.8	97	76-124	
Chloroethane	60.9	ND	62.2	102	69-135	
Chloroform	60.9	ND	63.3	104	80-120	
Chloromethane	60.9	ND	56.3	93	63-127	
cis-1,2-Dichloroethene	60.9	ND	61.3	101	80-120	
cis-1,3-Dichloropropene	60.9	ND	53.8	88	80-120	
Cyclohexane	60.9	ND	58.1	95	65-120	
Dibromochloromethane	60.9	ND	57.3	94	76-125	
Dichlorodifluoromethane	60.9	ND	60.6	99	57-142	
Ethylbenzene	60.9	ND	60.7	100	80-120	
Isopropylbenzene	60.9	ND	60.7	100	72-120	
Methyl acetate	122	ND	89.2	73	55-136	
Methyl tert-butyl ether	60.9	ND	51.3	84	63-125	
Methylcyclohexane	60.9	ND	58.3	96	60-140	
Methylene Chloride	60.9	ND	54.7	90	61-127	
Styrene	60.9	ND	56.6	93	80-120	
Tetrachloroethene	60.9	ND	59.5	98	74-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-134080-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: F1718.D

Lab ID: 480-134080-1 MS Client ID: HFL-MW-105(22-24) MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Toluene	60.9	ND	59.6	98	74-128	
trans-1,2-Dichloroethene	60.9	ND	59.7	98	78-126	
trans-1,3-Dichloropropene	60.9	ND	48.4	80	73-123	
Trichloroethene	60.9	ND	60.9	100	77-129	
Trichlorofluoromethane	60.9	ND	66.0	108	65-146	
Vinyl chloride	60.9	ND	54.1	89	61-133	
1,4-Dioxane	1220	ND	766	63	64-124	F1

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-134080-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: F1719.D

Lab ID: 480-134080-1 MSD Client ID: HFL-MW-105(22-24) MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	49.8	47.8	96	20	30	77-121	
1,1,2,2-Tetrachloroethane	49.8	41.0	82	15	30	80-120	
1,1,2-Trichloro-1,2,2-trifluoroethane	49.8	46.5	94	22	30	60-140	
1,1,2-Trichloroethane	49.8	45.8	92	19	30	78-122	
1,1-Dichloroethane	49.8	50.6	102	21	30	73-126	
1,1-Dichloroethene	49.8	47.9	96	22	30	59-125	
1,2,4-Trichlorobenzene	49.8	33.4	67	19	30	64-120	
1,2-Dibromo-3-Chloropropane	49.8	32.6	66	13	30	63-124	
1,2-Dibromoethane	49.8	42.3	85	19	30	78-120	
1,2-Dichlorobenzene	49.8	42.4	85	22	30	75-120	
1,2-Dichloroethane	49.8	44.9	90	19	30	77-122	
1,2-Dichloropropane	49.8	50.2	101	22	30	75-124	
1,3-Dichlorobenzene	49.8	42.0	84	23	30	74-120	
1,4-Dichlorobenzene	49.8	40.5	81	24	30	73-120	
2-Butanone (MEK)	249	173	69	15	30	70-134	F1
2-Hexanone	249	169	68	15	30	59-130	
4-Methyl-2-pentanone (MIBK)	249	183	74	13	30	65-133	
Acetone	249	165	66	22	30	61-137	
Benzene	49.8	50.7	102	22	30	79-127	
Bromodichloromethane	49.8	50.5	101	19	30	80-122	
Bromoform	49.8	40.6	82	13	30	68-126	
Bromomethane	49.8	51.4	103	18	30	37-149	
Carbon disulfide	49.8	41.8	84	25	30	64-131	
Carbon tetrachloride	49.8	45.7	92	19	30	75-135	
Chlorobenzene	49.8	46.3	93	24	30	76-124	
Chloroethane	49.8	49.9	100	22	30	69-135	
Chloroform	49.8	51.2	103	21	30	80-120	
Chloromethane	49.8	44.6	90	23	30	63-127	
cis-1,2-Dichloroethene	49.8	49.6	100	21	30	80-120	
cis-1,3-Dichloropropene	49.8	44.3	89	19	30	80-120	
Cyclohexane	49.8	45.9	92	23	30	65-120	
Dibromochloromethane	49.8	48.2	97	17	30	76-125	
Dichlorodifluoromethane	49.8	47.5	96	24	30	57-142	
Ethylbenzene	49.8	48.2	97	23	30	80-120	
Isopropylbenzene	49.8	48.0	96	23	30	72-120	
Methyl acetate	99.5	71.5	72	22	30	55-136	
Methyl tert-butyl ether	49.8	44.1	89	15	30	63-125	
Methylcyclohexane	49.8	46.3	93	23	30	60-140	
Methylene Chloride	49.8	44.5	89	20	30	61-127	
Styrene	49.8	45.0	90	23	30	80-120	
Tetrachloroethene	49.8	46.9	94	24	30	74-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

Data Usability Summary Report

Site: Hoosick Falls Landfill
Laboratory: Test America - Buffalo, Amherst, NY
SDGs: 480-133590-1, 480-133608-1, and 480-134080-1
Parameters: Volatile Organic Compounds (VOCs), Semivolatile Organic Compounds (SVOCs), Pesticides, Polychlorinated Biphenyl (PCB) Aroclors
Data Reviewers: Samir A. Naguib and Kristen Morin/TRC
Peer Reviewer: Elizabeth Denly/TRC
Date: April 26, 2018
Revision Date: July 25, 2018

Samples Reviewed and Evaluation Summary

SDG: 480-133590-1

3 surface soil samples HFL-SS-104, HFL-SS-105, HFL-SS-106

SDG: 480-133608-1

1 soil sample HFL-MW-104 (9-11)

SDG: 480-134080-1

1 soil sample HFL-MW-105 (22-24)

The above-listed soil samples were collected on April 4 and 11, 2018 and were analyzed for the following parameters:

- VOCs by SW-846 Methods 5035A/8260C
- SVOCs by SW-846 Methods 3550C/8270D
- Pesticides by SW-846 Methods 3550C/8081B
- PCB Aroclors by SW-846 Methods 3550C/8082A

The data validation was performed in accordance with the following USEPA guidance, modified for the SW-846 methodologies utilized:

- USEPA National Functional Guidelines for Organic Superfund Methods Data Review, January 2017

The data were evaluated based on the following parameters:

- Overall Evaluation of Data and Potential Usability Issues
* • Data Completeness
* • Holding Times and Sample Preservation
* • Gas Chromatography/Electron Capture Detector (GC/ECD) Instrument Performance

		Checks
*	•	Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
	•	Initial and Continuing Calibrations
	•	Blanks
	•	Surrogate Recoveries
*	•	Internal Standards
*	•	Laboratory Control Sample (LCS)/ LCS Duplicate (LCSD) Results
	•	Matrix Spike and Matrix Spike Duplicate (MS/MSD) Results
NA	•	Field Duplicate Results
*	•	Percent Solids
	•	Sample Results and Reported Quantitation Limits
*	•	Target Compound Identification

*	-	All criteria were met.
NA	-	Field duplicates were not associated with this sample set.

Overall Evaluation of Data and Potential Usability Issues

All results are usable for project objectives with the exception of 1,4-dioxane (VOC) in all samples due to low VOC calibration response factors. Qualifications applied to the data as a result of sampling error were not required. Qualifications applied to the data as a result of analytical error are discussed below.

- The nondetect VOC results for 1,4-dioxane in all samples were rejected (R) due to low relative response factors (RRFs) in initial and continuing calibrations. These results are not usable for project objectives. Since the results for 1,4-dioxane from the SVOC analyses of these samples were usable, there was no adverse impact on the data usability.

- Potential uncertainty exists for select VOC and SVOC results that were below the lowest calibration standard and quantitation limit (QL). These results were qualified as estimated (J) in the associated samples. These results can be used for project objectives as estimated values, which may have a minor impact on the data usability.

- The positive results for methylene chloride in samples HFL-SS-104 and HFL-MW-104 (9-11) were qualified as nondetect (U) due to method blank contamination. These results can be used for project objectives as nondetects, which may have a minor impact on the data usability.

- The nondetect result for bis(2-chloroisopropyl)ether in sample HFL-MW-105 (22-24) was qualified as estimated (UJ) due to a continuing calibration nonconformance. This result can be used for project objectives as a nondetect with an estimated QL, which may have a minor impact on the data usability.

- The nondetect results for 1,1,2,2-tetrachloroethane, 1,2-dibromo-3-chloropropane, and 2-butanone in sample HFL-MW-105 (22-24) were qualified as estimated (UJ) due to low MS/MSD recoveries. These results can be used for project objectives as nondetects with

estimated QLs, which may have a minor impact on the data usability.

Data Completeness

The data packages were complete Level IV data deliverable packages.

The data packages were revised on July 17, 2018 to add 1,4-dioxane to the SVOC analyses.

Holding Times and Sample Preservation

All holding times and sample preservation method criteria were met for the VOC, SVOC, pesticide and PCB analyses.

GC/ECD Instrument Performance Checks

All criteria were met for the DDT/endrin breakdown checks associated with the pesticide analyses.

GC/MS Tunes

All criteria were met in the VOC and SVOC analyses.

Initial and Continuing Calibrations

VOCs

All percent relative standard deviations (%RSDs) and correlation coefficients were within the acceptance criteria in the initial calibrations (ICs) associated with the samples in this data set.

The following table summarizes the RRF that did not meet the method acceptance criteria in the IC associated with the samples in this data set.

IC	Compound	RRF	Validation Actions
HP5973F 03/16/18	1,4-Dioxane	0.0076	The nondetect results for 1,4-dioxane was rejected (R) in the associated samples. The results for 1,4-dioxane from the SVOC analyses should be used for project objectives.
Associated samples: HFL-SS-104, HFL-SS-105, HFL-SS-106, HFL-MW-104 (9-11), HFL-MW-105 (22-24)			

The following table summarizes the RRFs that did not meet the method acceptance criteria in the continuing calibration (CC) standards associated with the samples in this data set.

CC	Compound	RRF	%D	Validation Actions
HP5973F 04/05/18 08:49	1,4-Dioxane	0.0087	-	The nondetect results for 1,4-dioxane were rejected (R) in the associated samples. The results for 1,4-dioxane from the SVOC analyses should be used for project objectives.
Associated samples: HFL-SS-104, HFL-SS-105, HFL-SS-106, HFL-MW-104 (9-11)				

CC	Compound	RRF	%D	Validation Actions
HP5973F 04/13/18 10:00	1,4-Dioxane	0.0084	-	The nondetect result for 1,4-dioxane was rejected (R) in the associated sample. The result for 1,4-dioxane from the SVOC analysis should be used for project objectives.
Associated sample: HFL-MW-105 (22-24) - Criteria met				

SVOCs

All %RSDs and RRFs were within the acceptance criteria in the ICs associated with the samples in this data set.

The following table summarizes the correlation coefficient (r^2) that did not meet the method acceptance criteria in the IC associated with the samples in this data set.

IC	Compound	r^2	Validation Actions
HP5973X 03/27/18	Pentachlorophenol	0.9700	No qualifications were required in the associated samples since pentachlorophenol was nondetect.
Associated samples: HFL-SS-104, HFL-SS-105, HFL-SS-106, HFL-MW-104 (9-11)			

All RRFs were within the method acceptance criteria for the target analytes in the CCs associated with the samples in this data set. The following table summarizes the percent difference (%D) that did not meet the method acceptance criteria in the CC standards associated with the samples in this data set.

CC	Compound	%D	Validation Actions
HP5973X 04/16/18 @ 16:32	Bis(2-chloroisopropyl)ether	22.9	The nondetect result for bis(2-chloroisopropyl)ether was qualified as estimated (UJ) in the associated sample.
Associated sample: HFL-MW-105 (22-24)			

Pesticides

All r^2 were within the method acceptance criteria in the initial calibrations associated with the sample in this data set. The following table summarizes the %Ds that did not meet the method acceptance criteria in the continuing calibration standards associated with the samples in this data set.

CCV	Instrument	Compound	%D		Validation Actions
			Col RTX-CLP-I	Col RTX-CLP-II	
04/05/18 @ 15:24	HP6890-25	delta-BHC	-24.7	-	No qualifications were required since the results were reported from column RTX-CLP-II which had acceptable %Ds.
		cis-Chlordane	-21.5	-	
Associated samples: HFL-SS-104, HFL-SS-105, HFL-SS-106, HFL-MW-104 (9-11) - Criteria met					

PCBs

All %RSDs and r^2 were within the method acceptance criteria in the initial calibrations associated with the samples in this data set. The following table summarizes the %Ds that did not meet the method acceptance criteria in the continuing calibration standards associated with the samples in this data set.

CCV	Instrument	Compound	%D		Validation Actions
			Col ZB-5	Col ZB-35	
04/06/18 @ 08:56	HP6890-7	PCB-1016 Peak 1	-	22.3	No qualification required; results were reported from column ZB-5 which had acceptable average %Ds.
		PCB-1016 Peak 2	-	20.8	
		PCB-1016 Peak 3	-	31.2	
		PCB-1016 Peak 4	-	24.2	
		PCB-1016 Peak 5	-	26.4	
		PCB-1260 Peak 1	-	37.3	
		PCB-1260 Peak 2	-	32.9	
		PCB-1260 Peak 3	-	36.4	
		PCB-1260 Peak 4	-	27.2	
		PCB-1260 Peak 5	-	25.0	
04/06/18 @ 09:12		PCB-1221 Peak 3	-	34.7	
		PCB-1254 Peak 2	-	41.6	
04/06/18 @ 09:44		PCB-1242 Peak 1	-	27.1	
		PCB-1242 Peak 2	-	25.6	
		PCB-1242 Peak 3	-	28.8	
		PCB-1242 Peak 4	-	22.3	
		PCB-1242 Peak 5	-	31.1	
Associated samples: HFL-SS-104, HFL-SS-105, HFL-SS-106, HFL-MW-104 (9-11) - Criteria met					
04/17/18 @ 10:10	HP5890-12	PCB-1232 Peak 1	24.8	-	No qualification was required since the result was nondetect and the %D on the ZB-35 column was acceptable.
		PCB-1232 Peak 2	28.2	-	
		PCB-1232 Peak 3	28.9	-	
		PCB-1232 Peak 5	25.5	-	
04/17/18 @ 10:25		PCB-1242 Peak 3	-	29.2	No qualification was required since the average %D was within the acceptance criteria on both columns.
		PCB-1242 Peak 4	59.2	21.3	
04/17/18 @ 10:40		PCB-1248 Peak 4	-21.5	-	No qualification was required since the average %D was within the acceptance criteria and the %D on the ZB-35 column was acceptable.
Associated sample: HFL-MW-105 (22-24) - Criteria met					

Blanks

All method blanks for SVOCs, pesticides and PCBs were free of contamination.

It should be noted that the laboratory put all method blanks for pesticides through florisil cleanup although only one sample (HFL-SS-105) required florisil cleanup. The method blanks should be treated in the same manner as the samples for proper evaluation. Since pesticides were not detected

in any samples in this data set, data usability was not impacted.

VOCs

The following table summarizes the contaminant detected in the method blanks, the concentration detected, and the resulting validation actions.

Blank ID	Compound	Blank Concentration	Validation Actions
MB 480-407277/2-A	Methylene chloride	4.05 J µg/Kg	The positive results for methylene chloride in samples HFL-SS-104 and HFL-MW-104 (9-11) were qualified as nondetect (U) at the QL since the concentrations were <QL.
Associated samples: HFL-SS-104, HFL-SS-105, HFL-SS-106, HFL-MW-104 (9-11)			

Surrogate Recoveries

All criteria were met in the VOC, SVOC, and pesticide analyses.

PCBs

The following table lists the surrogate percent recoveries (%Rs) that were outside of the acceptance limits and the resulting validation actions.

Sample ID	Surrogate	%R ZB-35	%R ZB-5	%R QC Limits	Validation Actions
HFL-MW-104 (9-11)	Tetrachloro-m-xylene	-	168	60-154	No qualification of the data was required due to high %Rs since PCBs were not detected in sample HFL-MW-104 (9-11).
	Decachlorobiphenyl	-	-	65-174	

Internal Standards

All criteria were met in the VOC, SVOC, pesticide and PCB analyses.

LCS/LCSD Results

The LCS/LCSD %Rs and/or relative percent differences (RPDs) were within the laboratory acceptance criteria in the VOC, SVOC pesticide, and PCB analyses.

It should be noted that the laboratory put all LCSs for pesticides through florisil cleanup although only one sample (HFL-SS-105) required florisil cleanup. The LCSs should be treated in the same manner as the samples for proper evaluation. Since pesticides were not detected in any samples in this data set, data usability was not impacted.

MS/MSD Results

MS/MSD analyses were performed on sample HFL-SS-104 for SVOCs and PCBs; sample HFL-MW-105 (22-24) for VOCs, SVOCs, pesticides and PCBs; and sample HFL-SS-106 for pesticides. All %Rs and RPDs met the laboratory acceptance criteria in the SVOC, pesticide, and PCB MS/MSD analyses.

The following table summarizes the %Rs that were outside of the acceptance criteria in the VOC analyses.

MS/MSD Sample ID	Compound	MS %R	MSD %R	RPD	QC Limits %R/RPD	Validation Action
HFL-MW-105 (22-24)	1,1,2,2-Tetrachloroethane	78	-	-	80-120/30	The nondetect results for 1,1,2,2-tetrachloroethene, 1,2-dibromo-3-chloropropane, and 2-butanone in sample HFL-MW-105 (22-24) were qualified as estimated (UJ) due to low MS/MSD recoveries.
	1,2-Dibromo-3-Chloropropane	61	-	-	63-124/30	
	2-Butanone	66	69	-	70-134/30	
	1,4-Dioxane	63	-	-	64-124/30	The nondetect result for 1,4-dioxane was previously rejected (R) in sample HFL-MW-105 (22-24) due to calibration nonconformances; further qualification of the data was not required. The result for 1,4-dioxane from the SVOC analysis should be used for project objectives.

-Criteria met

Field Duplicate Results

No field duplicate pairs were submitted with this sample set.

Percent Solids

The percent solids for the soil samples in this data set were >30%; thus, no qualification was required.

Sample Results and Reported Quantitation Limits

Select VOC and SVOC results were reported below the lowest calibration standard level and QL. These results were qualified as estimated (J) in the associated samples by the laboratory.

1,4-Dioxane was reported by both VOC and SVOC methods; the nondetect results for 1,4-dioxane in the SVOC analyses of all samples in these SDGs should be used for decision-making purposes since the nondetect VOC results were rejected.

Sample calculations for all parameters were spot-checked; there were no errors noted. The following table summarizes dilutions performed on samples in this data set; QLs were elevated

accordingly.

Parameter	Sample ID	Dilution	Reason for Dilution
SVOCs	HFL-SS-106	5-fold	A 5-fold dilution was performed due to the color of the sample extract.
	HFL-SS-105		

For PCB analyses, the laboratory used the medium/high concentration extraction procedure and thus used a 2-gram rather than a 30-gram aliquot which is typically used for a low concentration extraction procedure. The QLs were elevated accordingly, but there was no impact on meeting the project action limits.

It should be noted that sample HFL-MW-105 (22-24) was decanted prior to extraction for SVOCs.

Target Compound Identification

All criteria were met for the VOC, SVOC, pesticide, and PCB analyses.

QUALIFIED FORM Is

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-104 | Lab Sample ID: 480-133590-1

Matrix: Solid | Lab File ID: F1497.D

Analysis Method: 8260C | Date Collected: 04/04/2018 08:15

Sample wt/vol: 8.236(g) | Date Analyzed: 04/05/2018 12:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 21.1 | Level: (low/med) Low

Analysis Batch No.: 407281 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		3.8	0.28
79-34-5	1,1,2,2-Tetrachloroethane	ND		3.8	0.62
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.8	0.88
79-00-5	1,1,2-Trichloroethane	ND		3.8	0.50
75-34-3	1,1-Dichloroethane	ND		3.8	0.47
75-35-4	1,1-Dichloroethene	ND		3.8	0.47
120-82-1	1,2,4-Trichlorobenzene	ND		3.8	0.23
96-12-8	1,2-Dibromo-3-Chloropropane	ND		3.8	1.9
106-93-4	1,2-Dibromoethane	ND		3.8	0.49
95-50-1	1,2-Dichlorobenzene	ND		3.8	0.30
107-06-2	1,2-Dichloroethane	ND		3.8	0.19
78-87-5	1,2-Dichloropropane	ND		3.8	1.9
541-73-1	1,3-Dichlorobenzene	ND		3.8	0.20
106-46-7	1,4-Dichlorobenzene	ND		3.8	0.54
78-93-3	2-Butanone (MEK)	ND		19	1.4
591-78-6	2-Hexanone	ND		19	1.9
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		19	1.3
67-64-1	Acetone	3.2	J	19	3.2
71-43-2	Benzene	ND		3.8	0.19
75-27-4	Bromodichloromethane	ND		3.8	0.52
75-25-2	Bromoform	ND		3.8	1.9
74-83-9	Bromomethane	ND		3.8	0.35
75-15-0	Carbon disulfide	ND		3.8	1.9
56-23-5	Carbon tetrachloride	ND		3.8	0.37
108-90-7	Chlorobenzene	ND		3.8	0.51
75-00-3	Chloroethane	ND		3.8	0.87
67-66-3	Chloroform	ND		3.8	0.24
74-87-3	Chloromethane	ND		3.8	0.23
156-59-2	cis-1,2-Dichloroethene	ND		3.8	0.49
10061-01-5	cis-1,3-Dichloropropene	ND		3.8	0.55
110-82-7	Cyclohexane	ND		3.8	0.54
124-48-1	Dibromochloromethane	ND		3.8	0.49
75-71-8	Dichlorodifluoromethane	ND		3.8	0.32
100-41-4	Ethylbenzene	ND		3.8	0.27
98-82-8	Isopropylbenzene	ND		3.8	0.58

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-104 | Lab Sample ID: 480-133590-1

Matrix: Solid | Lab File ID: F1497.D

Analysis Method: 8260C | Date Collected: 04/04/2018 08:15

Sample wt/vol: 8.236(g) | Date Analyzed: 04/05/2018 12:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 21.1 | Level: (low/med) Low

Analysis Batch No.: 407281 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		19	2.3
1634-04-4	Methyl tert-butyl ether	ND		3.8	0.38
108-87-2	Methylcyclohexane	ND		3.8	0.59
75-09-2	Methylene Chloride	~~2.1~~ ~~J B~~ U		3.8	1.8
100-42-5	Styrene	ND		3.8	0.19
127-18-4	Tetrachloroethene	ND		3.8	0.52
108-88-3	Toluene	ND		3.8	0.29
156-60-5	trans-1,2-Dichloroethene	ND		3.8	0.40
10061-02-6	trans-1,3-Dichloropropene	ND		3.8	1.7
79-01-6	Trichloroethene	ND		3.8	0.85
75-69-4	Trichlorofluoromethane	ND		3.8	0.36
75-01-4	Vinyl chloride	ND		3.8	0.47
1330-20-7	Xylenes, Total	ND		7.7	0.65
123-91-1	1,4-Dioxane	~~ND~~ R		~~77~~	~~17~~

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		64-126
460-00-4	4-Bromofluorobenzene (Surr)	99		72-126
1868-53-7	Dibromofluoromethane (Surr)	100		60-140
2037-26-5	Toluene-d8 (Surr)	100		71-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-106 | Lab Sample ID: 480-133590-2

Matrix: Solid | Lab File ID: F1498.D

Analysis Method: 8260C | Date Collected: 04/04/2018 08:30

Sample wt/vol: 6.975(g) | Date Analyzed: 04/05/2018 12:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 21.4 | Level: (low/med) Low

Analysis Batch No.: 407281 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		4.6	0.33
79-34-5	1,1,2,2-Tetrachloroethane	ND		4.6	0.74
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.6	1.0
79-00-5	1,1,2-Trichloroethane	ND		4.6	0.59
75-34-3	1,1-Dichloroethane	ND		4.6	0.56
75-35-4	1,1-Dichloroethene	ND		4.6	0.56
120-82-1	1,2,4-Trichlorobenzene	ND		4.6	0.28
96-12-8	1,2-Dibromo-3-Chloropropane	ND		4.6	2.3
106-93-4	1,2-Dibromoethane	ND		4.6	0.59
95-50-1	1,2-Dichlorobenzene	ND		4.6	0.36
107-06-2	1,2-Dichloroethane	ND		4.6	0.23
78-87-5	1,2-Dichloropropane	ND		4.6	2.3
541-73-1	1,3-Dichlorobenzene	ND		4.6	0.23
106-46-7	1,4-Dichlorobenzene	ND		4.6	0.64
78-93-3	2-Butanone (MEK)	ND		23	1.7
591-78-6	2-Hexanone	ND		23	2.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		23	1.5
67-64-1	Acetone	ND		23	3.8
71-43-2	Benzene	ND		4.6	0.22
75-27-4	Bromodichloromethane	ND		4.6	0.61
75-25-2	Bromoform	ND		4.6	2.3
74-83-9	Bromomethane	ND		4.6	0.41
75-15-0	Carbon disulfide	ND		4.6	2.3
56-23-5	Carbon tetrachloride	ND		4.6	0.44
108-90-7	Chlorobenzene	ND		4.6	0.60
75-00-3	Chloroethane	ND		4.6	1.0
67-66-3	Chloroform	ND		4.6	0.28
74-87-3	Chloromethane	ND		4.6	0.28
156-59-2	cis-1,2-Dichloroethene	ND		4.6	0.58
10061-01-5	cis-1,3-Dichloropropene	ND		4.6	0.66
110-82-7	Cyclohexane	ND		4.6	0.64
124-48-1	Dibromochloromethane	ND		4.6	0.58
75-71-8	Dichlorodifluoromethane	ND		4.6	0.38
100-41-4	Ethylbenzene	ND		4.6	0.31
98-82-8	Isopropylbenzene	ND		4.6	0.69

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-106 | Lab Sample ID: 480-133590-2

Matrix: Solid | Lab File ID: F1498.D

Analysis Method: 8260C | Date Collected: 04/04/2018 08:30

Sample wt/vol: 6.975(g) | Date Analyzed: 04/05/2018 12:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 21.4 | Level: (low/med) Low

Analysis Batch No.: 407281 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		23	2.8
1634-04-4	Methyl tert-butyl ether	ND		4.6	0.45
108-87-2	Methylcyclohexane	ND		4.6	0.69
75-09-2	Methylene Chloride	ND		4.6	2.1
100-42-5	Styrene	ND		4.6	0.23
127-18-4	Tetrachloroethene	ND		4.6	0.61
108-88-3	Toluene	ND		4.6	0.34
156-60-5	trans-1,2-Dichloroethene	ND		4.6	0.47
10061-02-6	trans-1,3-Dichloropropene	ND		4.6	2.0
79-01-6	Trichloroethene	ND		4.6	1.0
75-69-4	Trichlorofluoromethane	ND		4.6	0.43
75-01-4	Vinyl chloride	ND		4.6	0.56
1330-20-7	Xylenes, Total	ND		9.1	0.77
123-91-1	1,4-Dioxane	~~ND~~ R		~~91~~	~~20~~

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		64-126
460-00-4	4-Bromofluorobenzene (Surr)	92		72-126
1868-53-7	Dibromofluoromethane (Surr)	103		60-140
2037-26-5	Toluene-d8 (Surr)	108		71-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-105 | Lab Sample ID: 480-133590-3

Matrix: Solid | Lab File ID: F1499.D

Analysis Method: 8260C | Date Collected: 04/04/2018 08:45

Sample wt/vol: 6.037(g) | Date Analyzed: 04/05/2018 12:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 13.3 | Level: (low/med) Low

Analysis Batch No.: 407281 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		4.8	0.35
79-34-5	1,1,2,2-Tetrachloroethane	ND		4.8	0.78
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.8	1.1
79-00-5	1,1,2-Trichloroethane	ND		4.8	0.62
75-34-3	1,1-Dichloroethane	ND		4.8	0.58
75-35-4	1,1-Dichloroethene	ND		4.8	0.58
120-82-1	1,2,4-Trichlorobenzene	ND		4.8	0.29
96-12-8	1,2-Dibromo-3-Chloropropane	ND		4.8	2.4
106-93-4	1,2-Dibromoethane	ND		4.8	0.61
95-50-1	1,2-Dichlorobenzene	ND		4.8	0.37
107-06-2	1,2-Dichloroethane	ND		4.8	0.24
78-87-5	1,2-Dichloropropane	ND		4.8	2.4
541-73-1	1,3-Dichlorobenzene	ND		4.8	0.25
106-46-7	1,4-Dichlorobenzene	ND		4.8	0.67
78-93-3	2-Butanone (MEK)	ND		24	1.7
591-78-6	2-Hexanone	ND		24	2.4
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		24	1.6
67-64-1	Acetone	ND		24	4.0
71-43-2	Benzene	ND		4.8	0.23
75-27-4	Bromodichloromethane	ND		4.8	0.64
75-25-2	Bromoform	ND		4.8	2.4
74-83-9	Bromomethane	ND		4.8	0.43
75-15-0	Carbon disulfide	ND		4.8	2.4
56-23-5	Carbon tetrachloride	ND		4.8	0.46
108-90-7	Chlorobenzene	ND		4.8	0.63
75-00-3	Chloroethane	ND		4.8	1.1
67-66-3	Chloroform	ND		4.8	0.30
74-87-3	Chloromethane	ND		4.8	0.29
156-59-2	cis-1,2-Dichloroethene	ND		4.8	0.61
10061-01-5	cis-1,3-Dichloropropene	ND		4.8	0.69
110-82-7	Cyclohexane	ND		4.8	0.67
124-48-1	Dibromochloromethane	ND		4.8	0.61
75-71-8	Dichlorodifluoromethane	ND		4.8	0.39
100-41-4	Ethylbenzene	ND		4.8	0.33
98-82-8	Isopropylbenzene	ND		4.8	0.72

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-105 | Lab Sample ID: 480-133590-3

Matrix: Solid | Lab File ID: F1499.D

Analysis Method: 8260C | Date Collected: 04/04/2018 08:45

Sample wt/vol: 6.037(g) | Date Analyzed: 04/05/2018 12:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 13.3 | Level: (low/med) Low

Analysis Batch No.: 407281 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		24	2.9
1634-04-4	Methyl tert-butyl ether	ND		4.8	0.47
108-87-2	Methylcyclohexane	ND		4.8	0.73
75-09-2	Methylene Chloride	ND		4.8	2.2
100-42-5	Styrene	ND		4.8	0.24
127-18-4	Tetrachloroethene	ND		4.8	0.64
108-88-3	Toluene	ND		4.8	0.36
156-60-5	trans-1,2-Dichloroethene	ND		4.8	0.49
10061-02-6	trans-1,3-Dichloropropene	ND		4.8	2.1
79-01-6	Trichloroethene	ND		4.8	1.1
75-69-4	Trichlorofluoromethane	ND		4.8	0.45
75-01-4	Vinyl chloride	ND		4.8	0.58
1330-20-7	Xylenes, Total	ND		9.6	0.80
123-91-1	1,4-Dioxane	ND	R ✓	~~96~~	~~21~~

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		64-126
460-00-4	4-Bromofluorobenzene (Surr)	92		72-126
1868-53-7	Dibromofluoromethane (Surr)	103		60-140
2037-26-5	Toluene-d8 (Surr)	105		71-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133608-1

SDG No.:

Client Sample ID: HFL-MW-104 (9-11) | Lab Sample ID: 480-133608-1

Matrix: Solid | Lab File ID: F1500.D

Analysis Method: 8260C | Date Collected: 04/04/2018 14:00

Sample wt/vol: 7.254(g) | Date Analyzed: 04/05/2018 13:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 30.2 | Level: (low/med) Low

Analysis Batch No.: 407281 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		4.9	0.36
79-34-5	1,1,2,2-Tetrachloroethane	ND		4.9	0.80
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.9	1.1
79-00-5	1,1,2-Trichloroethane	ND		4.9	0.64
75-34-3	1,1-Dichloroethane	ND		4.9	0.60
75-35-4	1,1-Dichloroethene	ND		4.9	0.60
120-82-1	1,2,4-Trichlorobenzene	ND		4.9	0.30
96-12-8	1,2-Dibromo-3-Chloropropane	ND		4.9	2.5
106-93-4	1,2-Dibromoethane	ND		4.9	0.63
95-50-1	1,2-Dichlorobenzene	ND		4.9	0.39
107-06-2	1,2-Dichloroethane	ND		4.9	0.25
78-87-5	1,2-Dichloropropane	ND		4.9	2.5
541-73-1	1,3-Dichlorobenzene	ND		4.9	0.25
106-46-7	1,4-Dichlorobenzene	ND		4.9	0.69
78-93-3	2-Butanone (MEK)	ND		25	1.8
591-78-6	2-Hexanone	ND		25	2.5
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		25	1.6
67-64-1	Acetone	ND		25	4.2
71-43-2	Benzene	ND		4.9	0.24
75-27-4	Bromodichloromethane	ND		4.9	0.66
75-25-2	Bromoform	ND		4.9	2.5
74-83-9	Bromomethane	ND		4.9	0.44
75-15-0	Carbon disulfide	ND		4.9	2.5
56-23-5	Carbon tetrachloride	ND		4.9	0.48
108-90-7	Chlorobenzene	ND		4.9	0.65
75-00-3	Chloroethane	ND		4.9	1.1
67-66-3	Chloroform	ND		4.9	0.31
74-87-3	Chloromethane	ND		4.9	0.30
156-59-2	cis-1,2-Dichloroethene	ND		4.9	0.63
10061-01-5	cis-1,3-Dichloropropene	ND		4.9	0.71
110-82-7	Cyclohexane	ND		4.9	0.69
124-48-1	Dibromochloromethane	ND		4.9	0.63
75-71-8	Dichlorodifluoromethane	ND		4.9	0.41
100-41-4	Ethylbenzene	ND		4.9	0.34
98-82-8	Isopropylbenzene	ND		4.9	0.74

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133608-1

SDG No.:

Client Sample ID: HFL-MW-104 (9-11) | Lab Sample ID: 480-133608-1

Matrix: Solid | Lab File ID: F1500.D

Analysis Method: 8260C | Date Collected: 04/04/2018 14:00

Sample wt/vol: 7.254(g) | Date Analyzed: 04/05/2018 13:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 30.2 | Level: (low/med) Low

Analysis Batch No.: 407281 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		25	3.0
1634-04-4	Methyl tert-butyl ether	ND		4.9	0.48
108-87-2	Methylcyclohexane	ND		4.9	0.75
75-09-2	Methylene Chloride	4.5	B	4.9	2.3
100-42-5	Styrene	ND		4.9	0.25
127-18-4	Tetrachloroethene	ND		4.9	0.66
108-88-3	Toluene	ND		4.9	0.37
156-60-5	trans-1,2-Dichloroethene	ND		4.9	0.51
10061-02-6	trans-1,3-Dichloropropene	ND		4.9	2.2
79-01-6	Trichloroethene	ND		4.9	1.1
75-69-4	Trichlorofluoromethane	ND		4.9	0.47
75-01-4	Vinyl chloride	ND		4.9	0.60
1330-20-7	Xylenes, Total	ND		9.9	0.83
123-91-1	1,4-Dioxane	ND		99	22

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		64-126
460-00-4	4-Bromofluorobenzene (Surr)	97		72-126
1868-53-7	Dibromofluoromethane (Surr)	101		60-140
2037-26-5	Toluene-d8 (Surr)	102		71-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134080-1

SDG No.:

Client Sample ID: HFL-MW-105(22-24) | Lab Sample ID: 480-134080-1

Matrix: Solid | Lab File ID: F1701.D

Analysis Method: 8260C | Date Collected: 04/11/2018 16:45

Sample wt/vol: 6.738(g) | Date Analyzed: 04/13/2018 12:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 20.7 | Level: (low/med) Low

Analysis Batch No.: 408660 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		4.7	0.34
79-34-5	1,1,2,2-Tetrachloroethane	ND	F1 UJ ✓	4.7	0.76
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.7	1.1
79-00-5	1,1,2-Trichloroethane	ND		4.7	0.61
75-34-3	1,1-Dichloroethane	ND		4.7	0.57
75-35-4	1,1-Dichloroethene	ND		4.7	0.57
120-82-1	1,2,4-Trichlorobenzene	ND		4.7	0.28
96-12-8	1,2-Dibromo-3-Chloropropane	ND	F1 UJ ✓	4.7	2.3
106-93-4	1,2-Dibromoethane	ND		4.7	0.60
95-50-1	1,2-Dichlorobenzene	ND		4.7	0.37
107-06-2	1,2-Dichloroethane	ND		4.7	0.23
78-87-5	1,2-Dichloropropane	ND		4.7	2.3
541-73-1	1,3-Dichlorobenzene	ND		4.7	0.24
106-46-7	1,4-Dichlorobenzene	ND		4.7	0.66
78-93-3	2-Butanone (MEK)	ND	F1 UJ ✓	23	1.7
591-78-6	2-Hexanone	ND		23	2.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		23	1.5
67-64-1	Acetone	ND		23	3.9
71-43-2	Benzene	ND		4.7	0.23
75-27-4	Bromodichloromethane	ND		4.7	0.63
75-25-2	Bromoform	ND		4.7	2.3
74-83-9	Bromomethane	ND		4.7	0.42
75-15-0	Carbon disulfide	ND		4.7	2.3
56-23-5	Carbon tetrachloride	ND		4.7	0.45
108-90-7	Chlorobenzene	ND		4.7	0.62
75-00-3	Chloroethane	ND		4.7	1.1
67-66-3	Chloroform	ND		4.7	0.29
74-87-3	Chloromethane	ND		4.7	0.28
156-59-2	cis-1,2-Dichloroethene	ND		4.7	0.60
10061-01-5	cis-1,3-Dichloropropene	ND		4.7	0.67
110-82-7	Cyclohexane	ND		4.7	0.66
124-48-1	Dibromochloromethane	ND		4.7	0.60
75-71-8	Dichlorodifluoromethane	ND		4.7	0.39
100-41-4	Ethylbenzene	ND		4.7	0.32
98-82-8	Isopropylbenzene	ND		4.7	0.71

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134080-1

SDG No.:

Client Sample ID: HFL-MW-105(22-24) | Lab Sample ID: 480-134080-1

Matrix: Solid | Lab File ID: F1701.D

Analysis Method: 8260C | Date Collected: 04/11/2018 16:45

Sample wt/vol: 6.738(g) | Date Analyzed: 04/13/2018 12:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 20.7 | Level: (low/med) Low

Analysis Batch No.: 408660 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		23	2.8
1634-04-4	Methyl tert-butyl ether	ND		4.7	0.46
108-87-2	Methylcyclohexane	ND		4.7	0.71
75-09-2	Methylene Chloride	ND		4.7	2.2
100-42-5	Styrene	ND		4.7	0.23
127-18-4	Tetrachloroethene	ND		4.7	0.63
108-88-3	Toluene	ND		4.7	0.35
156-60-5	trans-1,2-Dichloroethene	ND		4.7	0.48
10061-02-6	trans-1,3-Dichloropropene	ND		4.7	2.1
79-01-6	Trichloroethene	ND		4.7	1.0
75-69-4	Trichlorofluoromethane	ND		4.7	0.44
75-01-4	Vinyl chloride	ND		4.7	0.57
1330-20-7	Xylenes, Total	ND		9.4	0.79
123-91-1	1,4-Dioxane	ND	F1 R ✓	94	20

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		64-126
460-00-4	4-Bromofluorobenzene (Surr)	101		72-126
1868-53-7	Dibromofluoromethane (Surr)	104		60-140
2037-26-5	Toluene-d8 (Surr)	103		71-125

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-104 | Lab Sample ID: 480-133590-1

Matrix: Solid | Lab File ID: X210403.D

Analysis Method: 8270D | Date Collected: 04/04/2018 08:15

Extract. Method: 3550C | Date Extracted: 04/05/2018 06:39

Sample wt/vol: 30.47(g) | Date Analyzed: 04/06/2018 02:50

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407454 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	Biphenyl	ND		210	31
108-60-1	bis (2-chloroisopropyl) ether	ND		210	42
95-95-4	2,4,5-Trichlorophenol	ND		210	57
88-06-2	2,4,6-Trichlorophenol	ND		210	42
120-83-2	2,4-Dichlorophenol	ND		210	22
105-67-9	2,4-Dimethylphenol	ND		210	51
51-28-5	2,4-Dinitrophenol	ND		2100	980
121-14-2	2,4-Dinitrotoluene	ND		210	44
606-20-2	2,6-Dinitrotoluene	ND		210	25
91-58-7	2-Chloronaphthalene	ND		210	35
95-57-8	2-Chlorophenol	ND		210	39
95-48-7	2-Methylphenol	ND		210	25
91-57-6	2-Methylnaphthalene	ND		210	42
88-74-4	2-Nitroaniline	ND		410	31
88-75-5	2-Nitrophenol	ND		210	60
91-94-1	3,3'-Dichlorobenzidine	ND		410	250
99-09-2	3-Nitroaniline	ND		410	59
534-52-1	4,6-Dinitro-2-methylphenol	ND		410	210
101-55-3	4-Bromophenyl phenyl ether	ND		210	30
59-50-7	4-Chloro-3-methylphenol	ND		210	52
106-47-8	4-Chloroaniline	ND		210	52
7005-72-3	4-Chlorophenyl phenyl ether	ND		210	26
106-44-5	4-Methylphenol	ND		410	25
100-01-6	4-Nitroaniline	ND		410	110
100-02-7	4-Nitrophenol	ND		410	150
83-32-9	Acenaphthene	ND		210	31
208-96-8	Acenaphthylene	ND		210	27
98-86-2	Acetophenone	ND		210	29
120-12-7	Anthracene	ND		210	52
1912-24-9	Atrazine	ND		210	74
100-52-7	Benzaldehyde	ND		210	170
56-55-3	Benzo[a]anthracene	ND		210	21
50-32-8	Benzo[a]pyrene	ND		210	31
205-99-2	Benzo[b]fluoranthene	ND		210	34

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-104 | Lab Sample ID: 480-133590-1

Matrix: Solid | Lab File ID: X210403.D

Analysis Method: 8270D | Date Collected: 04/04/2018 08:15

Extract. Method: 3550C | Date Extracted: 04/05/2018 06:39

Sample wt/vol: 30.47(g) | Date Analyzed: 04/06/2018 02:50

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407454 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
191-24-2	Benzo[g,h,i]perylene	ND		210	22
207-08-9	Benzo[k]fluoranthene	ND		210	27
111-91-1	Bis(2-chloroethoxy)methane	ND		210	45
111-44-4	Bis(2-chloroethyl)ether	ND		210	27
117-81-7	Bis(2-ethylhexyl) phthalate	ND		210	72
85-68-7	Butyl benzyl phthalate	ND		210	35
105-60-2	Caprolactam	ND		210	64
86-74-8	Carbazole	ND		210	25
218-01-9	Chrysene	ND		210	47
53-70-3	Dibenz(a,h)anthracene	ND		210	37
84-74-2	Di-n-butyl phthalate	ND		210	36
117-84-0	Di-n-octyl phthalate	ND		210	25
132-64-9	Dibenzofuran	ND		210	25
84-66-2	Diethyl phthalate	ND		210	27
131-11-3	Dimethyl phthalate	ND		210	25
206-44-0	Fluoranthene	ND		210	22
86-73-7	Fluorene	ND		210	25
118-74-1	Hexachlorobenzene	ND		210	29
87-68-3	Hexachlorobutadiene	ND		210	31
77-47-4	Hexachlorocyclopentadiene	ND		210	29
67-72-1	Hexachloroethane	ND		210	27
193-39-5	Indeno[1,2,3-cd]pyrene	ND		210	26
78-59-1	Isophorone	ND		210	45
621-64-7	N-Nitrosodi-n-propylamine	ND		210	36
86-30-6	N-Nitrosodiphenylamine	ND		210	170
91-20-3	Naphthalene	ND		210	27
98-95-3	Nitrobenzene	ND		210	24
87-86-5	Pentachlorophenol	ND		410	210
85-01-8	Phenanthrene	ND		210	31
108-95-2	Phenol	ND		210	32
129-00-0	Pyrene	ND		210	25
123-91-1	1,4-Dioxane	ND		250	69

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-106 | Lab Sample ID: 480-133590-2

Matrix: Solid | Lab File ID: X210404.D

Analysis Method: 8270D | Date Collected: 04/04/2018 08:30

Extract. Method: 3550C | Date Extracted: 04/05/2018 06:39

Sample wt/vol: 30.26(g) | Date Analyzed: 04/06/2018 03:16

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407454 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	Biphenyl	ND		1100	160
108-60-1	bis (2-chloroisopropyl) ether	ND		1100	210
95-95-4	2,4,5-Trichlorophenol	ND		1100	290
88-06-2	2,4,6-Trichlorophenol	ND		1100	210
120-83-2	2,4-Dichlorophenol	ND		1100	110
105-67-9	2,4-Dimethylphenol	ND		1100	260
51-28-5	2,4-Dinitrophenol	ND		10000	4900
121-14-2	2,4-Dinitrotoluene	ND		1100	220
606-20-2	2,6-Dinitrotoluene	ND		1100	130
91-58-7	2-Chloronaphthalene	ND		1100	180
95-57-8	2-Chlorophenol	ND		1100	200
95-48-7	2-Methylphenol	ND		1100	130
91-57-6	2-Methylnaphthalene	ND		1100	210
88-74-4	2-Nitroaniline	ND		2100	160
88-75-5	2-Nitrophenol	ND		1100	300
91-94-1	3,3'-Dichlorobenzidine	ND		2100	1300
99-09-2	3-Nitroaniline	ND		2100	300
534-52-1	4,6-Dinitro-2-methylphenol	ND		2100	1100
101-55-3	4-Bromophenyl phenyl ether	ND		1100	150
59-50-7	4-Chloro-3-methylphenol	ND		1100	260
106-47-8	4-Chloroaniline	ND		1100	260
7005-72-3	4-Chlorophenyl phenyl ether	ND		1100	130
106-44-5	4-Methylphenol	ND		2100	130
100-01-6	4-Nitroaniline	ND		2100	560
100-02-7	4-Nitrophenol	ND		2100	750
83-32-9	Acenaphthene	ND		1100	160
208-96-8	Acenaphthylene	ND		1100	140
98-86-2	Acetophenone	ND		1100	150
120-12-7	Anthracene	ND		1100	260
1912-24-9	Atrazine	ND		1100	370
100-52-7	Benzaldehyde	ND		1100	850
56-55-3	Benzo[a]anthracene	ND		1100	110
50-32-8	Benzo[a]pyrene	ND		1100	160
205-99-2	Benzo[b]fluoranthene	ND		1100	170

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-106 | Lab Sample ID: 480-133590-2

Matrix: Solid | Lab File ID: X210404.D

Analysis Method: 8270D | Date Collected: 04/04/2018 08:30

Extract. Method: 3550C | Date Extracted: 04/05/2018 06:39

Sample wt/vol: 30.26(g) | Date Analyzed: 04/06/2018 03:16

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407454 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
191-24-2	Benzo[g,h,i]perylene	ND		1100	110
207-08-9	Benzo[k]fluoranthene	ND		1100	140
111-91-1	Bis(2-chloroethoxy)methane	ND		1100	230
111-44-4	Bis(2-chloroethyl)ether	ND		1100	140
117-81-7	Bis(2-ethylhexyl) phthalate	ND		1100	370
85-68-7	Butyl benzyl phthalate	ND		1100	180
105-60-2	Caprolactam	ND		1100	320
86-74-8	Carbazole	ND		1100	130
218-01-9	Chrysene	ND		1100	240
53-70-3	Dibenz(a,h)anthracene	ND		1100	190
84-74-2	Di-n-butyl phthalate	ND		1100	180
117-84-0	Di-n-octyl phthalate	ND		1100	130
132-64-9	Dibenzofuran	ND		1100	130
84-66-2	Diethyl phthalate	ND		1100	140
131-11-3	Dimethyl phthalate	ND		1100	130
206-44-0	Fluoranthene	ND		1100	110
86-73-7	Fluorene	ND		1100	130
118-74-1	Hexachlorobenzene	ND		1100	150
87-68-3	Hexachlorobutadiene	ND		1100	160
77-47-4	Hexachlorocyclopentadiene	ND		1100	150
67-72-1	Hexachloroethane	ND		1100	140
193-39-5	Indeno[1,2,3-cd]pyrene	ND		1100	130
78-59-1	Isophorone	ND		1100	230
621-64-7	N-Nitrosodi-n-propylamine	ND		1100	180
86-30-6	N-Nitrosodiphenylamine	ND		1100	870
91-20-3	Naphthalene	ND		1100	140
98-95-3	Nitrobenzene	ND		1100	120
87-86-5	Pentachlorophenol	ND		2100	1100
85-01-8	Phenanthrene	ND		1100	160
108-95-2	Phenol	ND		1100	160
129-00-0	Pyrene	ND		1100	130
123-91-1	1,4-Dioxane	ND		1300	350

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1
SDG No.:
Client Sample ID: HFL-SS-105 | Lab Sample ID: 480-133590-3
Matrix: Solid | Lab File ID: X210405.D
Analysis Method: 8270D | Date Collected: 04/04/2018 08:45
Extract. Method: 3550C | Date Extracted: 04/05/2018 06:39
Sample wt/vol: 30.68(g) | Date Analyzed: 04/06/2018 03:42
Con. Extract Vol.: 1(mL) | Dilution Factor: 5
Injection Volume: 1(uL) | Level: (low/med) Low
% Moisture: 13.3 | GPC Cleanup:(Y/N) N
Analysis Batch No.: 407454 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	Biphenyl	ND		960	140
108-60-1	bis (2-chloroisopropyl) ether	ND		960	190
95-95-4	2,4,5-Trichlorophenol	ND		960	260
88-06-2	2,4,6-Trichlorophenol	ND		960	190
120-83-2	2,4-Dichlorophenol	ND		960	100
105-67-9	2,4-Dimethylphenol	ND		960	230
51-28-5	2,4-Dinitrophenol	ND		9400	4400
121-14-2	2,4-Dinitrotoluene	ND		960	200
606-20-2	2,6-Dinitrotoluene	ND		960	110
91-58-7	2-Chloronaphthalene	ND		960	160
95-57-8	2-Chlorophenol	ND		960	170
95-48-7	2-Methylphenol	ND		960	110
91-57-6	2-Methylnaphthalene	ND		960	190
88-74-4	2-Nitroaniline	ND		1900	140
88-75-5	2-Nitrophenol	ND		960	270
91-94-1	3,3'-Dichlorobenzidine	ND		1900	1100
99-09-2	3-Nitroaniline	ND		1900	270
534-52-1	4,6-Dinitro-2-methylphenol	ND		1900	960
101-55-3	4-Bromophenyl phenyl ether	ND		960	140
59-50-7	4-Chloro-3-methylphenol	ND		960	240
106-47-8	4-Chloroaniline	ND		960	240
7005-72-3	4-Chlorophenyl phenyl ether	ND		960	120
106-44-5	4-Methylphenol	ND		1900	110
100-01-6	4-Nitroaniline	ND		1900	500
100-02-7	4-Nitrophenol	ND		1900	670
83-32-9	Acenaphthene	ND		960	140
208-96-8	Acenaphthylene	ND		960	120
98-86-2	Acetophenone	ND		960	130
120-12-7	Anthracene	ND		960	240
1912-24-9	Atrazine	ND		960	330
100-52-7	Benzaldehyde	ND		960	760
56-55-3	Benzo[a]anthracene	180	J	960	96
50-32-8	Benzo[a]pyrene	ND		960	140
205-99-2	Benzo[b]fluoranthene	250	J	960	150

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-105 | Lab Sample ID: 480-133590-3

Matrix: Solid | Lab File ID: X210405.D

Analysis Method: 8270D | Date Collected: 04/04/2018 08:45

Extract. Method: 3550C | Date Extracted: 04/05/2018 06:39

Sample wt/vol: 30.68(g) | Date Analyzed: 04/06/2018 03:42

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407454 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
191-24-2	Benzo[g,h,i]perylene	ND		960	100
207-08-9	Benzo[k]fluoranthene	ND		960	120
111-91-1	Bis(2-chloroethoxy)methane	ND		960	200
111-44-4	Bis(2-chloroethyl)ether	ND		960	120
117-81-7	Bis(2-ethylhexyl) phthalate	ND		960	330
85-68-7	Butyl benzyl phthalate	ND		960	160
105-60-2	Caprolactam	ND		960	290
86-74-8	Carbazole	ND		960	110
218-01-9	Chrysene	230	J	960	210
53-70-3	Dibenz(a,h)anthracene	ND		960	170
84-74-2	Di-n-butyl phthalate	ND		960	160
117-84-0	Di-n-octyl phthalate	ND		960	110
132-64-9	Dibenzofuran	ND		960	110
84-66-2	Diethyl phthalate	ND		960	120
131-11-3	Dimethyl phthalate	ND		960	110
206-44-0	Fluoranthene	400	J	960	100
86-73-7	Fluorene	ND		960	110
118-74-1	Hexachlorobenzene	ND		960	130
87-68-3	Hexachlorobutadiene	ND		960	140
77-47-4	Hexachlorocyclopentadiene	ND		960	130
67-72-1	Hexachloroethane	ND		960	120
193-39-5	Indeno[1,2,3-cd]pyrene	180	J	960	120
78-59-1	Isophorone	ND		960	200
621-64-7	N-Nitrosodi-n-propylamine	ND		960	160
86-30-6	N-Nitrosodiphenylamine	ND		960	780
91-20-3	Naphthalene	ND		960	120
98-95-3	Nitrobenzene	ND		960	110
87-86-5	Pentachlorophenol	ND		1900	960
85-01-8	Phenanthrene	ND		960	140
108-95-2	Phenol	ND		960	150
129-00-0	Pyrene	320	J	960	110
123-91-1	1,4-Dioxane	ND		1100	310

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133608-1

SDG No.:

Client Sample ID: HFL-MW-104 (9-11) | Lab Sample ID: 480-133608-1

Matrix: Solid | Lab File ID: X210406.D

Analysis Method: 8270D | Date Collected: 04/04/2018 14:00

Extract. Method: 3550C | Date Extracted: 04/05/2018 06:39

Sample wt/vol: 30.44(g) | Date Analyzed: 04/06/2018 04:09

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 30.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407454 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	Biphenyl	ND		240	35
108-60-1	bis (2-chloroisopropyl) ether	ND		240	48
95-95-4	2,4,5-Trichlorophenol	ND		240	65
88-06-2	2,4,6-Trichlorophenol	ND		240	48
120-83-2	2,4-Dichlorophenol	ND		240	25
105-67-9	2,4-Dimethylphenol	ND		240	58
51-28-5	2,4-Dinitrophenol	ND		2300	1100
121-14-2	2,4-Dinitrotoluene	ND		240	49
606-20-2	2,6-Dinitrotoluene	ND		240	28
91-58-7	2-Chloronaphthalene	ND		240	40
95-57-8	2-Chlorophenol	ND		240	44
95-48-7	2-Methylphenol	ND		240	28
91-57-6	2-Methylnaphthalene	ND		240	48
88-74-4	2-Nitroaniline	ND		470	35
88-75-5	2-Nitrophenol	ND		240	68
91-94-1	3,3'-Dichlorobenzidine	ND		470	280
99-09-2	3-Nitroaniline	ND		470	66
534-52-1	4,6-Dinitro-2-methylphenol	ND		470	240
101-55-3	4-Bromophenyl phenyl ether	ND		240	34
59-50-7	4-Chloro-3-methylphenol	ND		240	59
106-47-8	4-Chloroaniline	ND		240	59
7005-72-3	4-Chlorophenyl phenyl ether	ND		240	30
106-44-5	4-Methylphenol	ND		470	28
100-01-6	4-Nitroaniline	ND		470	130
100-02-7	4-Nitrophenol	ND		470	170
83-32-9	Acenaphthene	ND		240	35
208-96-8	Acenaphthylene	ND		240	31
98-86-2	Acetophenone	ND		240	32
120-12-7	Anthracene	ND		240	59
1912-24-9	Atrazine	ND		240	83
100-52-7	Benzaldehyde	ND		240	190
56-55-3	Benzo[a]anthracene	ND		240	24
50-32-8	Benzo[a]pyrene	ND		240	35
205-99-2	Benzo[b]fluoranthene	ND		240	38

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133608-1

SDG No.:

Client Sample ID: HFL-MW-104 (9-11) | Lab Sample ID: 480-133608-1

Matrix: Solid | Lab File ID: X210406.D

Analysis Method: 8270D | Date Collected: 04/04/2018 14:00

Extract. Method: 3550C | Date Extracted: 04/05/2018 06:39

Sample wt/vol: 30.44(g) | Date Analyzed: 04/06/2018 04:09

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 30.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407454 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
191-24-2	Benzo[g,h,i]perylene	ND		240	25
207-08-9	Benzo[k]fluoranthene	ND		240	31
111-91-1	Bis(2-chloroethoxy)methane	ND		240	51
111-44-4	Bis(2-chloroethyl)ether	ND		240	31
117-81-7	Bis(2-ethylhexyl) phthalate	ND		240	82
85-68-7	Butyl benzyl phthalate	ND		240	40
105-60-2	Caprolactam	ND		240	72
86-74-8	Carbazole	ND		240	28
218-01-9	Chrysene	ND		240	54
53-70-3	Dibenz(a,h)anthracene	ND		240	42
84-74-2	Di-n-butyl phthalate	ND		240	41
117-84-0	Di-n-octyl phthalate	ND		240	28
132-64-9	Dibenzofuran	ND		240	28
84-66-2	Diethyl phthalate	ND		240	31
131-11-3	Dimethyl phthalate	ND		240	28
206-44-0	Fluoranthene	ND		240	25
86-73-7	Fluorene	ND		240	28
118-74-1	Hexachlorobenzene	ND		240	32
87-68-3	Hexachlorobutadiene	ND		240	35
77-47-4	Hexachlorocyclopentadiene	ND		240	32
67-72-1	Hexachloroethane	ND		240	31
193-39-5	Indeno[1,2,3-cd]pyrene	ND		240	30
78-59-1	Isophorone	ND		240	51
621-64-7	N-Nitrosodi-n-propylamine	ND		240	41
86-30-6	N-Nitrosodiphenylamine	ND		240	190
91-20-3	Naphthalene	ND		240	31
98-95-3	Nitrobenzene	ND		240	27
87-86-5	Pentachlorophenol	ND		470	240
85-01-8	Phenanthrene	ND		240	35
108-95-2	Phenol	ND		240	37
129-00-0	Pyrene	ND		240	28
123-91-1	1,4-Dioxane	ND		280	78

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134080-1

SDG No.:

Client Sample ID: HFL-MW-105(22-24) | Lab Sample ID: 480-134080-1

Matrix: Solid | Lab File ID: X210612.D

Analysis Method: 8270D | Date Collected: 04/11/2018 16:45

Extract. Method: 3550C | Date Extracted: 04/14/2018 06:42

Sample wt/vol: 30.58(g) | Date Analyzed: 04/16/2018 20:06

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 20.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 409039 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	Biphenyl	ND		210	31
108-60-1	bis (2-chloroisopropyl) ether	~~ND~~ UJ		210	42
95-95-4	2,4,5-Trichlorophenol	ND		210	57
88-06-2	2,4,6-Trichlorophenol	ND		210	42
120-83-2	2,4-Dichlorophenol	ND		210	22
105-67-9	2,4-Dimethylphenol	ND		210	51
51-28-5	2,4-Dinitrophenol	ND		2100	970
121-14-2	2,4-Dinitrotoluene	ND		210	43
606-20-2	2,6-Dinitrotoluene	ND		210	25
91-58-7	2-Chloronaphthalene	ND		210	35
95-57-8	2-Chlorophenol	ND		210	38
95-48-7	2-Methylphenol	ND		210	25
91-57-6	2-Methylnaphthalene	ND		210	42
88-74-4	2-Nitroaniline	ND		410	31
88-75-5	2-Nitrophenol	ND		210	59
91-94-1	3,3'-Dichlorobenzidine	ND		410	250
99-09-2	3-Nitroaniline	ND		410	58
534-52-1	4,6-Dinitro-2-methylphenol	ND		410	210
101-55-3	4-Bromophenyl phenyl ether	ND		210	30
59-50-7	4-Chloro-3-methylphenol	ND		210	52
106-47-8	4-Chloroaniline	ND		210	52
7005-72-3	4-Chlorophenyl phenyl ether	ND		210	26
106-44-5	4-Methylphenol	ND		410	25
100-01-6	4-Nitroaniline	ND		410	110
100-02-7	4-Nitrophenol	ND		410	150
83-32-9	Acenaphthene	ND		210	31
208-96-8	Acenaphthylene	ND		210	27
98-86-2	Acetophenone	ND		210	28
120-12-7	Anthracene	ND		210	52
1912-24-9	Atrazine	ND		210	73
100-52-7	Benzaldehyde	ND		210	170
56-55-3	Benzo[a]anthracene	ND		210	21
50-32-8	Benzo[a]pyrene	ND		210	31
205-99-2	Benzo[b]fluoranthene	ND		210	33

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134080-1

SDG No.:

Client Sample ID: HFL-MW-105(22-24) | Lab Sample ID: 480-134080-1

Matrix: Solid | Lab File ID: X210612.D

Analysis Method: 8270D | Date Collected: 04/11/2018 16:45

Extract. Method: 3550C | Date Extracted: 04/14/2018 06:42

Sample wt/vol: 30.58(g) | Date Analyzed: 04/16/2018 20:06

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 20.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 409039 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
191-24-2	Benzo[g,h,i]perylene	ND		210	22
207-08-9	Benzo[k]fluoranthene	ND		210	27
111-91-1	Bis(2-chloroethoxy)methane	ND		210	45
111-44-4	Bis(2-chloroethyl)ether	ND		210	27
117-81-7	Bis(2-ethylhexyl) phthalate	ND		210	72
85-68-7	Butyl benzyl phthalate	ND		210	35
105-60-2	Caprolactam	ND		210	63
86-74-8	Carbazole	ND		210	25
218-01-9	Chrysene	ND		210	47
53-70-3	Dibenz(a,h)anthracene	ND		210	37
84-74-2	Di-n-butyl phthalate	ND		210	36
117-84-0	Di-n-octyl phthalate	ND		210	25
132-64-9	Dibenzofuran	ND		210	25
84-66-2	Diethyl phthalate	ND		210	27
131-11-3	Dimethyl phthalate	ND		210	25
206-44-0	Fluoranthene	ND		210	22
86-73-7	Fluorene	ND		210	25
118-74-1	Hexachlorobenzene	ND		210	28
87-68-3	Hexachlorobutadiene	ND		210	31
77-47-4	Hexachlorocyclopentadiene	ND		210	28
67-72-1	Hexachloroethane	ND		210	27
193-39-5	Indeno[1,2,3-cd]pyrene	ND		210	26
78-59-1	Isophorone	ND		210	45
621-64-7	N-Nitrosodi-n-propylamine	ND		210	36
86-30-6	N-Nitrosodiphenylamine	ND		210	170
91-20-3	Naphthalene	ND		210	27
98-95-3	Nitrobenzene	ND		210	24
87-86-5	Pentachlorophenol	ND		410	210
85-01-8	Phenanthrene	ND		210	31
108-95-2	Phenol	ND		210	32
129-00-0	Pyrene	ND		210	25
123-91-1	1,4-Dioxane	ND		250	68

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-104 | Lab Sample ID: 480-133590-1

Matrix: Solid | Lab File ID: 25_06-095.D

Analysis Method: 8081B | Date Collected: 04/04/2018 08:15

Extraction Method: 3550C | Date Extracted: 04/05/2018 06:45

Sample wt/vol: 30.63(g) | Date Analyzed: 04/05/2018 22:19

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLPII ID: 0.53(mm)

% Moisture: 21.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407394 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
72-54-8	4,4'-DDD	ND		2.1	0.40
72-55-9	4,4'-DDE	ND		2.1	0.43
50-29-3	4,4'-DDT	ND		2.1	0.48
309-00-2	Aldrin	ND		2.1	0.51
319-84-6	alpha-BHC	ND		2.1	0.37
5103-71-9	cis-Chlordane	ND		2.1	1.0
319-85-7	beta-BHC	ND		2.1	0.37
319-86-8	delta-BHC	ND		2.1	0.39
60-57-1	Dieldrin	ND		2.1	0.50
959-98-8	Endosulfan I	ND		2.1	0.40
33213-65-9	Endosulfan II	ND		2.1	0.37
1031-07-8	Endosulfan sulfate	ND		2.1	0.39
72-20-8	Endrin	ND		2.1	0.41
7421-93-4	Endrin aldehyde	ND		2.1	0.53
53494-70-5	Endrin ketone	ND		2.1	0.51
58-89-9	gamma-BHC (Lindane)	ND		2.1	0.38
5103-74-2	trans-Chlordane	ND		2.1	0.66
76-44-8	Heptachlor	ND		2.1	0.45
1024-57-3	Heptachlor epoxide	ND		2.1	0.53
72-43-5	Methoxychlor	ND		2.1	0.42
8001-35-2	Toxaphene	ND		21	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	79		45-120
877-09-8	Tetrachloro-m-xylene	71		30-124

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-106 | Lab Sample ID: 480-133590-2

Matrix: Solid | Lab File ID: 25_06-094.D

Analysis Method: 8081B | Date Collected: 04/04/2018 08:30

Extraction Method: 3550C | Date Extracted: 04/05/2018 06:45

Sample wt/vol: 30.34(g) | Date Analyzed: 04/05/2018 21:59

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLPII ID: 0.53(mm)

% Moisture: 21.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407394 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
72-54-8	4,4'-DDD	ND		2.1	0.41
72-55-9	4,4'-DDE	ND		2.1	0.44
50-29-3	4,4'-DDT	ND		2.1	0.49
309-00-2	Aldrin	ND		2.1	0.52
319-84-6	alpha-BHC	ND		2.1	0.38
5103-71-9	cis-Chlordane	ND		2.1	1.0
319-85-7	beta-BHC	ND		2.1	0.38
319-86-8	delta-BHC	ND		2.1	0.39
60-57-1	Dieldrin	ND		2.1	0.50
959-98-8	Endosulfan I	ND		2.1	0.40
33213-65-9	Endosulfan II	ND		2.1	0.38
1031-07-8	Endosulfan sulfate	ND		2.1	0.39
72-20-8	Endrin	ND		2.1	0.42
7421-93-4	Endrin aldehyde	ND		2.1	0.54
53494-70-5	Endrin ketone	ND		2.1	0.52
58-89-9	gamma-BHC (Lindane)	ND		2.1	0.38
5103-74-2	trans-Chlordane	ND		2.1	0.67
76-44-8	Heptachlor	ND		2.1	0.45
1024-57-3	Heptachlor epoxide	ND		2.1	0.54
72-43-5	Methoxychlor	ND		2.1	0.43
8001-35-2	Toxaphene	ND		21	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	88		45-120
877-09-8	Tetrachloro-m-xylene	72		30-124

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-105 | Lab Sample ID: 480-133590-3

Matrix: Solid | Lab File ID: 25_06-096.D

Analysis Method: 8081B | Date Collected: 04/04/2018 08:45

Extraction Method: 3550C | Date Extracted: 04/05/2018 06:45

Sample wt/vol: 30.40(g) | Date Analyzed: 04/05/2018 22:39

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLPII ID: 0.53(mm)

% Moisture: 13.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407394 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
72-54-8	4,4'-DDD	ND		1.9	0.37
72-55-9	4,4'-DDE	ND		1.9	0.40
50-29-3	4,4'-DDT	ND		1.9	0.44
309-00-2	Aldrin	ND		1.9	0.47
319-84-6	alpha-BHC	ND		1.9	0.34
5103-71-9	cis-Chlordane	ND		1.9	0.95
319-85-7	beta-BHC	ND		1.9	0.34
319-86-8	delta-BHC	ND		1.9	0.35
60-57-1	Dieldrin	ND		1.9	0.46
959-98-8	Endosulfan I	ND		1.9	0.36
33213-65-9	Endosulfan II	ND		1.9	0.34
1031-07-8	Endosulfan sulfate	ND		1.9	0.35
72-20-8	Endrin	ND		1.9	0.38
7421-93-4	Endrin aldehyde	ND		1.9	0.49
53494-70-5	Endrin ketone	ND		1.9	0.47
58-89-9	gamma-BHC (Lindane)	ND		1.9	0.35
5103-74-2	trans-Chlordane	ND		1.9	0.60
76-44-8	Heptachlor	ND		1.9	0.41
1024-57-3	Heptachlor epoxide	ND		1.9	0.49
72-43-5	Methoxychlor	ND		1.9	0.39
8001-35-2	Toxaphene	ND		19	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	116		45-120
877-09-8	Tetrachloro-m-xylene	58		30-124

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133608-1

SDG No.:

Client Sample ID: HFL-MW-104 (9-11) | Lab Sample ID: 480-133608-1

Matrix: Solid | Lab File ID: 25_06-097.D

Analysis Method: 8081B | Date Collected: 04/04/2018 14:00

Extraction Method: 3550C | Date Extracted: 04/05/2018 06:45

Sample wt/vol: 30.36(g) | Date Analyzed: 04/05/2018 22:58

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLPII ID: 0.53(mm)

% Moisture: 30.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407394 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
72-54-8	4,4'-DDD	ND		2.4	0.46
72-55-9	4,4'-DDE	ND		2.4	0.50
50-29-3	4,4'-DDT	ND		2.4	0.55
309-00-2	Aldrin	ND		2.4	0.58
319-84-6	alpha-BHC	ND		2.4	0.42
5103-71-9	cis-Chlordane	ND		2.4	1.2
319-85-7	beta-BHC	ND		2.4	0.42
319-86-8	delta-BHC	ND		2.4	0.44
60-57-1	Dieldrin	ND		2.4	0.57
959-98-8	Endosulfan I	ND		2.4	0.45
33213-65-9	Endosulfan II	ND		2.4	0.42
1031-07-8	Endosulfan sulfate	ND		2.4	0.44
72-20-8	Endrin	ND		2.4	0.47
7421-93-4	Endrin aldehyde	ND		2.4	0.60
53494-70-5	Endrin ketone	ND		2.4	0.58
58-89-9	gamma-BHC (Lindane)	ND		2.4	0.43
5103-74-2	trans-Chlordane	ND		2.4	0.75
76-44-8	Heptachlor	ND		2.4	0.51
1024-57-3	Heptachlor epoxide	ND		2.4	0.61
72-43-5	Methoxychlor	ND		2.4	0.48
8001-35-2	Toxaphene	ND		24	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	79		45-120
877-09-8	Tetrachloro-m-xylene	70		30-124

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134080-1

SDG No.:

Client Sample ID: HFL-MW-105(22-24) | Lab Sample ID: 480-134080-1

Matrix: Solid | Lab File ID: 25_06-300.D

Analysis Method: 8081B | Date Collected: 04/11/2018 16:45

Extraction Method: 3550C | Date Extracted: 04/13/2018 15:08

Sample wt/vol: 30.61(g) | Date Analyzed: 04/17/2018 12:58

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLPI ID: 0.53(mm)

% Moisture: 20.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 409191 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
72-54-8	4,4'-DDD	ND		2.1	0.40
72-55-9	4,4'-DDE	ND		2.1	0.43
50-29-3	4,4'-DDT	ND		2.1	0.48
309-00-2	Aldrin	ND		2.1	0.51
319-84-6	alpha-BHC	ND		2.1	0.37
5103-71-9	cis-Chlordane	ND		2.1	1.0
319-85-7	beta-BHC	ND		2.1	0.37
319-86-8	delta-BHC	ND		2.1	0.38
60-57-1	Dieldrin	ND		2.1	0.49
959-98-8	Endosulfan I	ND		2.1	0.40
33213-65-9	Endosulfan II	ND		2.1	0.37
1031-07-8	Endosulfan sulfate	ND		2.1	0.38
72-20-8	Endrin	ND		2.1	0.41
7421-93-4	Endrin aldehyde	ND		2.1	0.53
53494-70-5	Endrin ketone	ND		2.1	0.51
58-89-9	gamma-BHC (Lindane)	ND		2.1	0.38
5103-74-2	trans-Chlordane	ND		2.1	0.66
76-44-8	Heptachlor	ND		2.1	0.45
1024-57-3	Heptachlor epoxide	ND		2.1	0.53
72-43-5	Methoxychlor	ND		2.1	0.42
8001-35-2	Toxaphene	ND		21	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	113		45-120
877-09-8	Tetrachloro-m-xylene	95		30-124

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-104 | Lab Sample ID: 480-133590-1

Matrix: Solid | Lab File ID: 7_11-313.D

Analysis Method: 8082A | Date Collected: 04/04/2018 08:15

Extraction Method: 3550C | Date Extracted: 04/05/2018 06:49

Sample wt/vol: 2.34(g) | Date Analyzed: 04/06/2018 12:54

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ZB-5 ID: 0.53(mm)

% Moisture: 21.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407494 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.27	0.053
11104-28-2	PCB-1221	ND		0.27	0.053
11141-16-5	PCB-1232	ND		0.27	0.053
53469-21-9	PCB-1242	ND		0.27	0.053
12672-29-6	PCB-1248	ND		0.27	0.053
11097-69-1	PCB-1254	ND		0.27	0.13
11096-82-5	PCB-1260	ND		0.27	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	145		60-154
2051-24-3	DCB Decachlorobiphenyl	110		65-174

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-106 | Lab Sample ID: 480-133590-2

Matrix: Solid | Lab File ID: 7_11-314.D

Analysis Method: 8082A | Date Collected: 04/04/2018 08:30

Extraction Method: 3550C | Date Extracted: 04/05/2018 06:49

Sample wt/vol: 2.31(g) | Date Analyzed: 04/06/2018 13:10

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ZB-5 ID: 0.53(mm)

% Moisture: 21.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407494 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.28	0.054
11104-28-2	PCB-1221	ND		0.28	0.054
11141-16-5	PCB-1232	ND		0.28	0.054
53469-21-9	PCB-1242	ND		0.28	0.054
12672-29-6	PCB-1248	ND		0.28	0.054
11097-69-1	PCB-1254	ND		0.28	0.13
11096-82-5	PCB-1260	ND		0.28	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	139		60-154
2051-24-3	DCB Decachlorobiphenyl	114		65-174

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: HFL-SS-105 | Lab Sample ID: 480-133590-3

Matrix: Solid | Lab File ID: 7_11-315.D

Analysis Method: 8082A | Date Collected: 04/04/2018 08:45

Extraction Method: 3550C | Date Extracted: 04/05/2018 06:49

Sample wt/vol: 2.66(g) | Date Analyzed: 04/06/2018 13:26

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ZB-5 ID: 0.53(mm)

% Moisture: 13.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407494 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.22	0.042
11104-28-2	PCB-1221	ND		0.22	0.042
11141-16-5	PCB-1232	ND		0.22	0.042
53469-21-9	PCB-1242	ND		0.22	0.042
12672-29-6	PCB-1248	ND		0.22	0.042
11097-69-1	PCB-1254	ND		0.22	0.10
11096-82-5	PCB-1260	ND		0.22	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	154		60-154
2051-24-3	DCB Decachlorobiphenyl	124		65-174

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133608-1

SDG No.:

Client Sample ID: HFL-MW-104 (9-11) | Lab Sample ID: 480-133608-1

Matrix: Solid | Lab File ID: 7_11-316.D

Analysis Method: 8082A | Date Collected: 04/04/2018 14:00

Extraction Method: 3550C | Date Extracted: 04/05/2018 06:49

Sample wt/vol: 2.11(g) | Date Analyzed: 04/06/2018 13:42

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ZB-5 ID: 0.53(mm)

% Moisture: 30.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 407494 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.34	0.066
11104-28-2	PCB-1221	ND		0.34	0.066
11141-16-5	PCB-1232	ND		0.34	0.066
53469-21-9	PCB-1242	ND		0.34	0.066
12672-29-6	PCB-1248	ND		0.34	0.066
11097-69-1	PCB-1254	ND		0.34	0.16
11096-82-5	PCB-1260	ND		0.34	0.16

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	168	X	60-154
2051-24-3	DCB Decachlorobiphenyl	143		65-174

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134080-1

SDG No.:

Client Sample ID: HFL-MW-105(22-24) | Lab Sample ID: 480-134080-1

Matrix: Solid | Lab File ID: 12_014_117.D

Analysis Method: 8082A | Date Collected: 04/11/2018 16:45

Extraction Method: 3550C | Date Extracted: 04/16/2018 10:18

Sample wt/vol: 2.52(g) | Date Analyzed: 04/17/2018 14:31

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ZB-35 ID: 0.53(mm)

% Moisture: 20.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 409202 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.25	0.049
11104-28-2	PCB-1221	ND		0.25	0.049
11141-16-5	PCB-1232	ND		0.25	0.049
53469-21-9	PCB-1242	ND		0.25	0.049
12672-29-6	PCB-1248	ND		0.25	0.049
11097-69-1	PCB-1254	ND		0.25	0.12
11096-82-5	PCB-1260	ND		0.25	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	108		60-154
2051-24-3	DCB Decachlorobiphenyl	108		65-174

QC NONCONFORMANCE DOCUMENTATION

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Buffalo Job No.: 480-133590-1 Analy Batch No.: 404437

SDG No.:

Instrument ID: HP5973F GC Column: ZB-624 (30) ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/16/2018 16:48 Calibration End Date: 03/16/2018 19:22 Calibration ID: 33147

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	1.5961 1.7420	1.5836 1.6423	1.7088	1.7974	1.6600	Ave		1.6757			0.1000	4.7		20.0			
Isobutyl alcohol	+++++ 0.0765	0.0722 0.0715	0.0724	0.0806	0.0820	Ave		0.0759				6.0		20.0			
Benzene	5.8590 5.3915	5.5685 4.8315	5.9867	6.0662	5.4308	Ave		5.5906			0.5000	7.6		20.0			
1,2-Dichloroethane	2.0663 1.8414	1.9093 1.7130	2.0238	2.0409	1.8579	Ave		1.9218			0.1000	6.7		20.0			
n-Heptane	2.8768 2.5795	2.7767 2.3273	2.8573	2.9127	2.5736	Ave		2.7006				7.9		20.0			
Trichloroethene	1.4668 1.4322	1.4472 1.3367	1.5365	1.5680	1.4101	Ave		1.4568			0.2000	5.3		20.0			
Methylcyclohexane	2.7462 2.5504	2.6175 2.3694	2.8137	2.8389	2.5117	Ave		2.6354			0.1000	6.6		20.0			
1,2-Dichloropropane	1.3951 1.3318	1.2672 1.2657	1.3851	1.4326	1.3300	Ave		1.3439			0.1000	4.8		20.0			
1,4-Dioxane	+++++ 0.0073	0.0075 0.0070	0.0076	0.0082	0.0080	Ave		0.0076				6.1		20.0			
Dibromomethane	0.8297 0.8448	0.7967 0.8023	0.8624	0.8838	0.8428	Ave		0.8375			0.1000	3.7		20.0			
Bromodichloromethane	1.5430 1.7536	1.5185 1.6844	1.6906	1.7463	1.6836	Ave		1.6600			0.2000	5.6		20.0			
2-Chloroethyl vinyl ether	0.7847 0.9028	0.8115 0.8641	0.8630	0.9109	0.8769	Ave		0.8591				5.4		20.0			
cis-1,3-Dichloropropene	2.0608 2.1861	1.9207 2.0508	2.1500	2.2154	2.1424	Ave		2.1038			0.2000	4.8		20.0			
4-Methyl-2-pentanone (MIBK)	0.7042 0.6980	0.7531 0.5983	0.7883	0.8448	0.7687	Ave		0.7365			0.1000	10.7		20.0			
Toluene	1.9433 1.6792	1.7888 1.5630	1.9023	1.9096	1.7117	Ave		1.7854			0.4000	7.9		20.0			
trans-1,3-Dichloropropene	0.8604 0.9529	0.8373 0.9177	0.9244	0.9769	0.9461	Ave		0.9165			0.1000	5.5		20.0			
Ethyl methacrylate	0.8554 0.9029	0.8348 0.8673	0.8963	0.9430	0.9155	Ave		0.8879				4.2		20.0			
1,1,2-Trichloroethane	0.4950 0.4851	0.4934 0.4702	0.5134	0.5258	0.4896	Ave		0.4961			0.1000	3.7		20.0			
Tetrachloroethene	0.7527 0.7472	0.7573 0.7033	0.8289	0.8420	0.7571	Ave		0.7698			0.2000	6.3		20.0			
1,3-Dichloropropane	1.0273 0.9912	0.9933 0.9356	1.0493	1.0751	1.0009	Ave		1.0104				4.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-133590-1

SDG No.:

Lab Sample ID: CCVIS 480-407281/3 Calibration Date: 04/05/2018 08:49

Instrument ID: HP5973F Calib Start Date: 03/16/2018 16:48

GC Column: ZB-624 (30) VOA ID: 0.25(mm) Calib End Date: 03/16/2018 19:22

Lab File ID: F1490.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	2.635	2.771	0.1000	52.6	50.0	5.1	20.0
1,2-Dichloropropane	Ave	1.344	1.404	0.1000	52.2	50.0	4.5	20.0
1,4-Dioxane	Ave	0.0076	0.0087		1150	1000	14.5	50.0
Dibromomethane	Ave	0.8375	0.8943	0.1000	53.4	50.0	6.8	20.0
Bromodichloromethane	Ave	1.660	1.701	0.2000	51.2	50.0	2.5	20.0
2-Chloroethyl vinyl ether	Ave	0.8591	0.9080		52.8	50.0	5.7	20.0
cis-1,3-Dichloropropene	Ave	2.104	2.128	0.2000	50.6	50.0	1.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7365	0.8261	0.1000	280	250	12.2	20.0
Toluene	Ave	1.785	1.840	0.4000	51.5	50.0	3.1	20.0
trans-1,3-Dichloropropene	Ave	0.9165	0.9304	0.1000	50.8	50.0	1.5	20.0
Ethyl methacrylate	Ave	0.8879	0.9301		52.4	50.0	4.7	20.0
1,1,2-Trichloroethane	Ave	0.4961	0.5233	0.1000	52.7	50.0	5.5	20.0
Tetrachloroethene	Ave	0.7698	0.8162	0.2000	53.0	50.0	6.0	20.0
1,3-Dichloropropane	Ave	1.010	1.066		52.8	50.0	5.5	20.0
2-Hexanone	Ave	0.5687	0.6485	0.1000	285	250	14.0	20.0
Dibromochloromethane	Ave	0.5864	0.6206	0.1000	52.9	50.0	5.8	20.0
1,2-Dibromoethane	Ave	0.6239	0.6705		53.7	50.0	7.5	20.0
Chlorobenzene	Ave	1.932	2.014	0.5000	52.1	50.0	4.2	20.0
Ethylbenzene	Ave	3.147	3.305	0.1000	52.5	50.0	5.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.5916	0.5929		50.1	50.0	0.2	20.0
m,p-Xylene	Ave	1.299	1.367	0.1000	52.6	50.0	5.2	20.0
o-Xylene	Ave	1.231	1.290	0.3000	52.4	50.0	4.8	20.0
Styrene	Ave	2.191	2.273	0.3000	51.9	50.0	3.7	20.0
Bromoform	Ave	0.3805	0.3790	0.1000	49.8	50.0	-0.4	50.0
Isopropylbenzene	Ave	3.015	3.155	0.1000	52.3	50.0	4.6	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7587	0.8258	0.3000	54.4	50.0	8.9	20.0
Bromobenzene	Ave	0.8441	0.8635		51.1	50.0	2.3	20.0
N-Propylbenzene	Ave	3.531	3.697		52.3	50.0	4.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2598	0.2661		51.2	50.0	2.4	50.0
1,2,3-Trichloropropane	Ave	0.2562	0.2716		53.0	50.0	6.0	20.0
2-Chlorotoluene	Ave	0.7657	0.7842		51.2	50.0	2.4	20.0
1,3,5-Trimethylbenzene	Ave	2.573	2.689		52.2	50.0	4.5	20.0
4-Chlorotoluene	Ave	0.8144	0.8408		51.6	50.0	3.2	20.0
tert-Butylbenzene	Ave	0.5922	0.6115		51.6	50.0	3.3	20.0
1,2,4-Trimethylbenzene	Ave	2.642	2.760		52.2	50.0	4.4	20.0
sec-Butylbenzene	Ave	3.246	3.419		52.7	50.0	5.3	20.0
4-Isopropyltoluene	Ave	2.832	2.986		52.7	50.0	5.4	20.0
1,3-Dichlorobenzene	Ave	1.593	1.632	0.6000	51.2	50.0	2.4	20.0
1,4-Dichlorobenzene	Ave	1.625	1.684	0.5000	51.8	50.0	3.6	20.0
n-Butylbenzene	Ave	2.505	2.646		52.8	50.0	5.6	20.0
1,2-Dichlorobenzene	Ave	1.487	1.514	0.4000	50.9	50.0	1.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134080-1

SDG No.:

Lab Sample ID: CCVIS 480-408660/3 Calibration Date: 04/13/2018 10:00

Instrument ID: HP5973F Calib Start Date: 03/16/2018 16:48

GC Column: ZB-624 (30) VOA ID: 0.25(mm) Calib End Date: 03/16/2018 19:22

Lab File ID: F1696.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	2.635	2.687	0.1000	51.0	50.0	2.0	20.0
1,2-Dichloropropane	Ave	1.344	1.367	0.1000	50.9	50.0	1.7	20.0
1,4-Dioxane	Ave	0.0076	0.0084		1110	1000	10.6	50.0
Dibromomethane	Ave	0.8375	0.8812	0.1000	52.6	50.0	5.2	20.0
Bromodichloromethane	Ave	1.660	1.721	0.2000	51.8	50.0	3.7	20.0
2-Chloroethyl vinyl ether	Ave	0.8591	0.8579		49.9	50.0	-0.1	20.0
cis-1,3-Dichloropropene	Ave	2.104	2.086	0.2000	49.6	50.0	-0.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7365	0.7528	0.1000	256	250	2.2	20.0
Toluene	Ave	1.785	1.806	0.4000	50.6	50.0	1.1	20.0
trans-1,3-Dichloropropene	Ave	0.9165	0.9055	0.1000	49.4	50.0	-1.2	20.0
Ethyl methacrylate	Ave	0.8879	0.8771		49.4	50.0	-1.2	20.0
1,1,2-Trichloroethane	Ave	0.4961	0.5029	0.1000	50.7	50.0	1.4	20.0
Tetrachloroethene	Ave	0.7698	0.8069	0.2000	52.4	50.0	4.8	20.0
1,3-Dichloropropane	Ave	1.010	1.036		51.3	50.0	2.6	20.0
2-Hexanone	Ave	0.5687	0.5885	0.1000	259	250	3.5	20.0
Dibromochloromethane	Ave	0.5864	0.6290	0.1000	53.6	50.0	7.3	20.0
1,2-Dibromoethane	Ave	0.6239	0.6492		52.0	50.0	4.0	20.0
Chlorobenzene	Ave	1.932	1.995	0.5000	51.6	50.0	3.2	20.0
Ethylbenzene	Ave	3.147	3.257	0.1000	51.8	50.0	3.5	20.0
1,1,1,2-Tetrachloroethane	Ave	0.5916	0.5906		49.9	50.0	-0.2	20.0
m,p-Xylene	Ave	1.299	1.329	0.1000	51.1	50.0	2.3	20.0
o-Xylene	Ave	1.231	1.263	0.3000	51.3	50.0	2.7	20.0
Styrene	Ave	2.191	2.229	0.3000	50.9	50.0	1.7	20.0
Bromoform	Ave	0.3805	0.3883	0.1000	51.0	50.0	2.0	50.0
Isopropylbenzene	Ave	3.015	3.054	0.1000	50.6	50.0	1.3	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7587	0.7830	0.3000	51.6	50.0	3.2	20.0
Bromobenzene	Ave	0.8441	0.8500		50.3	50.0	0.7	20.0
N-Propylbenzene	Ave	3.531	3.612		51.1	50.0	2.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2598	0.2512		48.3	50.0	-3.3	50.0
1,2,3-Trichloropropane	Ave	0.2562	0.2560		50.0	50.0	-0.0	20.0
2-Chlorotoluene	Ave	0.7657	0.7641		49.9	50.0	-0.2	20.0
1,3,5-Trimethylbenzene	Ave	2.573	2.588		50.3	50.0	0.6	20.0
4-Chlorotoluene	Ave	0.8144	0.8238		50.6	50.0	1.2	20.0
tert-Butylbenzene	Ave	0.5922	0.6016		50.8	50.0	1.6	20.0
1,2,4-Trimethylbenzene	Ave	2.642	2.668		50.5	50.0	1.0	20.0
sec-Butylbenzene	Ave	3.246	3.292		50.7	50.0	1.4	20.0
4-Isopropyltoluene	Ave	2.832	2.877		50.8	50.0	1.6	20.0
1,3-Dichlorobenzene	Ave	1.593	1.614	0.6000	50.6	50.0	1.3	20.0
1,4-Dichlorobenzene	Ave	1.625	1.634	0.5000	50.3	50.0	0.6	20.0
n-Butylbenzene	Ave	2.505	2.572		51.3	50.0	2.7	20.0
1,2-Dichlorobenzene	Ave	1.487	1.483	0.4000	49.8	50.0	-0.3	20.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1 | Analy Batch No.: 405952

SDG No.:

Instrument ID: HP5973X | GC Column: RXI-5Sil MS ID: 0.25(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/27/2018 15:15 | Calibration End Date: 03/27/2018 17:54 | Calibration ID: 33339

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Diethyl phthalate	1.4311 1.6283	1.5067 1.6753	1.5176	1.6454	1.6361	Ave		1.5772			0.0100	5.8		20.0			
Hexadecane	1.1441 1.2357	1.1564 1.2230	1.1904	1.2438	1.2385	Ave		1.2046			0.0100	3.4		20.0			
4-Chlorophenyl phenyl ether	0.7716 0.8538	0.8325 0.8934	0.8291	0.8645	0.8739	Ave		0.8455			0.4000	4.7		20.0			
4-Nitroaniline	0.2732 0.3919	0.3131 0.4113	0.3608	0.3929	0.4053	Ave		0.3641			0.0100	14.4		20.0			
Fluorene	1.4794 1.6022	1.5320 1.6204	1.4904	1.5930	1.5632	Ave		1.5544			0.9000	3.6		20.0			
4,6-Dinitro-2-methylphenol	0.0540 0.1612	0.0923 0.1666	0.1191	0.1461	0.1485	Lin2	-0.527	0.1531			0.0100	8.7			0.9920		0.9900
Diphenylamine	0.5886 0.6655	0.6498 0.6779	0.6156	0.6250	0.6417	Ave		0.6377			0.0100	4.8		20.0			
N-Nitrosodiphenylamine	0.5032 0.5690	0.5556 0.5796	0.5263	0.5344	0.5487	Ave		0.5453			0.0100	4.8		20.0			
1,2-Diphenylhydrazine	0.7568 0.8600	0.8349 0.8665	0.8232	0.8207	0.8530	Ave		0.8307			0.0100	4.5		20.0			
trans-Azobenzene	0.7568 0.8600	0.8349 0.8665	0.8232	0.8207	0.8530	Ave		0.8307			0.0100	4.5		20.0			
4-Bromophenyl phenyl ether	0.2105 0.2673	0.2397 0.2808	0.2610	0.2593	0.2620	Lin2	-0.147	0.2690			0.1000	2.5			0.9990		0.9900
Hexachlorobenzene	0.2568 0.2734	0.2566 0.2792	0.2478	0.2619	0.2663	Ave		0.2631			0.1000	4.1		20.0			
Atrazine	0.3833 0.4539	0.4433 0.4484	0.4430	0.4821	0.4718	Lin2	-0.187	0.4652			0.0100	3.5			0.9990		0.9900
Pentachlorophenol	+++++ 0.1665	0.0174 0.1812	0.0788	0.1298	0.1483	Lin2	-1.502	0.1575			0.0500	17.4			0.9700		0.9900
n-Octadecane	0.5130 0.6192	0.5661 0.6156	0.5685	0.5875	0.6081	Lin2	-0.231	0.6056			0.0100	2.6			0.9990		0.9900
Phenanthrene	1.0507 1.1481	1.0835 1.1723	1.0939	1.1085	1.1088	Ave		1.1094			0.7000	3.6		20.0			
Anthracene	1.0589 1.2166	1.1131 1.2034	1.1266	1.1571	1.1829	Ave		1.1512			0.7000	4.8		20.0			
Carbazole	0.8851 1.0479	0.9838 1.0663	0.9845	1.0208	1.0296	Lin2	-0.375	1.0399			0.0100	2.3			0.9990		0.9900
Di-n-butyl phthalate	1.0997 1.3150	1.2061 1.3603	1.2102	1.2882	1.2528	Lin2	-0.502	1.2974			0.0100	3.5			0.9990		0.9900
Fluoranthene	1.1616 1.3644	1.2543 1.4020	1.2296	1.3323	1.3355	Lin2	-0.477	1.3446			0.6000	3.7			0.9980		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134080-1

SDG No.:

Lab Sample ID: CCVIS 480-409039/3 Calibration Date: 04/16/2018 16:32

Instrument ID: HP5973X Calib Start Date: 04/09/2018 16:24

GC Column: RXI-5Sil MS ID: 0.25(mm) Calib End Date: 04/09/2018 19:04

Lab File ID: X210604.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin2		0.4990	0.0100	45900	50000	-8.3	20.0
N-Nitrosodimethylamine	Lin2		1.389	0.0100	64900	50000	29.8	50.0
Pyridine	Ave	1.405	1.669	0.0100	119000	100000	18.8	50.0
Benzaldehyde	Ave	0.996	0.8379	0.0100	42000	50000	-15.9	50.0
Phenol	Ave	1.627	1.475	0.8000	45300	50000	-9.3	20.0
Aniline	Ave	1.900	1.785	0.0100	47000	50000	-6.0	20.0
Bis(2-chloroethyl)ether	Ave	1.215	1.076	0.7000	44300	50000	-11.5	20.0
2-Chlorophenol	Ave	1.312	1.257	0.8000	47900	50000	-4.2	20.0
n-Decane	Ave	1.811	1.827	0.0100	50500	50000	0.9	20.0
1,3-Dichlorobenzene	Ave	1.618	1.591	0.0100	49200	50000	-1.7	20.0
1,4-Dichlorobenzene	Lin2		1.630	0.0100	49200	50000	-1.7	20.0
Benzyl alcohol	Lin2		0.8727	0.0100	50400	50000	0.9	20.0
1,2-Dichlorobenzene	Ave	1.546	1.561	0.0100	50500	50000	1.0	20.0
2-Methylphenol	Lin2		1.159	0.7000	48100	50000	-3.8	20.0
bis (2-chloroisopropyl) ether	Ave	2.045	2.514	0.0100	61500	50000	22.9*	20.0
Indene	Ave	0.6457	0.5482.	0.0100	127000	150000	-15.1	20.0
N-Nitrosodi-n-propylamine	Lin2		0.8684	0.5000	44500	50000	-11.0	20.0
4-Methylphenol	Lin2		1.236	0.6000	47000	50000	-6.0	20.0
Acetophenone	Lin2		1.851	0.0100	46200	50000	-7.6	20.0
Hexachloroethane	Ave	0.6239	0.5883	0.3000	47100	50000	-5.7	20.0
Nitrobenzene	Lin2		0.4121	0.2000	46200	50000	-7.5	20.0
Isophorone	Lin2		0.6560	0.4000	46400	50000	-7.3	20.0
2-Nitrophenol	Lin2		0.2112	0.1000	49500	50000	-1.0	20.0
2,4-Dimethylphenol	Lin2		0.4115	0.2000	48000	50000	-4.1	20.0
Bis(2-chloroethoxy)methane	Lin2		0.3627	0.3000	43400	50000	-13.3	20.0
Benzoic acid	Lin1		0.2125	0.0100	119000	150000	-20.6	50.0
2,4-Dichlorophenol	Lin2		0.3696	0.2000	52200	50000	4.4	20.0
1,2,4-Trichlorobenzene	Ave	0.4266	0.4690	0.0100	55000	50000	9.9	20.0
Naphthalene	Ave	1.081	1.068	0.7000	49400	50000	-1.2	20.0
4-Chloroaniline	Lin2		0.4260	0.0100	49500	50000	-1.1	20.0
2,6-Dichlorophenol	Lin2		0.3504	0.0100	49700	50000	-0.5	20.0
Hexachlorobutadiene	Lin2		0.3412	0.0100	54300	50000	8.6	20.0
Caprolactam	Lin2		0.0937	0.0100	47800	50000	-4.3	50.0
4-Chloro-3-methylphenol	Lin2		0.3166	0.2000	46800	50000	-6.4	20.0
2-Methylnaphthalene	Lin2		0.8174	0.4000	53200	50000	6.4	20.0
1-Methylnaphthalene	Lin2		0.7528	0.0100	52100	50000	4.3	20.0
Hexachlorocyclopentadiene	Lin2		0.6121	0.0500	46100	50000	-7.9	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.8589	0.8641	0.0100	50300	50000	0.6	20.0
2,4,6-Trichlorophenol	Lin2		0.5080	0.2000	50500	50000	1.0	20.0
2,4,5-Trichlorophenol	Lin2		0.5400	0.2000	50700	50000	1.4	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-133590-1

SDG No.:

Lab Sample ID: CCVIS 480-407394/5 Calibration Date: 04/05/2018 15:24

Instrument ID: HP6890-25 Calib Start Date: 03/23/2018 12:40

GC Column: RTX-CLPI ID: 0.53(mm) Calib End Date: 03/23/2018 13:58

Lab File ID: 25_06-074.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Lin1		1.852		0.0488	0.0500	-2.4	20.0
gamma-BHC (Lindane)	Lin1		1.711		0.0499	0.0500	-0.3	20.0
beta-BHC	Lin1		0.6828		0.0493	0.0500	-1.4	20.0
delta-BHC	Lin1		1.217		0.0377	0.0500	-24.7*	20.0
Heptachlor	Lin1		1.707		0.0566	0.0500	13.1	20.0
Aldrin	Lin1		1.623		0.0542	0.0500	8.4	20.0
Heptachlor epoxide	Lin1		1.427		0.0559	0.0500	11.8	20.0
trans-Chlordane	Lin1		1.482		0.0495	0.0500	-1.0	20.0
cis-Chlordane	Lin1		1.075		0.0392	0.0500	-21.5*	20.0
4,4'-DDE	Lin1		1.364		0.0484	0.0500	-3.3	20.0
Endosulfan I	Lin1		1.113		0.0473	0.0500	-5.3	20.0
Dieldrin	Lin1		1.015		0.0407	0.0500	-18.6	20.0
Endrin	Lin1		1.389		0.0566	0.0500	13.2	20.0
4,4'-DDD	Lin1		1.133		0.0502	0.0500	0.5	20.0
Endosulfan II	Lin1		1.181		0.0520	0.0500	3.9	20.0
4,4'-DDT	Lin1		1.228		0.0500	0.0500	0.0	20.0
Endrin aldehyde	Lin1		0.9667		0.0529	0.0500	5.8	20.0
Methoxychlor	Lin1		0.5733		0.0514	0.0500	2.8	20.0
Endosulfan sulfate	Lin1		0.7972		0.0427	0.0500	-14.7	20.0
Endrin ketone	Lin1		1.037		0.0440	0.0500	-11.9	20.0
Tetrachloro-m-xylene	Lin1		0.8098		0.0418	0.0500	-16.5	20.0
DCB Decachlorobiphenyl	Lin1		0.8815		0.0442	0.0500	-11.7	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-133590-1

SDG No.:

Lab Sample ID: CCVIS 480-407494/4 Calibration Date: 04/06/2018 08:56

Instrument ID: HP6890-7 Calib Start Date: 11/29/2017 12:34

GC Column: ZB-35 ID: 0.53(mm) Calib End Date: 11/29/2017 14:09

Lab File ID: 7_11-299.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin1		0.0857		0.612	0.500	22.3*	20.0
PCB-1016 Peak 2	Lin1		0.0334		0.604	0.500	20.8*	20.0
PCB-1016 Peak 3	Lin1		0.0227		0.656	0.500	31.2*	20.0
PCB-1016 Peak 4	Lin1		0.0399		0.621	0.500	24.2*	20.0
PCB-1016 Peak 5	Lin1		0.0309		0.632	0.500	26.4*	20.0
PCB-1260 Peak 1	Lin1		0.0530		0.686	0.500	37.3*	20.0
PCB-1260 Peak 2	Lin1		0.0588		0.665	0.500	32.9*	20.0
PCB-1260 Peak 3	Lin1		0.0406		0.682	0.500	36.4*	20.0
PCB-1260 Peak 4	Lin1		0.0896		0.636	0.500	27.2*	20.0
PCB-1260 Peak 5	Lin1		0.0583		0.625	0.500	25.0*	20.0
Tetrachloro-m-xylene	Lin1		1.564		0.0172	0.0125	37.2*	20.0
DCB Decachlorobiphenyl	Lin1		1.067		0.0155	0.0125	24.2*	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-133590-1

SDG No.:

Lab Sample ID: CCV 480-407494/5 Calibration Date: 04/06/2018 09:12

Instrument ID: HP6890-7 Calib Start Date: 11/29/2017 15:45

GC Column: ZB-35 ID: 0.53(mm) Calib End Date: 11/29/2017 16:17

Lab File ID: 7_11-300.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Lin1		0.0076		0.549	0.500	9.8	20.0
PCB-1221 Peak 2	Lin1		0.0124		0.595	0.500	18.9	20.0
PCB-1221 Peak 3	Lin1		0.0079		0.673	0.500	34.7*	20.0
PCB-1221 Peak 4	Lin1		0.0203		0.594	0.500	18.8	20.0
PCB-1254 Peak 1	Lin1		0.0441		0.544	0.500	8.9	20.0
PCB-1254 Peak 2	Lin1		0.0336		0.708	0.500	41.6*	20.0
PCB-1254 Peak 3	Lin1		0.0753		0.550	0.500	10.0	20.0
PCB-1254 Peak 4	Lin1		0.0770		0.567	0.500	13.4	20.0
PCB-1254 Peak 5	Lin1		0.0513		0.450	0.500	-10.0	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-133590-1

SDG No.:

Lab Sample ID: CCV 480-407494/7 Calibration Date: 04/06/2018 09:44

Instrument ID: HP6890-7 Calib Start Date: 11/29/2017 17:52

GC Column: ZB-35 ID: 0.53(mm) Calib End Date: 11/29/2017 18:24

Lab File ID: 7_11-302.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Lin1		0.0356		0.636	0.500	27.1*	20.0
PCB-1242 Peak 2	Lin1		0.0746		0.628	0.500	25.6*	20.0
PCB-1242 Peak 3	Lin1		0.0291		0.644	0.500	28.8*	20.0
PCB-1242 Peak 4	Lin1		0.0157		0.611	0.500	22.3*	20.0
PCB-1242 Peak 5	Lin1		0.0360		0.656	0.500	31.1*	20.0
PCB-1268 Peak 1	Lin1		0.1355		0.605	0.500	21.0*	20.0
PCB-1268 Peak 2	Lin1		0.1257		0.602	0.500	20.3*	20.0
PCB-1268 Peak 3	Lin1		0.0287		0.625	0.500	25.1*	20.0
PCB-1268 Peak 4	Lin1		0.0454		0.590	0.500	18.1	20.0
PCB-1268 Peak 5	Lin1		0.3679		0.580	0.500	16.0	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134080-1

SDG No.:

Lab Sample ID: CCV 480-409202/6 Calibration Date: 04/17/2018 10:10

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 11:35

GC Column: ZB-5 ID: 0.53(mm) Calib End Date: 04/05/2018 12:06

Lab File ID: 12_014_103.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Ave	0.0314	0.0392		0.624	0.500	24.8*	20.0
PCB-1232 Peak 2	Ave	0.0250	0.0320		0.641	0.500	28.2*	20.0
PCB-1232 Peak 3	Lin1		0.0172		0.645	0.500	28.9*	20.0
PCB-1232 Peak 4	Ave	0.0322	0.0373		0.578	0.500	15.6	20.0
PCB-1232 Peak 5	Ave	0.0158	0.0199		0.628	0.500	25.5*	20.0
PCB-1262 Peak 1	Ave	0.0572	0.0599		0.524	0.500	4.8	20.0
PCB-1262 Peak 2	Lin1		0.0500		0.580	0.500	16.1	20.0
PCB-1262 Peak 3	Ave	0.0321	0.0367		0.571	0.500	14.2	20.0
PCB-1262 Peak 4	Ave	0.0400	0.0469		0.587	0.500	17.3	20.0
PCB-1262 Peak 5	Ave	0.0666	0.0755		0.567	0.500	13.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134080-1

SDG No.:

Lab Sample ID: CCV 480-409202/7 Calibration Date: 04/17/2018 10:25

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 12:37

GC Column: ZB-35 ID: 0.53(mm) Calib End Date: 04/05/2018 13:07

Lab File ID: 12_014_104.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Ave	0.0732	0.0829		0.566	0.500	13.2	20.0
PCB-1242 Peak 2	Ave	0.0303	0.0353		0.584	0.500	16.7	20.0
PCB-1242 Peak 3	Ave	0.0398	0.0514		0.646	0.500	29.2*	20.0
PCB-1242 Peak 4	Lin1		0.0410		0.606	0.500	21.3*	20.0
PCB-1242 Peak 5	Ave	0.0295	0.0332		0.563	0.500	12.6	20.0
PCB-1268 Peak 1	Ave	0.1217	0.1324		0.544	0.500	8.9	20.0
PCB-1268 Peak 2	Lin1		0.2066		0.611	0.500	22.2*	20.0
PCB-1268 Peak 3	Ave	0.1326	0.1168		0.440	0.500	-11.9	20.0
PCB-1268 Peak 4	Ave	0.0582	0.0623		0.535	0.500	7.1	20.0
PCB-1268 Peak 5	Lin1		0.4720		0.639	0.500	27.8*	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134080-1

SDG No.:

Lab Sample ID: CCV 480-409202/7 Calibration Date: 04/17/2018 10:25

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 12:37

GC Column: ZB-5 ID: 0.53(mm) Calib End Date: 04/05/2018 13:07

Lab File ID: 12_014_104.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Ave	0.0640	0.0669		0.523	0.500	4.5	20.0
PCB-1242 Peak 2	Ave	0.0325	0.0315		0.485	0.500	-3.1	20.0
PCB-1242 Peak 3	Ave	0.0362	0.0345		0.478	0.500	-4.5	20.0
PCB-1242 Peak 4	Lin1		0.0679		0.796	0.500	59.2*	20.0
PCB-1242 Peak 5	Lin1		0.0300		0.438	0.500	-12.5	20.0
PCB-1268 Peak 1	Ave	0.1029	0.1225		0.595	0.500	19.0	20.0
PCB-1268 Peak 2	Ave	0.1830	0.2195		0.600	0.500	19.9	20.0
PCB-1268 Peak 3	Ave	0.1115	0.1295		0.581	0.500	16.1	20.0
PCB-1268 Peak 4	Ave	0.0482	0.0628		0.652	0.500	30.3*	20.0
PCB-1268 Peak 5	Ave	0.3921	0.4514		0.576	0.500	15.1	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134080-1

SDG No.:

Lab Sample ID: CCV 480-409202/8 Calibration Date: 04/17/2018 10:40

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 13:38

GC Column: ZB-5 ID: 0.53(mm) Calib End Date: 04/05/2018 14:09

Lab File ID: 12_014_105.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Lin1		0.0382		0.410	0.500	-17.9	20.0
PCB-1248 Peak 2	Ave	0.0489	0.0487		0.498	0.500	-0.4	20.0
PCB-1248 Peak 3	Ave	0.0405	0.0392		0.485	0.500	-3.0	20.0
PCB-1248 Peak 4	Lin1		0.0201		0.393	0.500	-21.5*	20.0
PCB-1248 Peak 5	Lin1		0.0496		0.500	0.500	-0.0	20.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-133590-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 480-407277/2-A

Matrix: Solid | Lab File ID: F1494.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 04/05/2018 10:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 407281 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		25	3.0
1634-04-4	Methyl tert-butyl ether	ND		5.0	0.49
108-87-2	Methylcyclohexane	ND		5.0	0.76
75-09-2	Methylene Chloride	4.05	J	5.0	2.3
100-42-5	Styrene	ND		5.0	0.25
127-18-4	Tetrachloroethene	ND		5.0	0.67
108-88-3	Toluene	ND		5.0	0.38
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.52
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	2.2
79-01-6	Trichloroethene	ND		5.0	1.1
75-69-4	Trichlorofluoromethane	ND		5.0	0.47
75-01-4	Vinyl chloride	ND		5.0	0.61
1330-20-7	Xylenes, Total	ND		10	0.84
123-91-1	1,4-Dioxane	ND		100	22

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		64-126
460-00-4	4-Bromofluorobenzene (Surr)	100		72-126
1868-53-7	Dibromofluoromethane (Surr)	99		60-140
2037-26-5	Toluene-d8 (Surr)	101		71-125

FORM II
PCBS SURROGATE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-133608-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): ZB-5 ID: 0.53(mm) GC Column (2): ZB-35 ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TCX1 #	TCX2 #	DCBP1 #	DCBP2 #
HFL-MW-104 (9-11)	480-133608-1	168 X	152	143	162
	MB 480-407273/1-A	135	122	115	131
	LCS 480-407273/2-A	149	148	125	141

	QC LIMITS
TCX = Tetrachloro-m-xylene	60-154
DCBP = DCB Decachlorobiphenyl	65-174

Column to be used to flag recovery values

FORM II 8082A

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-134080-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: F1718.D

Lab ID: 480-134080-1 MS Client ID: HFL-MW-105(22-24) MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	60.9	ND	58.4	96	77-121	
1,1,2,2-Tetrachloroethane	60.9	ND	47.6	78	80-120	F1
1,1,2-Trichloro-1,2,2-trifluoroethane	60.9	ND	58.3	96	60-140	
1,1,2-Trichloroethane	60.9	ND	55.2	91	78-122	
1,1-Dichloroethane	60.9	ND	62.7	103	73-126	
1,1-Dichloroethene	60.9	ND	60.0	99	59-125	
1,2,4-Trichlorobenzene	60.9	ND	40.5	67	64-120	
1,2-Dibromo-3-Chloropropane	60.9	ND	37.3	61	63-124	F1
1,2-Dibromoethane	60.9	ND	51.0	84	78-120	
1,2-Dichlorobenzene	60.9	ND	52.9	87	75-120	
1,2-Dichloroethane	60.9	ND	54.2	89	77-122	
1,2-Dichloropropane	60.9	ND	62.4	103	75-124	
1,3-Dichlorobenzene	60.9	ND	52.7	87	74-120	
1,4-Dichlorobenzene	60.9	ND	51.5	85	73-120	
2-Butanone (MEK)	304	ND	202	66	70-134	F1
2-Hexanone	304	ND	197	65	59-130	
4-Methyl-2-pentanone (MIBK)	304	ND	209	69	65-133	
Acetone	304	ND	206	68	61-137	
Benzene	60.9	ND	63.3	104	79-127	
Bromodichloromethane	60.9	ND	60.8	100	80-122	
Bromoform	60.9	ND	46.4	76	68-126	
Bromomethane	60.9	ND	61.7	101	37-149	
Carbon disulfide	60.9	ND	53.7	88	64-131	
Carbon tetrachloride	60.9	ND	55.1	91	75-135	
Chlorobenzene	60.9	ND	58.8	97	76-124	
Chloroethane	60.9	ND	62.2	102	69-135	
Chloroform	60.9	ND	63.3	104	80-120	
Chloromethane	60.9	ND	56.3	93	63-127	
cis-1,2-Dichloroethene	60.9	ND	61.3	101	80-120	
cis-1,3-Dichloropropene	60.9	ND	53.8	88	80-120	
Cyclohexane	60.9	ND	58.1	95	65-120	
Dibromochloromethane	60.9	ND	57.3	94	76-125	
Dichlorodifluoromethane	60.9	ND	60.6	99	57-142	
Ethylbenzene	60.9	ND	60.7	100	80-120	
Isopropylbenzene	60.9	ND	60.7	100	72-120	
Methyl acetate	122	ND	89.2	73	55-136	
Methyl tert-butyl ether	60.9	ND	51.3	84	63-125	
Methylcyclohexane	60.9	ND	58.3	96	60-140	
Methylene Chloride	60.9	ND	54.7	90	61-127	
Styrene	60.9	ND	56.6	93	80-120	
Tetrachloroethene	60.9	ND	59.5	98	74-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-134080-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: F1718.D

Lab ID: 480-134080-1 MS Client ID: HFL-MW-105(22-24) MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Toluene	60.9	ND	59.6	98	74-128	
trans-1,2-Dichloroethene	60.9	ND	59.7	98	78-126	
trans-1,3-Dichloropropene	60.9	ND	48.4	80	73-123	
Trichloroethene	60.9	ND	60.9	100	77-129	
Trichlorofluoromethane	60.9	ND	66.0	108	65-146	
Vinyl chloride	60.9	ND	54.1	89	61-133	
1,4-Dioxane	1220	ND	766	63	64-124	F1

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-134080-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: F1719.D

Lab ID: 480-134080-1 MSD Client ID: HFL-MW-105(22-24) MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	49.8	47.8	96	20	30	77-121	
1,1,2,2-Tetrachloroethane	49.8	41.0	82	15	30	80-120	
1,1,2-Trichloro-1,2,2-trifluoroethane	49.8	46.5	94	22	30	60-140	
1,1,2-Trichloroethane	49.8	45.8	92	19	30	78-122	
1,1-Dichloroethane	49.8	50.6	102	21	30	73-126	
1,1-Dichloroethene	49.8	47.9	96	22	30	59-125	
1,2,4-Trichlorobenzene	49.8	33.4	67	19	30	64-120	
1,2-Dibromo-3-Chloropropane	49.8	32.6	66	13	30	63-124	
1,2-Dibromoethane	49.8	42.3	85	19	30	78-120	
1,2-Dichlorobenzene	49.8	42.4	85	22	30	75-120	
1,2-Dichloroethane	49.8	44.9	90	19	30	77-122	
1,2-Dichloropropane	49.8	50.2	101	22	30	75-124	
1,3-Dichlorobenzene	49.8	42.0	84	23	30	74-120	
1,4-Dichlorobenzene	49.8	40.5	81	24	30	73-120	
2-Butanone (MEK)	249	173	69	15	30	70-134	F1
2-Hexanone	249	169	68	15	30	59-130	
4-Methyl-2-pentanone (MIBK)	249	183	74	13	30	65-133	
Acetone	249	165	66	22	30	61-137	
Benzene	49.8	50.7	102	22	30	79-127	
Bromodichloromethane	49.8	50.5	101	19	30	80-122	
Bromoform	49.8	40.6	82	13	30	68-126	
Bromomethane	49.8	51.4	103	18	30	37-149	
Carbon disulfide	49.8	41.8	84	25	30	64-131	
Carbon tetrachloride	49.8	45.7	92	19	30	75-135	
Chlorobenzene	49.8	46.3	93	24	30	76-124	
Chloroethane	49.8	49.9	100	22	30	69-135	
Chloroform	49.8	51.2	103	21	30	80-120	
Chloromethane	49.8	44.6	90	23	30	63-127	
cis-1,2-Dichloroethene	49.8	49.6	100	21	30	80-120	
cis-1,3-Dichloropropene	49.8	44.3	89	19	30	80-120	
Cyclohexane	49.8	45.9	92	23	30	65-120	
Dibromochloromethane	49.8	48.2	97	17	30	76-125	
Dichlorodifluoromethane	49.8	47.5	96	24	30	57-142	
Ethylbenzene	49.8	48.2	97	23	30	80-120	
Isopropylbenzene	49.8	48.0	96	23	30	72-120	
Methyl acetate	99.5	71.5	72	22	30	55-136	
Methyl tert-butyl ether	49.8	44.1	89	15	30	63-125	
Methylcyclohexane	49.8	46.3	93	23	30	60-140	
Methylene Chloride	49.8	44.5	89	20	30	61-127	
Styrene	49.8	45.0	90	23	30	80-120	
Tetrachloroethene	49.8	46.9	94	24	30	74-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

Data Usability Summary Report

Site: Hoosick Falls Landfill
Laboratory: Test America - Buffalo, Amherst, NY
SDG: 480-134613-1
Parameters: Metals
Data Reviewer: Samir A. Naguib/TRC
Peer Reviewer: Elizabeth Denly/TRC
Date: May 25, 2018

Sample Reviewed and Evaluation Summary

1 soil sample: HFL-MW-106 (19-21)

The above-listed soil sample was collected on April 20, 2018 and was analyzed for the following parameter:

- Metals by SW-846 Methods 6010C/7471B

The data validation was performed in accordance with the following USEPA guidance, modified for the SW-846 methodologies utilized:

- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017

The data were evaluated based on the following parameters:

	•	Overall Evaluation of Data and Potential Usability Issues
*	•	Data Completeness
*	•	Holding Times and Sample Preservation
	•	Initial and Continuing Calibrations
	•	Interference Check Sample (ICS) Results
	•	Blanks
NA	•	Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
NA	•	ICP Serial Dilution Results
*	•	Laboratory Control Sample (LCS) Results
NA	•	Field Duplicate Results
*	•	Percent Solids
	•	Sample Results and Reported Quantitation Limits (QLs)

*	-	All criteria were met.
NA	-	MS/MSDs, serial dilutions and field duplicates were not associated with this sample set.

Overall Evaluation of Data and Potential Usability Issues

All results are usable for project objectives. Qualifications applied to the data as a result of sampling error were not required. Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select metals results that were detected between the method detection limit (MDL) and QL. These results were qualified as estimated (J) in the associated samples. These results can be used for project objectives as estimated values, which may have a minor impact on the data usability.

- The nondetect result for antimony in sample HFL-MW-106 (19-21) was qualified as estimated (UJ) with a potential low bias due to negative interference in the ICS analysis. This result can be used for project objectives as a nondetect result with an estimated QL, which may have a minor impact on the data usability.

- The positive result for cadmium in sample HFL-MW-106 (19-21) was qualified as estimated (J-) with a potential low bias due to negative interference in the ICS analyses. However, since the positive result for cadmium was also qualified as estimated (J) due to quantitation below the QL, the overall qualification for cadmium was estimated (J) in this sample. This result can be used for project objectives as an estimated value, which may have a minor impact on the data usability.

Data Completeness

The data package was a complete Level IV data deliverable package.

Holding Times and Sample Preservation

All holding time and sample preservation method criteria were met for the metals analyses.

Initial and Continuing Calibrations

The initial calibration verification (ICV) and/or continuing calibration verification (CCV) percent recoveries (%Rs) met the method acceptance limits for the metals analyses. All initial calibration coefficients (r) were >0.995, as applicable.

The following table summarizes the %Rs that did not meet the method acceptance criteria in the low-level continuing calibration verification (CCVL) standards associated with the sample in this data set.

CCVL ID	Analyte	%R	%R QC Limits	Validation Actions
480-410722/17 04/24/18 @ 11:28	Manganese	131	70-130	No qualification was required due to the high %R since manganese was detected in the associated sample at >10x the QL.
480-410722/29 04/24/18 @ 12:12				
Associated sample: HFL-MW-106 (19-21)				

Interference Check Sample (ICS) Results

All analytes recovered within the acceptance limits in the ICSAB sample analyses; however, several analytes were detected as negative interference in the ICSA analysis. The interferent, iron, was detected in sample HFL-MW-106 (19-21) at a level comparable to the ICSA solution.

The following table lists the concentration found in the ICSA for analytes that were impacted by the iron interferent and the validation actions.

ICSA Date	Analyte	ICSA Concentration (mg/L)	Validation Actions
04/24/18 @10:44	Antimony	-0.0075	The nondetect result for antimony in sample HFL-MW-106 (19-21) was qualified as estimated (UJ) with a potential low bias.
	Cadmium	-0.0006	The positive result for cadmium in sample HFL-MW-106 (19-21) was qualified as estimated (J-) with a potential low bias. However, since the positive result was also qualified as estimated (J) due to quantitation below QL, the overall qualification was estimated (J).
	Cobalt	-0.0010	No qualifications were required since the positive results for cobalt lead, and nickel in sample HFL-MW-106 (19-21) were >10x the absolute value of the negative concentration, after corrected for the soil preparation factor.
	Lead	-0.0038	
	Nickel	-0.0024	
Associated sample: HFL-MW-106 (19-21)			

Blanks

The following table summarizes the blank contaminants, the concentrations detected, and the resulting validation actions.

Preparation Blank ID	Analyte	Blank Concentration	Validation Actions
MB-480-410124/1-A	Calcium	5.02 J mg/Kg	No qualifications were required since the sample results for calcium, chromium and iron were greater than the 10x the blank results.
	Chromium	0.265 J mg/Kg	
	Iron	3.40 J mg/Kg	
Associated sample: HFL-MW-106 (19-21)			

MS/MSD Results

MS and MSD analyses were not performed on the sample from this SDG.

ICP Serial Dilution Results

ICP serial dilution analysis was not performed on the sample from this SDG.

LCS Results

The %Rs for all metals met the laboratory acceptance criteria in the LCSs.

Field Duplicate Results

No field duplicate pairs were submitted with this sample set.

Percent Solids

The percent solids for the soil sample in this data set was >30%; thus, no qualification was required.

Sample Results and Reported Quantitation Limits

Select metal results were reported between the MDL and QL. These results were qualified as estimated (J) in the associated samples by the laboratory. Sample calculations were spot-checked; there were no errors noted. There were no dilutions performed on the sample in this data set.

QUALIFIED FORM Is

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HFL-MW-106 (19-21)
Lab Sample ID: 480-134613-1
Lab Name: TestAmerica Buffalo
Job No.: 480-134613-1
SDG ID.:
Matrix: Solid
Date Sampled: 04/20/2018 11:10
Reporting Basis: DRY
Date Received: 04/21/2018 01:45
% Solids: 88.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	15800	10.8	4.7	mg/Kg			1	6010C
7440-36-0	Antimony	ND	16.2	0.43	mg/Kg		UJ	1	6010C
7440-38-2	Arsenic	4.9	2.2	0.43	mg/Kg			1	6010C
7440-39-3	Barium	121	0.54	0.12	mg/Kg			1	6010C
7440-41-7	Beryllium	0.73	0.22	0.030	mg/Kg			1	6010C
7440-43-9	Cadmium	0.064	0.22	0.032	mg/Kg		J	1	6010C
7440-70-2	Calcium	1080	53.9	3.6	mg/Kg			1	6010C
7440-47-3	Chromium	19.7	0.54	0.22	mg/Kg			1	6010C
7440-48-4	Cobalt	9.0	0.54	0.054	mg/Kg			1	6010C
7440-50-8	Copper	19.9	1.1	0.23	mg/Kg			1	6010C
7439-89-6	Iron	21300	10.8	3.8	mg/Kg			1	6010C
7439-92-1	Lead	10.6	1.1	0.26	mg/Kg			1	6010C
7439-95-4	Magnesium	5150	21.6	1.0	mg/Kg			1	6010C
7439-96-5	Manganese	415	0.22	0.035	mg/Kg			1	6010C
7440-02-0	Nickel	20.0	5.4	0.25	mg/Kg			1	6010C
7440-09-7	Potassium	5210	32.4	21.6	mg/Kg			1	6010C
7782-49-2	Selenium	ND	4.3	0.43	mg/Kg			1	6010C
7440-22-4	Silver	ND	0.65	0.22	mg/Kg			1	6010C
7440-23-5	Sodium	90.0	151	14.0	mg/Kg	J		1	6010C
7440-28-0	Thallium	ND	6.5	0.32	mg/Kg			1	6010C
7440-62-2	Vanadium	28.2	0.54	0.12	mg/Kg			1	6010C
7440-66-6	Zinc	55.7	2.2	0.69	mg/Kg			1	6010C
7439-97-6	Mercury	0.018	0.023	0.0093	mg/Kg	J		1	7471B

QC NONCONFORMANCE DOCUMENTATION

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

ICV Source: MEI_10_CCVL_00180 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00180

Analyte	ICVL 480-410722/7 04/24/2018 10:41				CCVL 480-410722/17 04/24/2018 11:28				CCVL 480-410722/29 04/24/2018 12:12			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.218		0.200	109	0.202		0.200	101	0.191	J	0.200	96
Antimony	0.0198	J	0.0200	99	0.0179	J	0.0200	89	0.0176	J	0.0200	88
Arsenic	0.0143	J	0.0150	95	0.0143	J	0.0150	96	0.0153		0.0150	102
Barium	0.00208		0.00200	104	0.00204		0.00200	102	0.00202		0.00200	101
Beryllium	0.00203		0.00200	102	0.00201		0.00200	101	0.00197	J	0.00200	99
Cadmium	0.00199	J	0.00200	100	0.00195	J	0.00200	98	0.00180	J	0.00200	90
Calcium	0.478	J	0.500	96	0.477	J	0.500	95	0.476	J	0.500	95
Chromium	0.00386	J	0.00400	97	0.00359	J	0.00400	90	0.00401		0.00400	100
Cobalt	0.00370	J	0.00400	93	0.00367	J	0.00400	92	0.00366	J	0.00400	92
Copper	0.00937	J	0.0100	94	0.00954	J	0.0100	95	0.00932	J	0.0100	93
Iron	0.0521		0.0500	104	0.0489	J	0.0500	98	0.0475	J	0.0500	95
Lead	0.00966	J	0.0100	97	0.00964	J	0.0100	96	0.00931	J	0.0100	93
Magnesium	0.195	J	0.200	97	0.195	J	0.200	97	0.194	J	0.200	97
Manganese	0.00389		0.00300	130	0.00392		0.00300	131	0.00392		0.00300	131
Nickel	0.00965	J	0.0100	97	0.00954	J	0.0100	95	0.00939	J	0.0100	94
Potassium	0.478	J	0.500	96	0.466	J	0.500	93	0.478	J	0.500	96
Selenium	0.0221	J	0.0250	88	0.0218	J	0.0250	87	0.0202	J	0.0250	81
Silver	0.00549	J	0.00600	92	0.00591	J	0.00600	99	0.00565	J	0.00600	94
Sodium	0.970	J	1.00	97	0.959	J	1.00	96	0.969	J	1.00	97
Thallium	0.0201		0.0200	100	0.0200		0.0200	100	0.0190	J	0.0200	95
Vanadium	0.00446	J	0.00500	89	0.00458	J	0.00500	92	0.00458	J	0.00500	92
Zinc	0.0111		0.0100	111	0.00964	J	0.0100	96	0.00953	J	0.0100	95

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Lab Sample ID: ICSA 480-410722/8 Instrument ID: ICAP2

Lab File ID: i2042418a-10.asc ICS Source: MEI_07_ICSA_00109

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	**500**	**472**	**94**
Antimony		**-0.0075**	
Arsenic		**0.0016**	
Barium		**0.0007**	
Beryllium		**0.0000**	
Cadmium		**-0.0006**	
Calcium	**500**	**450**	**90**
Chromium		**0.0002**	
Cobalt		**-0.0010**	
Copper		**0.0013**	
Iron	**200**	**179**	**89**
Lead		**-0.0038**	
Magnesium	**500**	**495**	**99**
Manganese		**-0.0011**	
Nickel		**-0.0024**	
Potassium		**0.0120**	
Selenium		**0.0021**	
Silver		**-0.0002**	
Sodium		**0.0364**	
Thallium		**-0.0007**	
Vanadium		**0.0004**	
Zinc		**0.0057**	
Boron		*-0.0042*	
Lithium		*0.0149*	
Molybdenum		*-0.0001*	
Tin		*0.0056*	
Titanium		*-0.0006*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 480-410124/1-A

Instrument Code: ICAP1 Batch No.: 410498

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	ND			6010C
7440-36-0	Antimony	ND			6010C
7440-38-2	Arsenic	ND			6010C
7440-39-3	Barium	ND			6010C
7440-41-7	Beryllium	ND			6010C
7440-43-9	Cadmium	ND			6010C
7440-70-2	Calcium	5.02	J		6010C
7440-47-3	Chromium	0.265	J		6010C
7440-48-4	Cobalt	ND			6010C
7440-50-8	Copper	ND			6010C
7439-89-6	Iron	3.40	J		6010C
7439-92-1	Lead	ND			6010C
7439-95-4	Magnesium	ND			6010C
7439-96-5	Manganese	ND			6010C
7440-02-0	Nickel	ND			6010C
7440-09-7	Potassium	ND			6010C
7782-49-2	Selenium	ND			6010C
7440-22-4	Silver	ND			6010C
7440-23-5	Sodium	ND			6010C
7440-28-0	Thallium	ND			6010C
7440-62-2	Vanadium	ND			6010C
7440-66-6	Zinc	ND			6010C

Data Usability Summary Report

Site: Hoosick Falls Landfill
Laboratory: Test America - Buffalo, Amherst, NY
SDG: 480-134613-1
Parameters: Volatile Organic Compounds (VOCs), Semivolatile Organic Compounds (SVOCs), Pesticides, Polychlorinated Biphenyl (PCB) Aroclors
Data Reviewer: Samir A. Naguib/TRC
Peer Reviewer: Elizabeth Denly/TRC
Date: May 24, 2018

Samples Reviewed and Evaluation Summary

1 soil sample: HFL-MW-106 (19-21)

The above-listed soil sample was collected on April 20, 2018 and was analyzed for the following parameters:

- VOCs by SW-846 Methods 5035A/8260C
- SVOCs by SW-846 Methods 3550C/8270D
- Pesticides by SW-846 Methods 3550C/8081B
- PCB Aroclors by SW-846 Methods 3550C/8082A

The data validation was performed in accordance with the following USEPA guidance, modified for the SW-846 methodologies utilized:

- USEPA National Functional Guidelines for Organic Superfund Methods Data Review, January 2017

The data were evaluated based on the following parameters:

	• Overall Evaluation of Data and Potential Usability Issues
*	• Data Completeness
*	• Holding Times and Sample Preservation
*	• Gas Chromatography/Electron Capture Detector (GC/ECD) Instrument Performance Checks
*	• Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
	• Initial and Continuing Calibrations
*	• Blanks
*	• Surrogate Recoveries
*	• Internal Standards
*	• Laboratory Control Sample (LCS) Results
*	• Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
NA	• Field Duplicate Results
*	• Percent Solids
	• Sample Results and Reported Quantitation Limits

* • Target Compound Identification

* - All criteria were met.
NA - Field duplicates were not associated with this sample set.

Overall Evaluation of Data and Potential Usability Issues

All results are usable for project objectives with the exception of 1,4-dioxane in sample HFL-MW-106 (19-21) due to a low calibration response factor. Qualifications applied to the data as a result of sampling error were not required. Qualifications applied to the data as a result of analytical error are discussed below.

- The nondetect result for 1,4-dioxane in sample HFL-MW-106 (19-21) was rejected (R) due to low relative response factors (RRFs) in initial and continuing calibrations. This result is not usable for project objectives which may have a major impact on the data usability.

- Potential uncertainty exists for one VOC result that was below the lowest calibration standard and quantitation limit (QL). This result was qualified as estimated (J) in the associated sample. This result can be used for project objectives as an estimated value, which may have a minor impact on the data usability.

- The nondetect results for PCB-1232 and PCB-1242 in sample HFL-MW-106 (19-21) were qualified as estimated (UJ) due to continuing calibration nonconformances. These results can be used for project objectives as nondetects with estimated QLs, which may have a minor impact on the data usability.

Data Completeness

The data package was a complete Level IV data deliverable package.

Holding Times and Sample Preservation

All holding times and sample preservation method criteria were met for the VOC, SVOC, pesticide and PCB analyses.

GC/ECD Instrument Performance Checks

All criteria were met for the DDT/endrin breakdown checks associated with the pesticide analyses.

GC/MS Tunes

All criteria were met in the VOC and SVOC analyses.

Initial and Continuing Calibrations

VOCs

All percent relative standard deviations (%RSDs) were within the acceptance criteria in the initial calibrations (ICs) associated with the sample in this data set.

The following table summarizes the RRF that did not meet the method acceptance criteria in the IC associated with the samples in this data set.

IC	Compound	RRF	Validation Actions
HP5973F 03/16/18	1,4-Dioxane	0.0076	The nondetect result for 1,4-dioxane was rejected (R) in the associated sample.
Associated sample: HFL-MW-106 (19-21)			

The following table summarizes the RRF that did not meet the method acceptance criteria in the continuing calibration (CC) standard associated with the sample in this data set.

CC	Compound	RRF	%D	Validation Actions
HP5973F 04/24/18 23:05	1,4-Dioxane	0.0080	-	The nondetect result for 1,4-dioxane was rejected (R) in the associated sample.
Associated sample: HFL-MW-106 (19-21) - Criteria met				

SVOCs

All %RSDs, coefficients of determination (r^2), and RRFs were within the method acceptance criteria in the IC associated with the sample in this data set. The %Ds and RRFs were within the acceptance criteria in the associated CC standard.

Pesticides

All r^2 were within the method acceptance criteria in the ICs associated with the sample in this data set. The following table summarizes the %D that did not meet the method acceptance criteria in the CC standards associated with the sample in this data set.

CC	Instrument	Compound	%D		Validation Actions
			Col RTX-CLP-I	Col RTX-CLP-II	
04/26/18 @ 10:40	HP6890-25	Toxaphene Peak 2	-32.1	-	No qualification was required since the result was reported from column RTX-CLP-II which had acceptable %D.
Associated sample: HFL-MW-106 (19-21) - Criteria met					

PCBs

All %RSDs and r^2 were within the method acceptance criteria in the ICs associated with the samples in this data set. The following table summarizes the %Ds that did not meet the method acceptance criteria in the CC standards associated with the samples in this data set.

CC	Instrument	Compound	%D		Validation Actions
			Col ZB-5	Col ZB-35	
04/30/18 @ 10:32	HP5890-12	PCB-1221 Peak 1	-	97.9	No qualification required; results were reported from column ZB-5 which had acceptable average %Ds.
		PCB-1221 Peak 2	25.5	28.7	
		PCB-1221 Peak 3	-	21.6	
		PCB-1254 Peak 1	-	23.2	
		PCB-1254 Peak 3	22.3	29.3	
		PCB-1254 Peak 4	-	24.7	
04/30/18 @ 10:48		PCB-1232 Peak 1	46.0	34.1	The nondetect result for PCB-1232 in sample HFL-MW-106 (19-21) was qualified as estimated (UJ) since average %Ds on both columns were outside the acceptance criteria.
		PCB-1232 Peak 2	44.0	22.8	
		PCB-1232 Peak 3	47.4	23.7	
		PCB-1232 Peak 4	25.5	145.2	
		PCB-1232 Peak 5	27.9	27.1	
04/30/18 @ 11:18		PCB-1248 Peak 1	-21.4	-	No qualification was required since the average %D was within the acceptance criteria on both columns
		PCB-1248 Peak 4	-24.8	-	
04/30/18 @11:34		PCB-1242 Peak 1	32.0	-	The nondetect result for PCB-1242 in sample HFL-MW-106 (19-21) was qualified as estimated (UJ) since average %Ds on both columns were outside the acceptance criteria.
		PCB-1242 Peak 2	37.4	-	
		PCB-1242 Peak 3	45.5	48.7	
		PCB-1242 Peak 4	39.8	29.2	
		PCB-1242 Peak 5	58.9	22.5	
Associated sample: HFL-MW-106 (19-21)			- Criteria met		

Blanks

All method blanks for VOCs, SVOCs, pesticides and PCBs were free of contamination.

It should be noted that the laboratory put the method blank for pesticides through florisil cleanup although sample HFL-MW-106 (19-21) did not require florisil cleanup. The method blank should be treated in the same manner as the sample for proper evaluation. Since pesticides were not detected in the sample in this data set, data usability was not impacted.

Surrogate Recoveries

All criteria were met in the VOC, SVOC, pesticide, and PCB analyses.

Internal Standards

All criteria were met in the VOC, SVOC, pesticide and PCB analyses.

LCS Results

The LCS %Rs were within the laboratory acceptance criteria in the VOC, SVOC pesticide, and PCB analyses.

It should be noted that the laboratory put the LCS for pesticides through florisil cleanup although sample HFL-MW-106 (19-21) did not require florisil cleanup. The LCS should be treated in the same manner as the sample for proper evaluation. Since pesticides were not detected in the sample in this data set, data usability was not impacted.

MS/MSD Results

MS/MSD analyses were performed on sample HFL-MW-106 (19-21) for PCBs. All %Rs and RPDs met the laboratory acceptance criteria.

Field Duplicate Results

No field duplicate pairs were submitted with this sample set.

Percent Solids

The percent solids for the soil sample in this data set were >30%; thus, no qualification was required.

Sample Results and Reported Quantitation Limits

Only one VOC result was reported below the lowest calibration standard level and QL. This result was qualified as estimated (J) in the associated sample by the laboratory.

Sample calculations for all parameters were spot-checked; there were no errors noted. There were no dilutions performed on the sample in this data set.

For PCB analyses, the laboratory used the medium/high concentration extraction procedure and thus used a 2-gram rather than a 30-gram aliquot which is typically used for a low concentration extraction procedure. The QLs were elevated accordingly, but there was no impact on meeting the project action limits.

It should be noted that sample HFL-MW-106 (19-21) and associated MS/MSD were decanted prior to extraction for PCBs.

Target Compound Identification

All criteria were met for the VOC, SVOC, pesticide, and PCB analyses.

QUALIFIED FORM Is

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134613-1

SDG No.:

Client Sample ID: HFL-MW-106 (19-21) | Lab Sample ID: 480-134613-1

Matrix: Solid | Lab File ID: F1977.D

Analysis Method: 8260C | Date Collected: 04/20/2018 11:10

Sample wt/vol: 7.863(g) | Date Analyzed: 04/25/2018 01:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 11.9 | Level: (low/med) Low

Analysis Batch No.: 410682 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		3.6	0.26
79-34-5	1,1,2,2-Tetrachloroethane	ND		3.6	0.59
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.6	0.82
79-00-5	1,1,2-Trichloroethane	ND		3.6	0.47
75-34-3	1,1-Dichloroethane	ND		3.6	0.44
75-35-4	1,1-Dichloroethene	ND		3.6	0.44
120-82-1	1,2,4-Trichlorobenzene	ND		3.6	0.22
96-12-8	1,2-Dibromo-3-Chloropropane	ND		3.6	1.8
106-93-4	1,2-Dibromoethane	ND		3.6	0.46
95-50-1	1,2-Dichlorobenzene	ND		3.6	0.28
107-06-2	1,2-Dichloroethane	ND		3.6	0.18
78-87-5	1,2-Dichloropropane	ND		3.6	1.8
541-73-1	1,3-Dichlorobenzene	ND		3.6	0.19
106-46-7	1,4-Dichlorobenzene	ND		3.6	0.51
78-93-3	2-Butanone (MEK)	ND		18	1.3
591-78-6	2-Hexanone	ND		18	1.8
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		18	1.2
67-64-1	Acetone	6.5	J	18	3.0
71-43-2	Benzene	ND		3.6	0.18
75-27-4	Bromodichloromethane	ND		3.6	0.48
75-25-2	Bromoform	ND		3.6	1.8
74-83-9	Bromomethane	ND		3.6	0.32
75-15-0	Carbon disulfide	ND		3.6	1.8
56-23-5	Carbon tetrachloride	ND		3.6	0.35
108-90-7	Chlorobenzene	ND		3.6	0.48
75-00-3	Chloroethane	ND		3.6	0.82
67-66-3	Chloroform	ND		3.6	0.22
74-87-3	Chloromethane	ND		3.6	0.22
156-59-2	cis-1,2-Dichloroethene	ND		3.6	0.46
10061-01-5	cis-1,3-Dichloropropene	ND		3.6	0.52
110-82-7	Cyclohexane	ND		3.6	0.51
124-48-1	Dibromochloromethane	ND		3.6	0.46
75-71-8	Dichlorodifluoromethane	ND		3.6	0.30
100-41-4	Ethylbenzene	ND		3.6	0.25
98-82-8	Isopropylbenzene	ND		3.6	0.54

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134613-1

SDG No.:

Client Sample ID: HFL-MW-106 (19-21) | Lab Sample ID: 480-134613-1

Matrix: Solid | Lab File ID: F1977.D

Analysis Method: 8260C | Date Collected: 04/20/2018 11:10

Sample wt/vol: 7.863(g) | Date Analyzed: 04/25/2018 01:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 11.9 | Level: (low/med) Low

Analysis Batch No.: 410682 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		18	2.2
1634-04-4	Methyl tert-butyl ether	ND		3.6	0.35
108-87-2	Methylcyclohexane	ND		3.6	0.55
75-09-2	Methylene Chloride	ND		3.6	1.7
100-42-5	Styrene	ND		3.6	0.18
127-18-4	Tetrachloroethene	ND		3.6	0.48
108-88-3	Toluene	ND		3.6	0.27
156-60-5	trans-1,2-Dichloroethene	ND		3.6	0.37
10061-02-6	trans-1,3-Dichloropropene	ND		3.6	1.6
79-01-6	Trichloroethene	ND		3.6	0.79
75-69-4	Trichlorofluoromethane	ND		3.6	0.34
75-01-4	Vinyl chloride	ND		3.6	0.44
1330-20-7	Xylenes, Total	ND		7.2	0.61
123-91-1	1,4-Dioxane	~~ND~~ R ✓		~~72~~	~~16~~

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		64-126
460-00-4	4-Bromofluorobenzene (Surr)	101		72-126
1868-53-7	Dibromofluoromethane (Surr)	105		60-140
2037-26-5	Toluene-d8 (Surr)	104		71-125

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134613-1

SDG No.:

Client Sample ID: HFL-MW-106 (19-21) | Lab Sample ID: 480-134613-1

Matrix: Solid | Lab File ID: U3307407.D

Analysis Method: 8270D | Date Collected: 04/20/2018 11:10

Extract. Method: 3550C | Date Extracted: 05/02/2018 07:03

Sample wt/vol: 30.48(g) | Date Analyzed: 05/04/2018 00:54

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 412413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	Biphenyl	ND		190	28
108-60-1	bis (2-chloroisopropyl) ether	ND		190	38
95-95-4	2,4,5-Trichlorophenol	ND		190	51
88-06-2	2,4,6-Trichlorophenol	ND		190	38
120-83-2	2,4-Dichlorophenol	ND		190	20
105-67-9	2,4-Dimethylphenol	ND		190	46
51-28-5	2,4-Dinitrophenol	ND		1900	880
121-14-2	2,4-Dinitrotoluene	ND		190	39
606-20-2	2,6-Dinitrotoluene	ND		190	22
91-58-7	2-Chloronaphthalene	ND		190	31
95-57-8	2-Chlorophenol	ND		190	35
95-48-7	2-Methylphenol	ND		190	22
91-57-6	2-Methylnaphthalene	ND		190	38
88-74-4	2-Nitroaniline	ND		370	28
88-75-5	2-Nitrophenol	ND		190	54
91-94-1	3,3'-Dichlorobenzidine	ND		370	220
99-09-2	3-Nitroaniline	ND		370	53
534-52-1	4,6-Dinitro-2-methylphenol	ND		370	190
101-55-3	4-Bromophenyl phenyl ether	ND		190	27
59-50-7	4-Chloro-3-methylphenol	ND		190	47
106-47-8	4-Chloroaniline	ND		190	47
7005-72-3	4-Chlorophenyl phenyl ether	ND		190	23
106-44-5	4-Methylphenol	ND		370	22
100-01-6	4-Nitroaniline	ND		370	99
100-02-7	4-Nitrophenol	ND		370	130
83-32-9	Acenaphthene	ND		190	28
208-96-8	Acenaphthylene	ND		190	25
98-86-2	Acetophenone	ND		190	26
120-12-7	Anthracene	ND		190	47
1912-24-9	Atrazine	ND		190	66
100-52-7	Benzaldehyde	ND		190	150
56-55-3	Benzo[a]anthracene	ND		190	19
50-32-8	Benzo[a]pyrene	ND		190	28
205-99-2	Benzo[b]fluoranthene	ND		190	30

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134613-1

SDG No.:

Client Sample ID: HFL-MW-106 (19-21) | Lab Sample ID: 480-134613-1

Matrix: Solid | Lab File ID: U3307407.D

Analysis Method: 8270D | Date Collected: 04/20/2018 11:10

Extract. Method: 3550C | Date Extracted: 05/02/2018 07:03

Sample wt/vol: 30.48(g) | Date Analyzed: 05/04/2018 00:54

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 412413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
191-24-2	Benzo[g,h,i]perylene	ND		190	20
207-08-9	Benzo[k]fluoranthene	ND		190	25
111-91-1	Bis(2-chloroethoxy)methane	ND		190	40
111-44-4	Bis(2-chloroethyl)ether	ND		190	25
117-81-7	Bis(2-ethylhexyl) phthalate	ND		190	65
85-68-7	Butyl benzyl phthalate	ND		190	31
105-60-2	Caprolactam	ND		190	57
86-74-8	Carbazole	ND		190	22
218-01-9	Chrysene	ND		190	42
53-70-3	Dibenz(a,h)anthracene	ND		190	34
84-74-2	Di-n-butyl phthalate	ND		190	32
117-84-0	Di-n-octyl phthalate	ND		190	22
132-64-9	Dibenzofuran	ND		190	22
84-66-2	Diethyl phthalate	ND		190	25
131-11-3	Dimethyl phthalate	ND		190	22
206-44-0	Fluoranthene	ND		190	20
86-73-7	Fluorene	ND		190	22
118-74-1	Hexachlorobenzene	ND		190	26
87-68-3	Hexachlorobutadiene	ND		190	28
77-47-4	Hexachlorocyclopentadiene	ND		190	26
67-72-1	Hexachloroethane	ND		190	25
193-39-5	Indeno[1,2,3-cd]pyrene	ND		190	23
78-59-1	Isophorone	ND		190	40
621-64-7	N-Nitrosodi-n-propylamine	ND		190	32
86-30-6	N-Nitrosodiphenylamine	ND		190	150
91-20-3	Naphthalene	ND		190	25
98-95-3	Nitrobenzene	ND		190	21
87-86-5	Pentachlorophenol	ND		370	190
85-01-8	Phenanthrene	ND		190	28
108-95-2	Phenol	ND		190	29
129-00-0	Pyrene	ND		190	22

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134613-1

SDG No.:

Client Sample ID: HFL-MW-106 (19-21) | Lab Sample ID: 480-134613-1

Matrix: Solid | Lab File ID: 25_07-099.D

Analysis Method: 8081B | Date Collected: 04/20/2018 11:10

Extraction Method: 3550C | Date Extracted: 04/24/2018 07:51

Sample wt/vol: 30.22(g) | Date Analyzed: 04/26/2018 12:57

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLPII ID: 0.53(mm)

% Moisture: 11.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 410968 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
72-54-8	4,4'-DDD	ND		1.9	0.37
72-55-9	4,4'-DDE	ND		1.9	0.39
50-29-3	4,4'-DDT	ND		1.9	0.44
309-00-2	Aldrin	ND		1.9	0.46
319-84-6	alpha-BHC	ND		1.9	0.34
5103-71-9	cis-Chlordane	ND		1.9	0.94
319-85-7	beta-BHC	ND		1.9	0.34
319-86-8	delta-BHC	ND		1.9	0.35
60-57-1	Dieldrin	ND		1.9	0.45
959-98-8	Endosulfan I	ND		1.9	0.36
33213-65-9	Endosulfan II	ND		1.9	0.34
1031-07-8	Endosulfan sulfate	ND		1.9	0.35
72-20-8	Endrin	ND		1.9	0.37
7421-93-4	Endrin aldehyde	ND		1.9	0.48
53494-70-5	Endrin ketone	ND		1.9	0.46
58-89-9	gamma-BHC (Lindane)	ND		1.9	0.34
5103-74-2	trans-Chlordane	ND		1.9	0.60
76-44-8	Heptachlor	ND		1.9	0.41
1024-57-3	Heptachlor epoxide	ND		1.9	0.48
72-43-5	Methoxychlor	ND		1.9	0.38
8001-35-2	Toxaphene	ND		19	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	79		45-120
877-09-8	Tetrachloro-m-xylene	64		30-124

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134613-1

SDG No.:

Client Sample ID: HFL-MW-106 (19-21) | Lab Sample ID: 480-134613-1

Matrix: Solid | Lab File ID: 12_015_064.D

Analysis Method: 8082A | Date Collected: 04/20/2018 11:10

Extraction Method: 3550C | Date Extracted: 04/27/2018 07:20

Sample wt/vol: 2.59(g) | Date Analyzed: 04/30/2018 21:10

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ZB-5 ID: 0.53(mm)

% Moisture: 11.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 411578 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.22	0.043
11104-28-2	PCB-1221	ND		0.22	0.043
11141-16-5	PCB-1232	~~ND~~ UJ ✓		0.22	0.043
53469-21-9	PCB-1242	~~ND~~ UJ ✓		0.22	0.043
12672-29-6	PCB-1248	ND		0.22	0.043
11097-69-1	PCB-1254	ND		0.22	0.10
11096-82-5	PCB-1260	ND		0.22	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	114		60-154
2051-24-3	DCB Decachlorobiphenyl	109		65-174

QC NONCONFORMANCE DOCUMENTATION

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1 Analy Batch No.: 404437

SDG No.:

Instrument ID: HP5973F GC Column: ZB-624 (30) ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/16/2018 16:48 Calibration End Date: 03/16/2018 19:22 Calibration ID: 33147

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	1.5961 1.7420	1.5836 1.6423	1.7088	1.7974	1.6600	Ave		1.6757			0.1000	4.7		20.0			
Isobutyl alcohol	+++++ 0.0765	0.0722 0.0715	0.0724	0.0806	0.0820	Ave		0.0759				6.0		20.0			
Benzene	5.8590 5.3915	5.5685 4.8315	5.9867	6.0662	5.4308	Ave		5.5906			0.5000	7.6		20.0			
1,2-Dichloroethane	2.0663 1.8414	1.9093 1.7130	2.0238	2.0409	1.8579	Ave		1.9218			0.1000	6.7		20.0			
n-Heptane	2.8768 2.5795	2.7767 2.3273	2.8573	2.9127	2.5736	Ave		2.7006				7.9		20.0			
Trichloroethene	1.4668 1.4322	1.4472 1.3367	1.5365	1.5680	1.4101	Ave		1.4568			0.2000	5.3		20.0			
Methylcyclohexane	2.7462 2.5504	2.6175 2.3694	2.8137	2.8389	2.5117	Ave		2.6354			0.1000	6.6		20.0			
1,2-Dichloropropane	1.3951 1.3318	1.2672 1.2657	1.3851	1.4326	1.3300	Ave		1.3439			0.1000	4.8		20.0			
1,4-Dioxane	+++++ 0.0073	0.0075 0.0070	0.0076	0.0082	0.0080	Ave		0.0076				6.1		20.0			
Dibromomethane	0.8297 0.8448	0.7967 0.8023	0.8624	0.8838	0.8428	Ave		0.8375			0.1000	3.7		20.0			
Bromodichloromethane	1.5430 1.7536	1.5185 1.6844	1.6906	1.7463	1.6836	Ave		1.6600			0.2000	5.6		20.0			
2-Chloroethyl vinyl ether	0.7847 0.9028	0.8115 0.8641	0.8630	0.9109	0.8769	Ave		0.8591				5.4		20.0			
cis-1,3-Dichloropropene	2.0608 2.1861	1.9207 2.0508	2.1500	2.2154	2.1424	Ave		2.1038			0.2000	4.8		20.0			
4-Methyl-2-pentanone (MIBK)	0.7042 0.6980	0.7531 0.5983	0.7883	0.8448	0.7687	Ave		0.7365			0.1000	10.7		20.0			
Toluene	1.9433 1.6792	1.7888 1.5630	1.9023	1.9096	1.7117	Ave		1.7854			0.4000	7.9		20.0			
trans-1,3-Dichloropropene	0.8604 0.9529	0.8373 0.9177	0.9244	0.9769	0.9461	Ave		0.9165			0.1000	5.5		20.0			
Ethyl methacrylate	0.8554 0.9029	0.8348 0.8673	0.8963	0.9430	0.9155	Ave		0.8879				4.2		20.0			
1,1,2-Trichloroethane	0.4950 0.4851	0.4934 0.4702	0.5134	0.5258	0.4896	Ave		0.4961			0.1000	3.7		20.0			
Tetrachloroethene	0.7527 0.7472	0.7573 0.7033	0.8289	0.8420	0.7571	Ave		0.7698			0.2000	6.3		20.0			
1,3-Dichloropropane	1.0273 0.9912	0.9933 0.9356	1.0493	1.0751	1.0009	Ave		1.0104				4.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Lab Sample ID: CCVIS 480-410682/8 Calibration Date: 04/24/2018 23:05

Instrument ID: HP5973F Calib Start Date: 03/16/2018 16:48

GC Column: ZB-624 (30) VOA ID: 0.25(mm) Calib End Date: 03/16/2018 19:22

Lab File ID: F1972.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	2.635	2.605	0.1000	49.4	50.0	-1.1	20.0
1,2-Dichloropropane	Ave	1.344	1.364	0.1000	50.7	50.0	1.5	20.0
1,4-Dioxane	Ave	0.0076	0.0080		1060	1000	5.7	50.0
Dibromomethane	Ave	0.8375	0.8446	0.1000	50.4	50.0	0.8	20.0
Bromodichloromethane	Ave	1.660	1.683	0.2000	50.7	50.0	1.4	20.0
2-Chloroethyl vinyl ether	Ave	0.8591	0.8433		49.1	50.0	-1.8	20.0
cis-1,3-Dichloropropene	Ave	2.104	2.117	0.2000	50.3	50.0	0.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7365	0.6711	0.1000	228	250	-8.9	20.0
Toluene	Ave	1.785	1.807	0.4000	50.6	50.0	1.2	20.0
trans-1,3-Dichloropropene	Ave	0.9165	0.8847	0.1000	48.3	50.0	-3.5	20.0
Ethyl methacrylate	Ave	0.8879	0.8494		47.8	50.0	-4.3	20.0
1,1,2-Trichloroethane	Ave	0.4961	0.4826	0.1000	48.6	50.0	-2.7	20.0
Tetrachloroethene	Ave	0.7698	0.8150	0.2000	52.9	50.0	5.9	20.0
1,3-Dichloropropane	Ave	1.010	1.006		49.8	50.0	-0.5	20.0
2-Hexanone	Ave	0.5687	0.5284	0.1000	232	250	-7.1	20.0
Dibromochloromethane	Ave	0.5864	0.6167	0.1000	52.6	50.0	5.2	20.0
1,2-Dibromoethane	Ave	0.6239	0.6322		50.7	50.0	1.3	20.0
Chlorobenzene	Ave	1.932	1.993	0.5000	51.6	50.0	3.1	20.0
Ethylbenzene	Ave	3.147	3.207	0.1000	51.0	50.0	1.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.5916	0.5830		49.3	50.0	-1.4	20.0
m,p-Xylene	Ave	1.299	1.342	0.1000	51.6	50.0	3.3	20.0
o-Xylene	Ave	1.231	1.246	0.3000	50.6	50.0	1.3	20.0
Styrene	Ave	2.191	2.216	0.3000	50.6	50.0	1.1	20.0
Bromoform	Ave	0.3805	0.3709	0.1000	48.7	50.0	-2.5	50.0
Isopropylbenzene	Ave	3.015	3.043	0.1000	50.5	50.0	0.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7587	0.7377	0.3000	48.6	50.0	-2.8	20.0
Bromobenzene	Ave	0.8441	0.8466		50.1	50.0	0.3	20.0
N-Propylbenzene	Ave	3.531	3.594		50.9	50.0	1.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2598	0.2369		45.6	50.0	-8.8	50.0
1,2,3-Trichloropropane	Ave	0.2562	0.2442		47.7	50.0	-4.7	20.0
2-Chlorotoluene	Ave	0.7657	0.7800		50.9	50.0	1.9	20.0
1,3,5-Trimethylbenzene	Ave	2.573	2.581		50.1	50.0	0.3	20.0
4-Chlorotoluene	Ave	0.8144	0.8361		51.3	50.0	2.7	20.0
tert-Butylbenzene	Ave	0.5922	0.5994		50.6	50.0	1.2	20.0
1,2,4-Trimethylbenzene	Ave	2.642	2.655		50.2	50.0	0.5	20.0
sec-Butylbenzene	Ave	3.246	3.289		50.7	50.0	1.3	20.0
4-Isopropyltoluene	Ave	2.832	2.874		50.7	50.0	1.5	20.0
1,3-Dichlorobenzene	Ave	1.593	1.605	0.6000	50.4	50.0	0.7	20.0
1,4-Dichlorobenzene	Ave	1.625	1.627	0.5000	50.1	50.0	0.2	20.0
n-Butylbenzene	Ave	2.505	2.527		50.4	50.0	0.9	20.0
1,2-Dichlorobenzene	Ave	1.487	1.457	0.4000	49.0	50.0	-2.0	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Lab Sample ID: CCV 480-410968/8 Calibration Date: 04/26/2018 10:40

Instrument ID: HP6890-25 Calib Start Date: 04/12/2018 15:48

GC Column: RTX-CLPI ID: 0.53(mm) Calib End Date: 04/12/2018 17:07

Lab File ID: 25_07-092.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Toxaphene Peak 1	Lin1		0.0646		0.545	0.500	9.0	20.0
Toxaphene Peak 2	Lin1		0.0451		0.340	0.500	-32.1*	20.0
Toxaphene Peak 3	Lin1		0.0527		0.558	0.500	11.6	20.0
Toxaphene Peak 4	Lin1		0.0517		0.595	0.500	19.0	20.0
Toxaphene Peak 5	Lin1		0.0322		0.479	0.500	-4.2	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Lab Sample ID: CCV 480-411578/5 Calibration Date: 04/30/2018 10:32

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 10:34

GC Column: ZB-5 ID: 0.53(mm) Calib End Date: 04/05/2018 11:05

Lab File ID: 12_015_042.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Ave	0.0433	0.0498		0.575	0.500	14.9	20.0
PCB-1221 Peak 2	Ave	0.0307	0.0385		0.627	0.500	25.5*	20.0
PCB-1221 Peak 3	Ave	0.0731	0.0844		0.577	0.500	15.4	20.0
PCB-1254 Peak 1	Ave	0.0904	0.1083		0.599	0.500	19.8	20.0
PCB-1254 Peak 2	Ave	0.0708	0.0844		0.596	0.500	19.3	20.0
PCB-1254 Peak 3	Ave	0.0745	0.0911		0.612	0.500	22.3*	20.0
PCB-1254 Peak 4	Ave	0.0467	0.0522		0.559	0.500	11.8	20.0
PCB-1254 Peak 5	Ave	0.0636	0.0762		0.599	0.500	19.8	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Lab Sample ID: CCV 480-411578/5 Calibration Date: 04/30/2018 10:32

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 10:34

GC Column: ZB-35 ID: 0.53(mm) Calib End Date: 04/05/2018 11:05

Lab File ID: 12_015_042.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Lin1		0.0232		0.990	0.500	97.9*	20.0
PCB-1221 Peak 2	Ave	0.0108	0.0139		0.643	0.500	28.7*	20.0
PCB-1221 Peak 3	Lin1		0.0412		0.608	0.500	21.6*	20.0
PCB-1254 Peak 1	Ave	0.0493	0.0607		0.616	0.500	23.2*	20.0
PCB-1254 Peak 2	Ave	0.0324	0.0384		0.592	0.500	18.4	20.0
PCB-1254 Peak 3	Ave	0.0806	0.1042		0.646	0.500	29.3*	20.0
PCB-1254 Peak 4	Ave	0.0818	0.1020		0.624	0.500	24.7*	20.0
PCB-1254 Peak 5	Lin1		0.0678		0.599	0.500	19.7	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Lab Sample ID: CCV 480-411578/6 Calibration Date: 04/30/2018 10:48

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 11:35

GC Column: ZB-5 ID: 0.53(mm) Calib End Date: 04/05/2018 12:06

Lab File ID: 12_015_043.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Ave	0.0314	0.0458		0.730	0.500	46.0*	20.0
PCB-1232 Peak 2	Ave	0.0250	0.0360		0.720	0.500	44.0*	20.0
PCB-1232 Peak 3	Lin1		0.0197		0.737	0.500	47.4*	20.0
PCB-1232 Peak 4	Ave	0.0322	0.0404		0.627	0.500	25.5*	20.0
PCB-1232 Peak 5	Ave	0.0158	0.0202		0.639	0.500	27.9*	20.0
PCB-1262 Peak 1	Ave	0.0572	0.0585		0.512	0.500	2.4	20.0
PCB-1262 Peak 2	Lin1		0.0552		0.644	0.500	28.8*	20.0
PCB-1262 Peak 3	Ave	0.0321	0.0413		0.643	0.500	28.7*	20.0
PCB-1262 Peak 4	Ave	0.0400	0.0557		0.696	0.500	39.3*	20.0
PCB-1262 Peak 5	Ave	0.0666	0.0885		0.665	0.500	32.9*	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Lab Sample ID: CCV 480-411578/6 Calibration Date: 04/30/2018 10:48

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 11:35

GC Column: ZB-35 ID: 0.53(mm) Calib End Date: 04/05/2018 12:06

Lab File ID: 12_015_043.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Lin1		0.0376		0.671	0.500	34.1*	20.0
PCB-1232 Peak 2	Ave	0.0276	0.0339		0.614	0.500	22.8*	20.0
PCB-1232 Peak 3	Ave	0.0361	0.0446		0.619	0.500	23.7*	20.0
PCB-1232 Peak 4	Lin1		0.0179		1.23	0.500	145.2*	20.0
PCB-1232 Peak 5	Lin1		0.0135		0.636	0.500	27.1*	20.0
PCB-1262 Peak 1	Ave	0.0612	0.0689		0.562	0.500	12.5	20.0
PCB-1262 Peak 2	Ave	0.0587	0.0674		0.574	0.500	14.7	20.0
PCB-1262 Peak 3	Ave	0.1301	0.1471		0.565	0.500	13.1	20.0
PCB-1262 Peak 4	Ave	0.0444	0.0536		0.604	0.500	20.8*	20.0
PCB-1262 Peak 5	Ave	0.1017	0.1191		0.586	0.500	17.1	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Lab Sample ID: CCV 480-411578/8 Calibration Date: 04/30/2018 11:18

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 13:38

GC Column: ZB-5 ID: 0.53(mm) Calib End Date: 04/05/2018 14:09

Lab File ID: 12_015_045.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Lin1		0.0365		0.393	0.500	-21.4*	20.0
PCB-1248 Peak 2	Ave	0.0489	0.0497		0.508	0.500	1.6	20.0
PCB-1248 Peak 3	Ave	0.0405	0.0411		0.507	0.500	1.5	20.0
PCB-1248 Peak 4	Lin1		0.0192		0.376	0.500	-24.8*	20.0
PCB-1248 Peak 5	Lin1		0.0563		0.567	0.500	13.3	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Lab Sample ID: CCV 480-411578/10 Calibration Date: 04/30/2018 11:34

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 12:37

GC Column: ZB-5 ID: 0.53(mm) Calib End Date: 04/05/2018 13:07

Lab File ID: 12_015_046.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Ave	0.0640	0.0844		0.660	0.500	32.0*	20.0
PCB-1242 Peak 2	Ave	0.0325	0.0446		0.687	0.500	37.4*	20.0
PCB-1242 Peak 3	Ave	0.0362	0.0526		0.727	0.500	45.5*	20.0
PCB-1242 Peak 4	Lin1		0.0598		0.699	0.500	39.8*	20.0
PCB-1242 Peak 5	Lin1		0.0551		0.795	0.500	58.9*	20.0
PCB-1268 Peak 1	Ave	0.1029	0.1643		0.798	0.500	59.6*	20.0
PCB-1268 Peak 2	Ave	0.1830	0.2885		0.788	0.500	57.6*	20.0
PCB-1268 Peak 3	Ave	0.1115	0.1702		0.763	0.500	52.7*	20.0
PCB-1268 Peak 4	Ave	0.0482	0.0973		1.01	0.500	102.1*	20.0
PCB-1268 Peak 5	Ave	0.3921	0.6130		0.782	0.500	56.3*	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Lab Sample ID: CCV 480-411578/10 Calibration Date: 04/30/2018 11:34

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 12:37

GC Column: ZB-35 ID: 0.53(mm) Calib End Date: 04/05/2018 13:07

Lab File ID: 12_015_046.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Ave	0.0732	0.0870		0.594	0.500	18.9	20.0
PCB-1242 Peak 2	Ave	0.0303	0.0345		0.570	0.500	14.1	20.0
PCB-1242 Peak 3	Ave	0.0398	0.0591		0.743	0.500	48.7*	20.0
PCB-1242 Peak 4	Lin1		0.0437		0.646	0.500	29.2*	20.0
PCB-1242 Peak 5	Ave	0.0295	0.0361		0.612	0.500	22.5*	20.0
PCB-1268 Peak 1	Ave	0.1217	0.1481		0.609	0.500	21.7*	20.0
PCB-1268 Peak 2	Lin1		0.2457		0.729	0.500	45.8*	20.0
PCB-1268 Peak 3	Ave	0.1326	0.1466		0.553	0.500	10.6	20.0
PCB-1268 Peak 4	Ave	0.0582	0.0766		0.658	0.500	31.6*	20.0
PCB-1268 Peak 5	Lin1		0.5779		0.785	0.500	57.1*	20.0

Data Usability Summary Report

Site: Hoosick Falls Landfill
Laboratory: Test America - Buffalo, Amherst, NY
SDG: 480-134613-1
Parameters: Volatile Organic Compounds (VOCs), Semivolatile Organic Compounds (SVOCs), Pesticides, Polychlorinated Biphenyl (PCB) Aroclors
Data Reviewers: Samir A. Naguib and Kristen Morin/TRC
Peer Reviewer: Elizabeth Denly/TRC
Date: May 24, 2018
Revision Date: July 24, 2018

Samples Reviewed and Evaluation Summary

1 soil sample: HFL-MW-106 (19-21)

The above-listed soil sample was collected on April 20, 2018 and was analyzed for the following parameters:

- VOCs by SW-846 Methods 5035A/8260C
- SVOCs by SW-846 Methods 3550C/8270D
- Pesticides by SW-846 Methods 3550C/8081B
- PCB Aroclors by SW-846 Methods 3550C/8082A

The data validation was performed in accordance with the following USEPA guidance, modified for the SW-846 methodologies utilized:

- USEPA National Functional Guidelines for Organic Superfund Methods Data Review, January 2017

The data were evaluated based on the following parameters:

	•	Overall Evaluation of Data and Potential Usability Issues
*	•	Data Completeness
*	•	Holding Times and Sample Preservation
*	•	Gas Chromatography/Electron Capture Detector (GC/ECD) Instrument Performance Checks
*	•	Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
	•	Initial and Continuing Calibrations
*	•	Blanks
*	•	Surrogate Recoveries
*	•	Internal Standards
*	•	Laboratory Control Sample (LCS) Results
*	•	Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
NA	•	Field Duplicate Results
*	•	Percent Solids

- Sample Results and Reported Quantitation Limits
* • Target Compound Identification

* - All criteria were met.
NA - Field duplicates were not associated with this sample set.

Overall Evaluation of Data and Potential Usability Issues

All results are usable for project objectives with the exception of 1,4-dioxane (VOC) in sample HFL-MW-106 (19-21) due to low VOC calibration response factors. Qualifications applied to the data as a result of sampling error were not required. Qualifications applied to the data as a result of analytical error are discussed below.

- The nondetect VOC result for 1,4-dioxane in sample HFL-MW-106 (19-21) was rejected (R) due to low relative response factors (RRFs) in initial and continuing calibrations. This result is not usable for project objectives. Since the result for 1,4-dioxane from the SVOC analysis of this sample was usable, there was no adverse impact on the data usability.

- Potential uncertainty exists for one VOC result that was below the lowest calibration standard and quantitation limit (QL). This result was qualified as estimated (J) in the associated sample. This result can be used for project objectives as an estimated value, which may have a minor impact on the data usability.

- The nondetect results for PCB-1232 and PCB-1242 in sample HFL-MW-106 (19-21) were qualified as estimated (UJ) due to continuing calibration nonconformances. These results can be used for project objectives as nondetects with estimated QLs, which may have a minor impact on the data usability.

Data Completeness

The data package was a complete Level IV data deliverable package.

The data package was revised on July 17, 2018 to add 1,4-dioxane to the SVOC analysis.

Holding Times and Sample Preservation

All holding times and sample preservation method criteria were met for the VOC, SVOC, pesticide and PCB analyses.

GC/ECD Instrument Performance Checks

All criteria were met for the DDT/endrin breakdown checks associated with the pesticide analyses.

GC/MS Tunes

All criteria were met in the VOC and SVOC analyses.

Initial and Continuing Calibrations

VOCs

All percent relative standard deviations (%RSDs) were within the acceptance criteria in the initial calibrations (ICs) associated with the sample in this data set.

The following table summarizes the RRF that did not meet the method acceptance criteria in the IC associated with the samples in this data set.

IC	Compound	RRF	Validation Actions
HP5973F 03/16/18	1,4-Dioxane	0.0076	The nondetect result for 1,4-dioxane was rejected (R) in the associated sample. The result for 1,4-dioxane from the SVOC analysis should be used for project objectives.
Associated sample: HFL-MW-106 (19-21)			

The following table summarizes the RRF that did not meet the method acceptance criteria in the continuing calibration (CC) standard associated with the sample in this data set.

CC	Compound	RRF	%D	Validation Actions
HP5973F 04/24/18 23:05	1,4-Dioxane	0.0080	-	The nondetect result for 1,4-dioxane was rejected (R) in the associated sample. The result for 1,4-dioxane from the SVOC analysis should be used for project objectives.
Associated sample: HFL-MW-106 (19-21) - Criteria met				

SVOCs

All %RSDs, coefficients of determination (r^2), and RRFs were within the method acceptance criteria in the IC associated with the sample in this data set. The %Ds and RRFs were within the acceptance criteria in the associated CC standard.

Pesticides

All r^2 were within the method acceptance criteria in the ICs associated with the sample in this data set. The following table summarizes the %D that did not meet the method acceptance criteria in the CC standards associated with the sample in this data set.

CC	Instrument	Compound	%D		Validation Actions
			Col RTX-CLP-I	Col RTX-CLP-II	
04/26/18 @ 10:40	HP6890-25	Toxaphene Peak 2	-32.1	-	No qualification was required since the result was reported from column RTX-CLP-II which had acceptable %D.
Associated sample: HFL-MW-106 (19-21)			- Criteria met		

PCBs

All %RSDs and r^2 were within the method acceptance criteria in the ICs associated with the samples in this data set. The following table summarizes the %Ds that did not meet the method acceptance criteria in the CC standards associated with the samples in this data set.

CC	Instrument	Compound	%D		Validation Actions
			Col ZB-5	Col ZB-35	
04/30/18 @ 10:32	HP5890-12	PCB-1221 Peak 1	-	97.9	No qualification required; results were reported from column ZB-5 which had acceptable average %Ds.
		PCB-1221 Peak 2	25.5	28.7	
		PCB-1221 Peak 3	-	21.6	
		PCB-1254 Peak 1	-	23.2	
		PCB-1254 Peak 3	22.3	29.3	
		PCB-1254 Peak 4	-	24.7	
04/30/18 @ 10:48		PCB-1232 Peak 1	46.0	34.1	The nondetect result for PCB-1232 in sample HFL-MW-106 (19-21) was qualified as estimated (UJ) since average %Ds on both columns were outside the acceptance criteria.
		PCB-1232 Peak 2	44.0	22.8	
		PCB-1232 Peak 3	47.4	23.7	
		PCB-1232 Peak 4	25.5	145.2	
		PCB-1232 Peak 5	27.9	27.1	
04/30/18 @ 11:18		PCB-1248 Peak 1	-21.4	-	No qualification was required since the average %D was within the acceptance criteria on both columns
		PCB-1248 Peak 4	-24.8	-	
04/30/18 @11:34		PCB-1242 Peak 1	32.0	-	The nondetect result for PCB-1242 in sample HFL-MW-106 (19-21) was qualified as estimated (UJ) since average %Ds on both columns were outside the acceptance criteria.
		PCB-1242 Peak 2	37.4	-	
		PCB-1242 Peak 3	45.5	48.7	
		PCB-1242 Peak 4	39.8	29.2	
		PCB-1242 Peak 5	58.9	22.5	
Associated sample: HFL-MW-106 (19-21)			- Criteria met		

Blanks

All method blanks for VOCs, SVOCs, pesticides and PCBs were free of contamination.

It should be noted that the laboratory put the method blank for pesticides through florisil cleanup although sample HFL-MW-106 (19-21) did not require florisil cleanup. The method blank should be treated in the same manner as the sample for proper evaluation. Since pesticides were not detected in the sample in this data set, data usability was not impacted.

Surrogate Recoveries

All criteria were met in the VOC, SVOC, pesticide, and PCB analyses.

Internal Standards

All criteria were met in the VOC, SVOC, pesticide and PCB analyses.

LCS Results

The LCS %Rs were within the laboratory acceptance criteria in the VOC, SVOC pesticide, and PCB analyses.

It should be noted that the laboratory put the LCS for pesticides through florisil cleanup although sample HFL-MW-106 (19-21) did not require florisil cleanup. The LCS should be treated in the same manner as the sample for proper evaluation. Since pesticides were not detected in the sample in this data set, data usability was not impacted.

MS/MSD Results

MS/MSD analyses were performed on sample HFL-MW-106 (19-21) for PCBs. All %Rs and RPDs met the laboratory acceptance criteria.

Field Duplicate Results

No field duplicate pairs were submitted with this sample set.

Percent Solids

The percent solids for the soil sample in this data set were >30%; thus, no qualification was required.

Sample Results and Reported Quantitation Limits

Only one VOC result was reported below the lowest calibration standard level and QL. This result was qualified as estimated (J) in the associated sample by the laboratory.

1,4-Dioxane was reported by both VOC and SVOC methods; the nondetect result for 1,4-dioxane in the SVOC analysis of the sample in this SDG should be used for decision-making purposes since the nondetect VOC result was rejected.

Sample calculations for all parameters were spot-checked; there were no errors noted. There were no dilutions performed on the sample in this data set.

For PCB analyses, the laboratory used the medium/high concentration extraction procedure and thus used a 2-gram rather than a 30-gram aliquot which is typically used for a low concentration

extraction procedure. The QLs were elevated accordingly, but there was no impact on meeting the project action limits.

It should be noted that sample HFL-MW-106 (19-21) and associated MS/MSD were decanted prior to extraction for PCBs.

Target Compound Identification

All criteria were met for the VOC, SVOC, pesticide, and PCB analyses.

QUALIFIED FORM Is

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134613-1

SDG No.:

Client Sample ID: HFL-MW-106 (19-21) | Lab Sample ID: 480-134613-1

Matrix: Solid | Lab File ID: F1977.D

Analysis Method: 8260C | Date Collected: 04/20/2018 11:10

Sample wt/vol: 7.863(g) | Date Analyzed: 04/25/2018 01:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 11.9 | Level: (low/med) Low

Analysis Batch No.: 410682 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		3.6	0.26
79-34-5	1,1,2,2-Tetrachloroethane	ND		3.6	0.59
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.6	0.82
79-00-5	1,1,2-Trichloroethane	ND		3.6	0.47
75-34-3	1,1-Dichloroethane	ND		3.6	0.44
75-35-4	1,1-Dichloroethene	ND		3.6	0.44
120-82-1	1,2,4-Trichlorobenzene	ND		3.6	0.22
96-12-8	1,2-Dibromo-3-Chloropropane	ND		3.6	1.8
106-93-4	1,2-Dibromoethane	ND		3.6	0.46
95-50-1	1,2-Dichlorobenzene	ND		3.6	0.28
107-06-2	1,2-Dichloroethane	ND		3.6	0.18
78-87-5	1,2-Dichloropropane	ND		3.6	1.8
541-73-1	1,3-Dichlorobenzene	ND		3.6	0.19
106-46-7	1,4-Dichlorobenzene	ND		3.6	0.51
78-93-3	2-Butanone (MEK)	ND		18	1.3
591-78-6	2-Hexanone	ND		18	1.8
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		18	1.2
67-64-1	Acetone	6.5	J	18	3.0
71-43-2	Benzene	ND		3.6	0.18
75-27-4	Bromodichloromethane	ND		3.6	0.48
75-25-2	Bromoform	ND		3.6	1.8
74-83-9	Bromomethane	ND		3.6	0.32
75-15-0	Carbon disulfide	ND		3.6	1.8
56-23-5	Carbon tetrachloride	ND		3.6	0.35
108-90-7	Chlorobenzene	ND		3.6	0.48
75-00-3	Chloroethane	ND		3.6	0.82
67-66-3	Chloroform	ND		3.6	0.22
74-87-3	Chloromethane	ND		3.6	0.22
156-59-2	cis-1,2-Dichloroethene	ND		3.6	0.46
10061-01-5	cis-1,3-Dichloropropene	ND		3.6	0.52
110-82-7	Cyclohexane	ND		3.6	0.51
124-48-1	Dibromochloromethane	ND		3.6	0.46
75-71-8	Dichlorodifluoromethane	ND		3.6	0.30
100-41-4	Ethylbenzene	ND		3.6	0.25
98-82-8	Isopropylbenzene	ND		3.6	0.54

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134613-1

SDG No.:

Client Sample ID: HFL-MW-106 (19-21) | Lab Sample ID: 480-134613-1

Matrix: Solid | Lab File ID: F1977.D

Analysis Method: 8260C | Date Collected: 04/20/2018 11:10

Sample wt/vol: 7.863(g) | Date Analyzed: 04/25/2018 01:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (30) VOA ID: 0.25(mm)

% Moisture: 11.9 | Level: (low/med) Low

Analysis Batch No.: 410682 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		18	2.2
1634-04-4	Methyl tert-butyl ether	ND		3.6	0.35
108-87-2	Methylcyclohexane	ND		3.6	0.55
75-09-2	Methylene Chloride	ND		3.6	1.7
100-42-5	Styrene	ND		3.6	0.18
127-18-4	Tetrachloroethene	ND		3.6	0.48
108-88-3	Toluene	ND		3.6	0.27
156-60-5	trans-1,2-Dichloroethene	ND		3.6	0.37
10061-02-6	trans-1,3-Dichloropropene	ND		3.6	1.6
79-01-6	Trichloroethene	ND		3.6	0.79
75-69-4	Trichlorofluoromethane	ND		3.6	0.34
75-01-4	Vinyl chloride	ND		3.6	0.44
1330-20-7	Xylenes, Total	ND		7.2	0.61
123-91-1	1,4-Dioxane	~~ND~~ R ✓		~~72~~	~~16~~

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		64-126
460-00-4	4-Bromofluorobenzene (Surr)	101		72-126
1868-53-7	Dibromofluoromethane (Surr)	105		60-140
2037-26-5	Toluene-d8 (Surr)	104		71-125

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134613-1

SDG No.:

Client Sample ID: HFL-MW-106 (19-21) | Lab Sample ID: 480-134613-1

Matrix: Solid | Lab File ID: U3307407.D

Analysis Method: 8270D | Date Collected: 04/20/2018 11:10

Extract. Method: 3550C | Date Extracted: 05/02/2018 07:03

Sample wt/vol: 30.48(g) | Date Analyzed: 05/04/2018 00:54

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 412413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	Biphenyl	ND		190	28
108-60-1	bis (2-chloroisopropyl) ether	ND		190	38
95-95-4	2,4,5-Trichlorophenol	ND		190	51
88-06-2	2,4,6-Trichlorophenol	ND		190	38
120-83-2	2,4-Dichlorophenol	ND		190	20
105-67-9	2,4-Dimethylphenol	ND		190	46
51-28-5	2,4-Dinitrophenol	ND		1900	880
121-14-2	2,4-Dinitrotoluene	ND		190	39
606-20-2	2,6-Dinitrotoluene	ND		190	22
91-58-7	2-Chloronaphthalene	ND		190	31
95-57-8	2-Chlorophenol	ND		190	35
95-48-7	2-Methylphenol	ND		190	22
91-57-6	2-Methylnaphthalene	ND		190	38
88-74-4	2-Nitroaniline	ND		370	28
88-75-5	2-Nitrophenol	ND		190	54
91-94-1	3,3'-Dichlorobenzidine	ND		370	220
99-09-2	3-Nitroaniline	ND		370	53
534-52-1	4,6-Dinitro-2-methylphenol	ND		370	190
101-55-3	4-Bromophenyl phenyl ether	ND		190	27
59-50-7	4-Chloro-3-methylphenol	ND		190	47
106-47-8	4-Chloroaniline	ND		190	47
7005-72-3	4-Chlorophenyl phenyl ether	ND		190	23
106-44-5	4-Methylphenol	ND		370	22
100-01-6	4-Nitroaniline	ND		370	99
100-02-7	4-Nitrophenol	ND		370	130
83-32-9	Acenaphthene	ND		190	28
208-96-8	Acenaphthylene	ND		190	25
98-86-2	Acetophenone	ND		190	26
120-12-7	Anthracene	ND		190	47
1912-24-9	Atrazine	ND		190	66
100-52-7	Benzaldehyde	ND		190	150
56-55-3	Benzo[a]anthracene	ND		190	19
50-32-8	Benzo[a]pyrene	ND		190	28
205-99-2	Benzo[b]fluoranthene	ND		190	30

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134613-1

SDG No.:

Client Sample ID: HFL-MW-106 (19-21) | Lab Sample ID: 480-134613-1

Matrix: Solid | Lab File ID: U3307407.D

Analysis Method: 8270D | Date Collected: 04/20/2018 11:10

Extract. Method: 3550C | Date Extracted: 05/02/2018 07:03

Sample wt/vol: 30.48(g) | Date Analyzed: 05/04/2018 00:54

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 412413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
191-24-2	Benzo[g,h,i]perylene	ND		190	20
207-08-9	Benzo[k]fluoranthene	ND		190	25
111-91-1	Bis(2-chloroethoxy)methane	ND		190	40
111-44-4	Bis(2-chloroethyl)ether	ND		190	25
117-81-7	Bis(2-ethylhexyl) phthalate	ND		190	65
85-68-7	Butyl benzyl phthalate	ND		190	31
105-60-2	Caprolactam	ND		190	57
86-74-8	Carbazole	ND		190	22
218-01-9	Chrysene	ND		190	42
53-70-3	Dibenz(a,h)anthracene	ND		190	34
84-74-2	Di-n-butyl phthalate	ND		190	32
117-84-0	Di-n-octyl phthalate	ND		190	22
132-64-9	Dibenzofuran	ND		190	22
84-66-2	Diethyl phthalate	ND		190	25
131-11-3	Dimethyl phthalate	ND		190	22
206-44-0	Fluoranthene	ND		190	20
86-73-7	Fluorene	ND		190	22
118-74-1	Hexachlorobenzene	ND		190	26
87-68-3	Hexachlorobutadiene	ND		190	28
77-47-4	Hexachlorocyclopentadiene	ND		190	26
67-72-1	Hexachloroethane	ND		190	25
193-39-5	Indeno[1,2,3-cd]pyrene	ND		190	23
78-59-1	Isophorone	ND		190	40
621-64-7	N-Nitrosodi-n-propylamine	ND		190	32
86-30-6	N-Nitrosodiphenylamine	ND		190	150
91-20-3	Naphthalene	ND		190	25
98-95-3	Nitrobenzene	ND		190	21
87-86-5	Pentachlorophenol	ND		370	190
85-01-8	Phenanthrene	ND		190	28
108-95-2	Phenol	ND		190	29
129-00-0	Pyrene	ND		190	22
123-91-1	1,4-Dioxane	ND		220	61

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134613-1

SDG No.:

Client Sample ID: HFL-MW-106 (19-21) | Lab Sample ID: 480-134613-1

Matrix: Solid | Lab File ID: 25_07-099.D

Analysis Method: 8081B | Date Collected: 04/20/2018 11:10

Extraction Method: 3550C | Date Extracted: 04/24/2018 07:51

Sample wt/vol: 30.22(g) | Date Analyzed: 04/26/2018 12:57

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLPII ID: 0.53(mm)

% Moisture: 11.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 410968 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
72-54-8	4,4'-DDD	ND		1.9	0.37
72-55-9	4,4'-DDE	ND		1.9	0.39
50-29-3	4,4'-DDT	ND		1.9	0.44
309-00-2	Aldrin	ND		1.9	0.46
319-84-6	alpha-BHC	ND		1.9	0.34
5103-71-9	cis-Chlordane	ND		1.9	0.94
319-85-7	beta-BHC	ND		1.9	0.34
319-86-8	delta-BHC	ND		1.9	0.35
60-57-1	Dieldrin	ND		1.9	0.45
959-98-8	Endosulfan I	ND		1.9	0.36
33213-65-9	Endosulfan II	ND		1.9	0.34
1031-07-8	Endosulfan sulfate	ND		1.9	0.35
72-20-8	Endrin	ND		1.9	0.37
7421-93-4	Endrin aldehyde	ND		1.9	0.48
53494-70-5	Endrin ketone	ND		1.9	0.46
58-89-9	gamma-BHC (Lindane)	ND		1.9	0.34
5103-74-2	trans-Chlordane	ND		1.9	0.60
76-44-8	Heptachlor	ND		1.9	0.41
1024-57-3	Heptachlor epoxide	ND		1.9	0.48
72-43-5	Methoxychlor	ND		1.9	0.38
8001-35-2	Toxaphene	ND		19	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	79		45-120
877-09-8	Tetrachloro-m-xylene	64		30-124

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-134613-1

SDG No.:

Client Sample ID: HFL-MW-106 (19-21) | Lab Sample ID: 480-134613-1

Matrix: Solid | Lab File ID: 12_015_064.D

Analysis Method: 8082A | Date Collected: 04/20/2018 11:10

Extraction Method: 3550C | Date Extracted: 04/27/2018 07:20

Sample wt/vol: 2.59(g) | Date Analyzed: 04/30/2018 21:10

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ZB-5 ID: 0.53(mm)

% Moisture: 11.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 411578 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.22	0.043
11104-28-2	PCB-1221	ND		0.22	0.043
11141-16-5	PCB-1232	~~ND~~ UJ ✓		0.22	0.043
53469-21-9	PCB-1242	~~ND~~ UJ ✓		0.22	0.043
12672-29-6	PCB-1248	ND		0.22	0.043
11097-69-1	PCB-1254	ND		0.22	0.10
11096-82-5	PCB-1260	ND		0.22	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	114		60-154
2051-24-3	DCB Decachlorobiphenyl	109		65-174

QC NONCONFORMANCE DOCUMENTATION

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1 Analy Batch No.: 404437

SDG No.:

Instrument ID: HP5973F GC Column: ZB-624 (30) ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/16/2018 16:48 Calibration End Date: 03/16/2018 19:22 Calibration ID: 33147

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	1.5961 1.7420	1.5836 1.6423	1.7088	1.7974	1.6600	Ave		1.6757			0.1000	4.7		20.0			
Isobutyl alcohol	+++++ 0.0765	0.0722 0.0715	0.0724	0.0806	0.0820	Ave		0.0759				6.0		20.0			
Benzene	5.8590 5.3915	5.5685 4.8315	5.9867	6.0662	5.4308	Ave		5.5906			0.5000	7.6		20.0			
1,2-Dichloroethane	2.0663 1.8414	1.9093 1.7130	2.0238	2.0409	1.8579	Ave		1.9218			0.1000	6.7		20.0			
n-Heptane	2.8768 2.5795	2.7767 2.3273	2.8573	2.9127	2.5736	Ave		2.7006				7.9		20.0			
Trichloroethene	1.4668 1.4322	1.4472 1.3367	1.5365	1.5680	1.4101	Ave		1.4568			0.2000	5.3		20.0			
Methylcyclohexane	2.7462 2.5504	2.6175 2.3694	2.8137	2.8389	2.5117	Ave		2.6354			0.1000	6.6		20.0			
1,2-Dichloropropane	1.3951 1.3318	1.2672 1.2657	1.3851	1.4326	1.3300	Ave		1.3439			0.1000	4.8		20.0			
1,4-Dioxane	+++++ 0.0073	0.0075 0.0070	0.0076	0.0082	0.0080	Ave		0.0076				6.1		20.0			
Dibromomethane	0.8297 0.8448	0.7967 0.8023	0.8624	0.8838	0.8428	Ave		0.8375			0.1000	3.7		20.0			
Bromodichloromethane	1.5430 1.7536	1.5185 1.6844	1.6906	1.7463	1.6836	Ave		1.6600			0.2000	5.6		20.0			
2-Chloroethyl vinyl ether	0.7847 0.9028	0.8115 0.8641	0.8630	0.9109	0.8769	Ave		0.8591				5.4		20.0			
cis-1,3-Dichloropropene	2.0608 2.1861	1.9207 2.0508	2.1500	2.2154	2.1424	Ave		2.1038			0.2000	4.8		20.0			
4-Methyl-2-pentanone (MIBK)	0.7042 0.6980	0.7531 0.5983	0.7883	0.8448	0.7687	Ave		0.7365			0.1000	10.7		20.0			
Toluene	1.9433 1.6792	1.7888 1.5630	1.9023	1.9096	1.7117	Ave		1.7854			0.4000	7.9		20.0			
trans-1,3-Dichloropropene	0.8604 0.9529	0.8373 0.9177	0.9244	0.9769	0.9461	Ave		0.9165			0.1000	5.5		20.0			
Ethyl methacrylate	0.8554 0.9029	0.8348 0.8673	0.8963	0.9430	0.9155	Ave		0.8879				4.2		20.0			
1,1,2-Trichloroethane	0.4950 0.4851	0.4934 0.4702	0.5134	0.5258	0.4896	Ave		0.4961			0.1000	3.7		20.0			
Tetrachloroethene	0.7527 0.7472	0.7573 0.7033	0.8289	0.8420	0.7571	Ave		0.7698			0.2000	6.3		20.0			
1,3-Dichloropropane	1.0273 0.9912	0.9933 0.9356	1.0493	1.0751	1.0009	Ave		1.0104				4.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Lab Sample ID: CCVIS 480-410682/8 Calibration Date: 04/24/2018 23:05

Instrument ID: HP5973F Calib Start Date: 03/16/2018 16:48

GC Column: ZB-624 (30) VOA ID: 0.25(mm) Calib End Date: 03/16/2018 19:22

Lab File ID: F1972.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	2.635	2.605	0.1000	49.4	50.0	-1.1	20.0
1,2-Dichloropropane	Ave	1.344	1.364	0.1000	50.7	50.0	1.5	20.0
1,4-Dioxane	Ave	0.0076	0.0080		1060	1000	5.7	50.0
Dibromomethane	Ave	0.8375	0.8446	0.1000	50.4	50.0	0.8	20.0
Bromodichloromethane	Ave	1.660	1.683	0.2000	50.7	50.0	1.4	20.0
2-Chloroethyl vinyl ether	Ave	0.8591	0.8433		49.1	50.0	-1.8	20.0
cis-1,3-Dichloropropene	Ave	2.104	2.117	0.2000	50.3	50.0	0.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7365	0.6711	0.1000	228	250	-8.9	20.0
Toluene	Ave	1.785	1.807	0.4000	50.6	50.0	1.2	20.0
trans-1,3-Dichloropropene	Ave	0.9165	0.8847	0.1000	48.3	50.0	-3.5	20.0
Ethyl methacrylate	Ave	0.8879	0.8494		47.8	50.0	-4.3	20.0
1,1,2-Trichloroethane	Ave	0.4961	0.4826	0.1000	48.6	50.0	-2.7	20.0
Tetrachloroethene	Ave	0.7698	0.8150	0.2000	52.9	50.0	5.9	20.0
1,3-Dichloropropane	Ave	1.010	1.006		49.8	50.0	-0.5	20.0
2-Hexanone	Ave	0.5687	0.5284	0.1000	232	250	-7.1	20.0
Dibromochloromethane	Ave	0.5864	0.6167	0.1000	52.6	50.0	5.2	20.0
1,2-Dibromoethane	Ave	0.6239	0.6322		50.7	50.0	1.3	20.0
Chlorobenzene	Ave	1.932	1.993	0.5000	51.6	50.0	3.1	20.0
Ethylbenzene	Ave	3.147	3.207	0.1000	51.0	50.0	1.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.5916	0.5830		49.3	50.0	-1.4	20.0
m,p-Xylene	Ave	1.299	1.342	0.1000	51.6	50.0	3.3	20.0
o-Xylene	Ave	1.231	1.246	0.3000	50.6	50.0	1.3	20.0
Styrene	Ave	2.191	2.216	0.3000	50.6	50.0	1.1	20.0
Bromoform	Ave	0.3805	0.3709	0.1000	48.7	50.0	-2.5	50.0
Isopropylbenzene	Ave	3.015	3.043	0.1000	50.5	50.0	0.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7587	0.7377	0.3000	48.6	50.0	-2.8	20.0
Bromobenzene	Ave	0.8441	0.8466		50.1	50.0	0.3	20.0
N-Propylbenzene	Ave	3.531	3.594		50.9	50.0	1.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2598	0.2369		45.6	50.0	-8.8	50.0
1,2,3-Trichloropropane	Ave	0.2562	0.2442		47.7	50.0	-4.7	20.0
2-Chlorotoluene	Ave	0.7657	0.7800		50.9	50.0	1.9	20.0
1,3,5-Trimethylbenzene	Ave	2.573	2.581		50.1	50.0	0.3	20.0
4-Chlorotoluene	Ave	0.8144	0.8361		51.3	50.0	2.7	20.0
tert-Butylbenzene	Ave	0.5922	0.5994		50.6	50.0	1.2	20.0
1,2,4-Trimethylbenzene	Ave	2.642	2.655		50.2	50.0	0.5	20.0
sec-Butylbenzene	Ave	3.246	3.289		50.7	50.0	1.3	20.0
4-Isopropyltoluene	Ave	2.832	2.874		50.7	50.0	1.5	20.0
1,3-Dichlorobenzene	Ave	1.593	1.605	0.6000	50.4	50.0	0.7	20.0
1,4-Dichlorobenzene	Ave	1.625	1.627	0.5000	50.1	50.0	0.2	20.0
n-Butylbenzene	Ave	2.505	2.527		50.4	50.0	0.9	20.0
1,2-Dichlorobenzene	Ave	1.487	1.457	0.4000	49.0	50.0	-2.0	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Lab Sample ID: CCV 480-410968/8 Calibration Date: 04/26/2018 10:40

Instrument ID: HP6890-25 Calib Start Date: 04/12/2018 15:48

GC Column: RTX-CLPI ID: 0.53(mm) Calib End Date: 04/12/2018 17:07

Lab File ID: 25_07-092.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Toxaphene Peak 1	Lin1		0.0646		0.545	0.500	9.0	20.0
Toxaphene Peak 2	Lin1		0.0451		0.340	0.500	-32.1*	20.0
Toxaphene Peak 3	Lin1		0.0527		0.558	0.500	11.6	20.0
Toxaphene Peak 4	Lin1		0.0517		0.595	0.500	19.0	20.0
Toxaphene Peak 5	Lin1		0.0322		0.479	0.500	-4.2	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Lab Sample ID: CCV 480-411578/5 Calibration Date: 04/30/2018 10:32

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 10:34

GC Column: ZB-5 ID: 0.53(mm) Calib End Date: 04/05/2018 11:05

Lab File ID: 12_015_042.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Ave	0.0433	0.0498		0.575	0.500	14.9	20.0
PCB-1221 Peak 2	Ave	0.0307	0.0385		0.627	0.500	25.5*	20.0
PCB-1221 Peak 3	Ave	0.0731	0.0844		0.577	0.500	15.4	20.0
PCB-1254 Peak 1	Ave	0.0904	0.1083		0.599	0.500	19.8	20.0
PCB-1254 Peak 2	Ave	0.0708	0.0844		0.596	0.500	19.3	20.0
PCB-1254 Peak 3	Ave	0.0745	0.0911		0.612	0.500	22.3*	20.0
PCB-1254 Peak 4	Ave	0.0467	0.0522		0.559	0.500	11.8	20.0
PCB-1254 Peak 5	Ave	0.0636	0.0762		0.599	0.500	19.8	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Lab Sample ID: CCV 480-411578/5 Calibration Date: 04/30/2018 10:32

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 10:34

GC Column: ZB-35 ID: 0.53(mm) Calib End Date: 04/05/2018 11:05

Lab File ID: 12_015_042.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Lin1		0.0232		0.990	0.500	97.9*	20.0
PCB-1221 Peak 2	Ave	0.0108	0.0139		0.643	0.500	28.7*	20.0
PCB-1221 Peak 3	Lin1		0.0412		0.608	0.500	21.6*	20.0
PCB-1254 Peak 1	Ave	0.0493	0.0607		0.616	0.500	23.2*	20.0
PCB-1254 Peak 2	Ave	0.0324	0.0384		0.592	0.500	18.4	20.0
PCB-1254 Peak 3	Ave	0.0806	0.1042		0.646	0.500	29.3*	20.0
PCB-1254 Peak 4	Ave	0.0818	0.1020		0.624	0.500	24.7*	20.0
PCB-1254 Peak 5	Lin1		0.0678		0.599	0.500	19.7	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Lab Sample ID: CCV 480-411578/6 Calibration Date: 04/30/2018 10:48

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 11:35

GC Column: ZB-5 ID: 0.53(mm) Calib End Date: 04/05/2018 12:06

Lab File ID: 12_015_043.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Ave	0.0314	0.0458		0.730	0.500	46.0*	20.0
PCB-1232 Peak 2	Ave	0.0250	0.0360		0.720	0.500	44.0*	20.0
PCB-1232 Peak 3	Lin1		0.0197		0.737	0.500	47.4*	20.0
PCB-1232 Peak 4	Ave	0.0322	0.0404		0.627	0.500	25.5*	20.0
PCB-1232 Peak 5	Ave	0.0158	0.0202		0.639	0.500	27.9*	20.0
PCB-1262 Peak 1	Ave	0.0572	0.0585		0.512	0.500	2.4	20.0
PCB-1262 Peak 2	Lin1		0.0552		0.644	0.500	28.8*	20.0
PCB-1262 Peak 3	Ave	0.0321	0.0413		0.643	0.500	28.7*	20.0
PCB-1262 Peak 4	Ave	0.0400	0.0557		0.696	0.500	39.3*	20.0
PCB-1262 Peak 5	Ave	0.0666	0.0885		0.665	0.500	32.9*	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Lab Sample ID: CCV 480-411578/6 Calibration Date: 04/30/2018 10:48

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 11:35

GC Column: ZB-35 ID: 0.53(mm) Calib End Date: 04/05/2018 12:06

Lab File ID: 12_015_043.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Lin1		0.0376		0.671	0.500	34.1*	20.0
PCB-1232 Peak 2	Ave	0.0276	0.0339		0.614	0.500	22.8*	20.0
PCB-1232 Peak 3	Ave	0.0361	0.0446		0.619	0.500	23.7*	20.0
PCB-1232 Peak 4	Lin1		0.0179		1.23	0.500	145.2*	20.0
PCB-1232 Peak 5	Lin1		0.0135		0.636	0.500	27.1*	20.0
PCB-1262 Peak 1	Ave	0.0612	0.0689		0.562	0.500	12.5	20.0
PCB-1262 Peak 2	Ave	0.0587	0.0674		0.574	0.500	14.7	20.0
PCB-1262 Peak 3	Ave	0.1301	0.1471		0.565	0.500	13.1	20.0
PCB-1262 Peak 4	Ave	0.0444	0.0536		0.604	0.500	20.8*	20.0
PCB-1262 Peak 5	Ave	0.1017	0.1191		0.586	0.500	17.1	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Lab Sample ID: CCV 480-411578/8 Calibration Date: 04/30/2018 11:18

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 13:38

GC Column: ZB-5 ID: 0.53(mm) Calib End Date: 04/05/2018 14:09

Lab File ID: 12_015_045.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Lin1		0.0365		0.393	0.500	-21.4*	20.0
PCB-1248 Peak 2	Ave	0.0489	0.0497		0.508	0.500	1.6	20.0
PCB-1248 Peak 3	Ave	0.0405	0.0411		0.507	0.500	1.5	20.0
PCB-1248 Peak 4	Lin1		0.0192		0.376	0.500	-24.8*	20.0
PCB-1248 Peak 5	Lin1		0.0563		0.567	0.500	13.3	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Lab Sample ID: CCV 480-411578/10 Calibration Date: 04/30/2018 11:34

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 12:37

GC Column: ZB-5 ID: 0.53(mm) Calib End Date: 04/05/2018 13:07

Lab File ID: 12_015_046.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Ave	0.0640	0.0844		0.660	0.500	32.0*	20.0
PCB-1242 Peak 2	Ave	0.0325	0.0446		0.687	0.500	37.4*	20.0
PCB-1242 Peak 3	Ave	0.0362	0.0526		0.727	0.500	45.5*	20.0
PCB-1242 Peak 4	Lin1		0.0598		0.699	0.500	39.8*	20.0
PCB-1242 Peak 5	Lin1		0.0551		0.795	0.500	58.9*	20.0
PCB-1268 Peak 1	Ave	0.1029	0.1643		0.798	0.500	59.6*	20.0
PCB-1268 Peak 2	Ave	0.1830	0.2885		0.788	0.500	57.6*	20.0
PCB-1268 Peak 3	Ave	0.1115	0.1702		0.763	0.500	52.7*	20.0
PCB-1268 Peak 4	Ave	0.0482	0.0973		1.01	0.500	102.1*	20.0
PCB-1268 Peak 5	Ave	0.3921	0.6130		0.782	0.500	56.3*	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1

SDG No.:

Lab Sample ID: CCV 480-411578/10 Calibration Date: 04/30/2018 11:34

Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 12:37

GC Column: ZB-35 ID: 0.53(mm) Calib End Date: 04/05/2018 13:07

Lab File ID: 12_015_046.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Ave	0.0732	0.0870		0.594	0.500	18.9	20.0
PCB-1242 Peak 2	Ave	0.0303	0.0345		0.570	0.500	14.1	20.0
PCB-1242 Peak 3	Ave	0.0398	0.0591		0.743	0.500	48.7*	20.0
PCB-1242 Peak 4	Lin1		0.0437		0.646	0.500	29.2*	20.0
PCB-1242 Peak 5	Ave	0.0295	0.0361		0.612	0.500	22.5*	20.0
PCB-1268 Peak 1	Ave	0.1217	0.1481		0.609	0.500	21.7*	20.0
PCB-1268 Peak 2	Lin1		0.2457		0.729	0.500	45.8*	20.0
PCB-1268 Peak 3	Ave	0.1326	0.1466		0.553	0.500	10.6	20.0
PCB-1268 Peak 4	Ave	0.0582	0.0766		0.658	0.500	31.6*	20.0
PCB-1268 Peak 5	Lin1		0.5779		0.785	0.500	57.1*	20.0

Data Usability Summary Report

Site: Hoosick Falls Landfill
Laboratory: Test America - Buffalo, Amherst, NY
SDGs: 480-137103-1 and 480-137240-1
Parameters: Metals
Data Reviewer: Samir A. Naguib/TRC
Peer Reviewer: Kristen Morin/TRC
Date: July 5, 2018

Sample Reviewed and Evaluation Summary

SDG: 480-137103-1

15 groundwater samples: HFL-MW-1B, HFL-MW-2, HFL-MW-4, HFL-MW-101, HFL-MW-101B, HFL-MW-101C, HFL-MW-102, HFL-MW-103, HFL-MW-104, HFL-MW-104C, HFL-MW-105, HFL-MW-105C, HFL-MW-106, HFL-MW-106C, HFL-PW-1

SDG: 480-137240-1

2 surface water samples: HFL-MH-WS, HFL-WS-114

1 sediment sample: HFL-MH-SD

The above-listed samples were collected on June 5, 6, 7, and 11, 2018 and were analyzed for the following parameter:

- Metals by SW-846 Methods 6010C/7470A/7471B

The data validation was performed in accordance with the following USEPA guidance, modified for the SW-846 methodologies utilized:

- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017

The data were evaluated based on the following parameters:

	•	Overall Evaluation of Data and Potential Usability Issues
*	•	Data Completeness
*	•	Holding Times and Sample Preservation
	•	Initial and Continuing Calibrations
	•	Interference Check Sample (ICS) Results
	•	Blanks
*	•	Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
*	•	ICP Serial Dilution Results
*	•	Laboratory Control Sample (LCS) Results
NA	•	Field Duplicate Results

*	•	Percent Solids
	•	Sample Results and Reported Quantitation Limits (QLs)
*	-	All criteria were met.
NA	-	Field duplicates were not associated with this sample set.

Overall Evaluation of Data and Potential Usability Issues

All results are usable for project objectives. Qualifications applied to the data as a result of sampling error were not required. Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select metals results that were detected between the method detection limit (MDL) and QL. These results were qualified as estimated (J) in the associated samples. These results can be used for project objectives as estimated values, which may have a minor impact on the data usability.

- The positive results for arsenic and nickel in sample HFL-MH-WS were qualified as estimated (J-) with a potential low bias due to negative interference in the ICS analysis. These results can be used for project objectives as estimated values, which may have a minor impact on the data usability.

- The positive results for chromium and lead in sample HFL-MH-WS were qualified as estimated (J+) with a potential high bias due to positive interference in the ICS analysis. These results can be used for project objectives as estimated values, which may have a minor impact on the data usability.

- The nondetect results for antimony, thallium, and cadmium in sample HFL-MH-SD were qualified as estimated (UJ) with a potential low bias due to negative interference in the ICS analyses. These results can be used for project objectives as nondetect results with estimated QLs, which may have a minor impact on the data usability.

- The positive results for lead and vanadium in sample HFL-MH-SD were qualified as estimated (J+) with a potential high bias due to positive interference in the ICS analysis. These results can be used for project objectives as estimated values, which may have a minor impact on the data usability.

Data Completeness

The data package was a complete Level IV data deliverable package.

Holding Times and Sample Preservation

All holding time and sample preservation method criteria were met for the metals analyses.

Initial and Continuing Calibrations

The initial calibration verification (ICV) and/or continuing calibration verification (CCV) percent recoveries (%Rs) met the method acceptance limits for the metals analyses. All initial calibration coefficients (r) were >0.995, as applicable.

The following table summarizes the %Rs that did not meet the method acceptance criteria in the low-level continuing calibration verification (CCVL) standards associated with the sample in this data set.

CCVL ID	Analyte	%R	%R QC Limits	Validation Actions
480-421052/35 06/22/18 @ 02:07	Zinc	132	70-130	No qualification was required due to the high %R since zinc was detected in the associated sample at >10x the QL.
480-421052/47 06/22/18 @ 02:53		135		
Associated sample: HFL-MH-SD				

ICS Results

All analytes recovered within the acceptance limits in the ICSAB sample analyses. Note that sodium and potassium were not spiked into ICSAB analyses; therefore %Rs could not be evaluated in the ICSAB analyses for these analytes. Several analytes were detected as positive and/or negative interference in the ICSA analyses. The interferent, iron, was detected in samples HFL-MH-WS and HFL-MH-SD at a level comparable to the ICSA solution.

The following table lists the concentrations found in the ICSA analyses for analytes that were impacted by the iron interferent and the validation actions.

ICSA ID & Date	Analyte	ICSA Concentration (mg/L)	Validation Actions
480-419823/8 06/14/18 @9:11	Arsenic	-0.0133	The positive results for arsenic and nickel in sample HFL-MH-WS were qualified as estimated (J-) with a potential low bias.
	Nickel	-0.0014	
	Barium	0.0009	No qualifications were required since the positive results for barium and manganese in sample HFL-MH-WS were detected at concentrations greater than 90% of the estimated ICSA interference.
	Manganese	0.002	
	Chromium	0.0012	The positive results for chromium and lead in sample HFL-MH-WS were qualified as estimated (J+) with a potential high bias.
	Lead	0.0083	
	Copper	-0.0016	No qualification was required since the positive result for copper in sample HFL-MH-WS was >10x the absolute value of the negative concentration.
Associated sample: HFL-MH-WS			

ICSA ID & Date	Analyte	ICSA Concentration (mg/L)	Validation Actions
480-421052/8 06/21/18 @08:52	Antimony	-0.0040	The nondetect results for antimony and thallium in sample HFL-MH-SD were qualified as estimated (UJ).
	Thallium	-0.0038	
	Arsenic	-0.0155	No qualification was required since the positive result for arsenic in sample HFL-MH-SD was >10x the absolute value of the negative concentration, after corrected for the sediment preparation factor.
480-421237/8 06/22/18 @10:15	Cadmium	-0.0025	The nondetect result for cadmium in sample HFL-MH-SD was qualified as estimated (UJ).
	Cobalt	-0.0018	No qualification was required since the positive result for cobalt in sample HFL-MH-SD was >10x the absolute value of the negative concentration, after corrected for the sediment preparation factor.
	Lead	0.0050	The positive results for lead and vanadium in sample HFL-MH-SD were qualified as estimated (J+) with a potential high bias.
	Vanadium	0.0039	
	Manganese	-0.0009	No qualification was required since the positive result for manganese in sample HFL-MH-SD was >10x the absolute value of the negative concentration, after corrected for the sediment preparation factor.
Associated sample: HFL-MH-SD			

Blanks

The following table summarizes the blank contaminants, the concentrations detected, and the resulting validation actions.

Preparation Blank ID	Analyte	Blank Concentration	Validation Actions
MB-480-420624/1-A	Calcium	8.11 J mg/Kg	No qualifications were required since the sample results for calcium, cobalt, magnesium, manganese, and iron were greater than the 10x the blank results.
	Cobalt	0.0505 J mg/Kg	
	Magnesium	1.34 J mg/Kg	
	Manganese	0.155 J mg/Kg	
	Iron	10.15 mg/Kg	
Associated sample: HFL-MH-SD			

MS/MSD Results

MS and MSD analyses were performed on sample HFL-MW-106 for all metals. The MS/MSD %Rs and relative percent differences (RPDs) were within the acceptance criteria.

ICP Serial Dilution Results

ICP serial dilution analysis was performed on sample HFL-MW-106 for all metals. The percent differences (%Ds) were within the acceptance limits.

LCS Results

The %Rs for all metals met the laboratory acceptance criteria in the LCSs.

Field Duplicate Results

No field duplicate pairs were submitted with this sample set.

Percent Solids

The percent solids for the sediment sample in this data set, HFL-MH-SD, was >30%; thus, no qualification was required.

Sample Results and Reported Quantitation Limits

Select metal results were reported between the MDL and QL. These results were qualified as estimated (J) in the associated samples by the laboratory. Sample calculations were spot-checked; there were no errors noted.

Silver, cadmium, cobalt, chromium, iron, magnesium, manganese, nickel, lead, and vanadium in sample HFL-MH-SD were analyzed at a 2-fold dilution due to the high concentration of iron. The QLs were adjusted accordingly.

QUALIFIED FORM 1s

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HFL-MH-WS
Lab Sample ID: 480-137240-1
Lab Name: TestAmerica Buffalo
Job No.: 480-137240-1
SDG ID.:
Matrix: Water
Date Sampled: 06/11/2018 13:00
Reporting Basis: WET
Date Received: 06/12/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	6.8	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	0.054	0.015	0.0056	mg/L	J-		1	6010C
7440-39-3	Barium	0.75	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	0.00038	0.0020	0.00030	mg/L	J		1	6010C
7440-43-9	Cadmium	0.0021	0.0020	0.00050	mg/L			1	6010C
7440-70-2	Calcium	93.1	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.0089	0.0040	0.0010	mg/L	J+		1	6010C
7440-48-4	Cobalt	0.0051	0.0040	0.00063	mg/L			1	6010C
7440-50-8	Copper	0.020	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	156	0.050	0.019	mg/L			1	6010C
7439-92-1	Lead	0.026	0.010	0.0030	mg/L	J+		1	6010C
7439-95-4	Magnesium	18.4	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	1.6	0.0030	0.00040	mg/L			1	6010C
7440-02-0	Nickel	0.013	0.010	0.0013	mg/L	J-		1	6010C
7440-09-7	Potassium	6.9	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	43.7	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	0.011	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	0.26	0.010	0.0015	mg/L			1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HFL-WS-114 Lab Sample ID: 480-137240-2

Lab Name: TestAmerica Buffalo Job No.: 480-137240-1

SDG ID.:

Matrix: Water Date Sampled: 06/11/2018 14:00

Reporting Basis: WET Date Received: 06/12/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	0.17	0.20	0.060	mg/L	J		1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	ND	0.015	0.0056	mg/L			1	6010C
7440-39-3	Barium	0.24	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L			1	6010C
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	6010C
7440-70-2	Calcium	103	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	ND	0.0040	0.0010	mg/L			1	6010C
7440-48-4	Cobalt	0.00086	0.0040	0.00063	mg/L	J		1	6010C
7440-50-8	Copper	0.0038	0.010	0.0016	mg/L	J		1	6010C
7439-89-6	Iron	2.5	0.050	0.019	mg/L			1	6010C
7439-92-1	Lead	0.057	0.010	0.0030	mg/L			1	6010C
7439-95-4	Magnesium	27.7	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	2.1	0.0030	0.00040	mg/L			1	6010C
7440-02-0	Nickel	0.0034	0.010	0.0013	mg/L	J		1	6010C
7440-09-7	Potassium	10.7	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	26.5	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	ND	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	0.0030	0.010	0.0015	mg/L	J		1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HFL-MH-SD
Lab Sample ID: 480-137240-3
Lab Name: TestAmerica Buffalo
Job No.: 480-137240-1
SDG ID.:
Matrix: Solid
Date Sampled: 06/11/2018 13:30
Reporting Basis: DRY
Date Received: 06/12/2018 01:00
% Solids: 46.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	11700	22.4	9.9	mg/Kg			1	6010C
7440-36-0	Antimony	~~ND~~	33.6	0.90	mg/Kg	UJ		1	6010C
7440-38-2	Arsenic	8.9	4.5	0.90	mg/Kg			1	6010C
7440-39-3	Barium	301	1.1	0.25	mg/Kg			1	6010C
7440-41-7	Beryllium	0.55	0.45	0.063	mg/Kg			1	6010C
7440-43-9	Cadmium	~~ND~~	0.90	0.13	mg/Kg	UJ		2	6010C
7440-70-2	Calcium	4300	112	7.4	mg/Kg		B	1	6010C
7440-47-3	Chromium	16.1	2.2	0.90	mg/Kg			2	6010C
7440-48-4	Cobalt	11.1	2.2	0.22	mg/Kg		B	2	6010C
7440-50-8	Copper	26.7	2.2	0.47	mg/Kg			1	6010C
7439-89-6	Iron	169000	44.8	15.7	mg/Kg		B	2	6010C
7439-92-1	Lead	35.0	4.5	1.1	mg/Kg	J+		2	6010C
7439-95-4	Magnesium	5560	89.6	4.2	mg/Kg		B	2	6010C
7439-96-5	Manganese	1010	0.90	0.14	mg/Kg		B	2	6010C
7440-02-0	Nickel	26.4	22.4	1.0	mg/Kg			2	6010C
7440-09-7	Potassium	2130	67.2	44.8	mg/Kg			1	6010C
7782-49-2	Selenium	ND	9.0	0.90	mg/Kg			1	6010C
7440-22-4	Silver	ND	2.7	0.90	mg/Kg			2	6010C
7440-23-5	Sodium	89.7	314	29.1	mg/Kg	J		1	6010C
7440-28-0	Thallium	~~ND~~	13.4	0.67	mg/Kg	UJ		1	6010C
7440-62-2	Vanadium	17.9	2.2	0.49	mg/Kg	J+		2	6010C
7440-66-6	Zinc	273	4.5	1.4	mg/Kg		^	1	6010C
7439-97-6	Mercury	0.046	0.041	0.017	mg/Kg			1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HFL-MW-1B
Lab Sample ID: 480-137103-1
Lab Name: TestAmerica Buffalo
Job No.: 480-137103-1
SDG ID.:
Matrix: Water
Date Sampled: 06/06/2018 13:10
Reporting Basis: WET
Date Received: 06/08/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	ND	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	ND	0.015	0.0056	mg/L			1	6010C
7440-39-3	Barium	0.039	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L			1	6010C
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	6010C
7440-70-2	Calcium	86.9	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	ND	0.0040	0.0010	mg/L			1	6010C
7440-48-4	Cobalt	ND	0.0040	0.00063	mg/L			1	6010C
7440-50-8	Copper	ND	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	0.030	0.050	0.019	mg/L	J		1	6010C
7439-92-1	Lead	ND	0.010	0.0030	mg/L			1	6010C
7439-95-4	Magnesium	24.3	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	0.0075	0.0030	0.00040	mg/L			1	6010C
7440-02-0	Nickel	ND	0.010	0.0013	mg/L			1	6010C
7440-09-7	Potassium	0.59	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	7.7	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	ND	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	0.0017	0.010	0.0015	mg/L	J		1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HFL-MW-2 | Lab Sample ID: 480-137103-2

Lab Name: TestAmerica Buffalo | Job No.: 480-137103-1

SDG ID.:

Matrix: Water | Date Sampled: 06/07/2018 10:40

Reporting Basis: WET | Date Received: 06/08/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	ND	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	ND	0.015	0.0056	mg/L			1	6010C
7440-39-3	Barium	0.33	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L			1	6010C
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	6010C
7440-70-2	Calcium	129	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	ND	0.0040	0.0010	mg/L			1	6010C
7440-48-4	Cobalt	ND	0.0040	0.00063	mg/L			1	6010C
7440-50-8	Copper	ND	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	2.0	0.050	0.019	mg/L			1	6010C
7439-92-1	Lead	ND	0.010	0.0030	mg/L			1	6010C
7439-95-4	Magnesium	35.7	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	0.69	0.0030	0.00040	mg/L			1	6010C
7440-02-0	Nickel	ND	0.010	0.0013	mg/L			1	6010C
7440-09-7	Potassium	1.3	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	29.8	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	ND	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	ND	0.010	0.0015	mg/L			1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HFL-MW-4 Lab Sample ID: 480-137103-3

Lab Name: TestAmerica Buffalo Job No.: 480-137103-1

SDG ID.:

Matrix: Water Date Sampled: 06/07/2018 08:40

Reporting Basis: WET Date Received: 06/08/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	0.078	0.20	0.060	mg/L	J		1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	ND	0.015	0.0056	mg/L			1	6010C
7440-39-3	Barium	0.23	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L			1	6010C
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	6010C
7440-70-2	Calcium	153	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	ND	0.0040	0.0010	mg/L			1	6010C
7440-48-4	Cobalt	ND	0.0040	0.00063	mg/L			1	6010C
7440-50-8	Copper	ND	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	1.7	0.050	0.019	mg/L			1	6010C
7439-92-1	Lead	ND	0.010	0.0030	mg/L			1	6010C
7439-95-4	Magnesium	51.3	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	3.2	0.0030	0.00040	mg/L			1	6010C
7440-02-0	Nickel	ND	0.010	0.0013	mg/L			1	6010C
7440-09-7	Potassium	1.9	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	25.7	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	ND	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	0.0028	0.010	0.0015	mg/L	J		1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HFL-MW-101 Lab Sample ID: 480-137103-4

Lab Name: TestAmerica Buffalo Job No.: 480-137103-1

SDG ID.:

Matrix: Water Date Sampled: 06/06/2018 16:10

Reporting Basis: WET Date Received: 06/08/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	ND	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	0.043	0.015	0.0056	mg/L			1	6010C
7440-39-3	Barium	0.76	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L			1	6010C
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	6010C
7440-70-2	Calcium	123	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	ND	0.0040	0.0010	mg/L			1	6010C
7440-48-4	Cobalt	0.00085	0.0040	0.00063	mg/L	J		1	6010C
7440-50-8	Copper	ND	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	11.1	0.050	0.019	mg/L			1	6010C
7439-92-1	Lead	ND	0.010	0.0030	mg/L			1	6010C
7439-95-4	Magnesium	36.4	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	1.5	0.0030	0.00040	mg/L			1	6010C
7440-02-0	Nickel	ND	0.010	0.0013	mg/L			1	6010C
7440-09-7	Potassium	3.3	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	14.7	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	ND	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	ND	0.010	0.0015	mg/L			1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HFL-MW-101B
Lab Sample ID: 480-137103-5
Lab Name: TestAmerica Buffalo
Job No.: 480-137103-1
SDG ID.:
Matrix: Water
Date Sampled: 06/06/2018 17:50
Reporting Basis: WET
Date Received: 06/08/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	3.7	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	0.0077	0.015	0.0056	mg/L	J		1	6010C
7440-39-3	Barium	0.060	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L			1	6010C
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	6010C
7440-70-2	Calcium	48.3	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.0063	0.0040	0.0010	mg/L			1	6010C
7440-48-4	Cobalt	0.0027	0.0040	0.00063	mg/L	J		1	6010C
7440-50-8	Copper	0.0077	0.010	0.0016	mg/L	J		1	6010C
7439-89-6	Iron	4.8	0.050	0.019	mg/L			1	6010C
7439-92-1	Lead	0.0052	0.010	0.0030	mg/L	J		1	6010C
7439-95-4	Magnesium	15.0	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	1.7	0.0030	0.00040	mg/L			1	6010C
7440-02-0	Nickel	0.0047	0.010	0.0013	mg/L	J		1	6010C
7440-09-7	Potassium	2.4	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	15.4	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	0.0057	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	0.015	0.010	0.0015	mg/L			1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HFL-MW-101C
Lab Sample ID: 480-137103-6
Lab Name: TestAmerica Buffalo
Job No.: 480-137103-1
SDG ID.:
Matrix: Water
Date Sampled: 06/06/2018 16:25
Reporting Basis: WET
Date Received: 06/08/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	11.4	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	0.0085	0.015	0.0056	mg/L	J		1	6010C
7440-39-3	Barium	0.17	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	0.00054	0.0020	0.00030	mg/L	J		1	6010C
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	6010C
7440-70-2	Calcium	80.8	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.026	0.0040	0.0010	mg/L			1	6010C
7440-48-4	Cobalt	0.012	0.0040	0.00063	mg/L			1	6010C
7440-50-8	Copper	0.043	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	18.4	0.050	0.019	mg/L			1	6010C
7439-92-1	Lead	0.017	0.010	0.0030	mg/L			1	6010C
7439-95-4	Magnesium	18.8	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	1.7	0.0030	0.00040	mg/L			1	6010C
7440-02-0	Nickel	0.020	0.010	0.0013	mg/L			1	6010C
7440-09-7	Potassium	5.5	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	16.8	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	0.019	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	0.067	0.010	0.0015	mg/L			1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HFL-MW-102 Lab Sample ID: 480-137103-7

Lab Name: TestAmerica Buffalo Job No.: 480-137103-1

SDG ID.:

Matrix: Water Date Sampled: 06/07/2018 08:50

Reporting Basis: WET Date Received: 06/08/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	7.3	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	ND	0.015	0.0056	mg/L			1	6010C
7440-39-3	Barium	0.24	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	0.00056	0.0020	0.00030	mg/L	J		1	6010C
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	6010C
7440-70-2	Calcium	73.8	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.0089	0.0040	0.0010	mg/L			1	6010C
7440-48-4	Cobalt	0.0052	0.0040	0.00063	mg/L			1	6010C
7440-50-8	Copper	0.018	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	10.2	0.050	0.019	mg/L			1	6010C
7439-92-1	Lead	0.0090	0.010	0.0030	mg/L	J		1	6010C
7439-95-4	Magnesium	19.0	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	0.77	0.0030	0.00040	mg/L			1	6010C
7440-02-0	Nickel	0.010	0.010	0.0013	mg/L			1	6010C
7440-09-7	Potassium	4.8	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	21.9	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	0.010	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	0.034	0.010	0.0015	mg/L			1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HFL-MW-103 | Lab Sample ID: 480-137103-8

Lab Name: TestAmerica Buffalo | Job No.: 480-137103-1

SDG ID.:

Matrix: Water | Date Sampled: 06/06/2018 11:30

Reporting Basis: WET | Date Received: 06/08/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	0.86	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	ND	0.015	0.0056	mg/L			1	6010C
7440-39-3	Barium	0.048	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L			1	6010C
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	6010C
7440-70-2	Calcium	97.6	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	ND	0.0040	0.0010	mg/L			1	6010C
7440-48-4	Cobalt	ND	0.0040	0.00063	mg/L			1	6010C
7440-50-8	Copper	ND	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	1.1	0.050	0.019	mg/L			1	6010C
7439-92-1	Lead	ND	0.010	0.0030	mg/L			1	6010C
7439-95-4	Magnesium	26.7	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	0.042	0.0030	0.00040	mg/L			1	6010C
7440-02-0	Nickel	ND	0.010	0.0013	mg/L			1	6010C
7440-09-7	Potassium	1.1	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	85.8	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	ND	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	0.0043	0.010	0.0015	mg/L	J		1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HFL-MW-104 Lab Sample ID: 480-137103-9

Lab Name: TestAmerica Buffalo Job No.: 480-137103-1

SDG ID.:

Matrix: Water Date Sampled: 06/06/2018 09:30

Reporting Basis: WET Date Received: 06/08/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	0.47	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	ND	0.015	0.0056	mg/L			1	6010C
7440-39-3	Barium	0.099	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L			1	6010C
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	6010C
7440-70-2	Calcium	105	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	ND	0.0040	0.0010	mg/L			1	6010C
7440-48-4	Cobalt	ND	0.0040	0.00063	mg/L			1	6010C
7440-50-8	Copper	ND	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	0.56	0.050	0.019	mg/L			1	6010C
7439-92-1	Lead	ND	0.010	0.0030	mg/L			1	6010C
7439-95-4	Magnesium	27.8	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	0.24	0.0030	0.00040	mg/L			1	6010C
7440-02-0	Nickel	ND	0.010	0.0013	mg/L			1	6010C
7440-09-7	Potassium	0.91	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	18.3	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	ND	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	0.0032	0.010	0.0015	mg/L	J		1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HFL-MW-104C
Lab Sample ID: 480-137103-10
Lab Name: TestAmerica Buffalo
Job No.: 480-137103-1
SDG ID.:
Matrix: Water
Date Sampled: 06/06/2018 11:35
Reporting Basis: WET
Date Received: 06/08/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	ND	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	ND	0.015	0.0056	mg/L			1	6010C
7440-39-3	Barium	0.039	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L			1	6010C
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	6010C
7440-70-2	Calcium	83.0	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	ND	0.0040	0.0010	mg/L			1	6010C
7440-48-4	Cobalt	ND	0.0040	0.00063	mg/L			1	6010C
7440-50-8	Copper	ND	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	0.56	0.050	0.019	mg/L			1	6010C
7439-92-1	Lead	ND	0.010	0.0030	mg/L			1	6010C
7439-95-4	Magnesium	30.5	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	1.3	0.0030	0.00040	mg/L			1	6010C
7440-02-0	Nickel	ND	0.010	0.0013	mg/L			1	6010C
7440-09-7	Potassium	1.4	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	19.8	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	ND	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	0.0016	0.010	0.0015	mg/L	J		1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HFL-MW-105 Lab Sample ID: 480-137103-11

Lab Name: TestAmerica Buffalo Job No.: 480-137103-1

SDG ID.:

Matrix: Water Date Sampled: 06/05/2018 15:30

Reporting Basis: WET Date Received: 06/08/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	ND	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	ND	0.015	0.0056	mg/L			1	6010C
7440-39-3	Barium	0.040	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L			1	6010C
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	6010C
7440-70-2	Calcium	76.7	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	ND	0.0040	0.0010	mg/L			1	6010C
7440-48-4	Cobalt	ND	0.0040	0.00063	mg/L			1	6010C
7440-50-8	Copper	ND	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	0.019	0.050	0.019	mg/L	J		1	6010C
7439-92-1	Lead	ND	0.010	0.0030	mg/L			1	6010C
7439-95-4	Magnesium	16.0	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	0.0071	0.0030	0.00040	mg/L			1	6010C
7440-02-0	Nickel	ND	0.010	0.0013	mg/L			1	6010C
7440-09-7	Potassium	1.2	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	18.7	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	ND	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	ND	0.010	0.0015	mg/L			1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HFL-MW-105C
Lab Sample ID: 480-137103-12
Lab Name: TestAmerica Buffalo
Job No.: 480-137103-1
SDG ID.:
Matrix: Water
Date Sampled: 06/05/2018 16:45
Reporting Basis: WET
Date Received: 06/08/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	12.5	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	0.014	0.015	0.0056	mg/L	J		1	6010C
7440-39-3	Barium	0.41	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	0.00097	0.0020	0.00030	mg/L	J		1	6010C
7440-43-9	Cadmium	0.00052	0.0020	0.00050	mg/L	J		1	6010C
7440-70-2	Calcium	70.1	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.069	0.0040	0.0010	mg/L			1	6010C
7440-48-4	Cobalt	0.022	0.0040	0.00063	mg/L			1	6010C
7440-50-8	Copper	0.096	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	30.5	0.050	0.019	mg/L			1	6010C
7439-92-1	Lead	0.034	0.010	0.0030	mg/L			1	6010C
7439-95-4	Magnesium	37.5	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	1.5	0.0030	0.00040	mg/L			1	6010C
7440-02-0	Nickel	0.037	0.010	0.0013	mg/L			1	6010C
7440-09-7	Potassium	19.8	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	98.7	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	0.018	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	0.17	0.010	0.0015	mg/L			1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HFL-MW-106 Lab Sample ID: 480-137103-13

Lab Name: TestAmerica Buffalo Job No.: 480-137103-1

SDG ID.:

Matrix: Water Date Sampled: 06/05/2018 12:10

Reporting Basis: WET Date Received: 06/08/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	0.23	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	ND	0.015	0.0056	mg/L			1	6010C
7440-39-3	Barium	0.022	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L			1	6010C
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	6010C
7440-70-2	Calcium	24.1	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.0022	0.0040	0.0010	mg/L	J		1	6010C
7440-48-4	Cobalt	ND	0.0040	0.00063	mg/L			1	6010C
7440-50-8	Copper	ND	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	0.40	0.050	0.019	mg/L			1	6010C
7439-92-1	Lead	ND	0.010	0.0030	mg/L			1	6010C
7439-95-4	Magnesium	5.4	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	0.054	0.0030	0.00040	mg/L			1	6010C
7440-02-0	Nickel	ND	0.010	0.0013	mg/L			1	6010C
7440-09-7	Potassium	0.80	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	10.6	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	ND	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	0.0017	0.010	0.0015	mg/L	J		1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HFL-MW-106C
Lab Sample ID: 480-137103-14
Lab Name: TestAmerica Buffalo
Job No.: 480-137103-1
SDG ID.:
Matrix: Water
Date Sampled: 06/06/2018 09:40
Reporting Basis: WET
Date Received: 06/08/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	ND	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	ND	0.015	0.0056	mg/L			1	6010C
7440-39-3	Barium	0.20	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L			1	6010C
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	6010C
7440-70-2	Calcium	43.0	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	ND	0.0040	0.0010	mg/L			1	6010C
7440-48-4	Cobalt	ND	0.0040	0.00063	mg/L			1	6010C
7440-50-8	Copper	ND	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	0.74	0.050	0.019	mg/L			1	6010C
7439-92-1	Lead	ND	0.010	0.0030	mg/L			1	6010C
7439-95-4	Magnesium	22.7	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	0.17	0.0030	0.00040	mg/L			1	6010C
7440-02-0	Nickel	ND	0.010	0.0013	mg/L			1	6010C
7440-09-7	Potassium	2.3	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	24.8	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	ND	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	ND	0.010	0.0015	mg/L			1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HFL-PW-1 Lab Sample ID: 480-137103-15

Lab Name: TestAmerica Buffalo Job No.: 480-137103-1

SDG ID.:

Matrix: Water Date Sampled: 06/06/2018 17:15

Reporting Basis: WET Date Received: 06/08/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	ND	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	ND	0.015	0.0056	mg/L			1	6010C
7440-39-3	Barium	0.63	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L			1	6010C
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	6010C
7440-70-2	Calcium	75.9	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	ND	0.0040	0.0010	mg/L			1	6010C
7440-48-4	Cobalt	ND	0.0040	0.00063	mg/L			1	6010C
7440-50-8	Copper	ND	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	35.2	0.050	0.019	mg/L			1	6010C
7439-92-1	Lead	ND	0.010	0.0030	mg/L			1	6010C
7439-95-4	Magnesium	13.6	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	0.83	0.0030	0.00040	mg/L			1	6010C
7440-02-0	Nickel	0.0013	0.010	0.0013	mg/L	J		1	6010C
7440-09-7	Potassium	4.8	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	49.9	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	ND	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	0.0028	0.010	0.0015	mg/L	J		1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

QC NONCONFORMANCE DOCUMENTATION

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-137240-1

SDG No.:

ICV Source: MEI_10_CCVL_00192 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00192

Analyte	CCVL 480-421052/35 06/22/2018 02:07				CCVL 480-421052/47 06/22/2018 02:53							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.162	J	0.200	81	0.168	J	0.200	84				
Antimony	0.0184	J	0.0200	92	0.0178	J	0.0200	89				
Arsenic	0.0118	J	0.0150	78	0.0147	J	0.0150	98				
Barium	0.00204		0.00200	102	0.00209		0.00200	105				
Beryllium	0.00199	J	0.00200	100	0.00198	J	0.00200	99				
Cadmium	0.00192	J	0.00200	96	0.00190	J	0.00200	95				
Calcium	0.505		0.500	101	0.506		0.500	101				
Chromium	0.00389	J	0.00400	97	0.00402		0.00400	101				
Cobalt	0.00405		0.00400	101	0.00407		0.00400	102				
Copper	0.0100		0.0100	100	0.0101		0.0100	101				
Iron	0.0509		0.0500	102	0.0535		0.0500	107				
Lead	0.00950	J	0.0100	95	0.00956	J	0.0100	96				
Magnesium	0.202		0.200	101	0.199	J	0.200	100				
Manganese	0.00335		0.00300	112	0.00330		0.00300	110				
Nickel	0.00997	J	0.0100	100	0.0101		0.0100	101				
Potassium	0.494	J	0.500	99	0.502		0.500	100				
Selenium	0.0236	J	0.0250	94	0.0231	J	0.0250	92				
Silver	0.00581	J	0.00600	97	0.00571	J	0.00600	95				
Sodium	0.976	J	1.00	98	0.975	J	1.00	97				
Thallium	0.0190	J	0.0200	95	0.0191	J	0.0200	95				
Vanadium	0.00520		0.00500	104	0.00490	J	0.00500	98				
Zinc	0.0132		0.0100	132	0.0135		0.0100	135				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-137240-1

SDG No.:

Lab Sample ID: ICSA 480-419823/8 Instrument ID: ICAP1

Lab File ID: I1061418A-8.asc ICS Source: MEI_07_ICSA_00111

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	500	511	102
Antimony		-0.0028	
Arsenic		-0.0133	
Barium		0.0009	
Beryllium		0.0000	
Cadmium		0.0003	
Calcium	500	484	97
Chromium		0.0012	
Cobalt		-0.0002	
Copper		-0.0016	
Iron	200	192	96
Lead		0.0083	
Magnesium	500	515	103
Manganese		0.0020	
Nickel		-0.0014	
Potassium		-0.0532	
Selenium		-0.0036	
Silver		-0.0003	
Sodium		0.0147	
Thallium		-0.0029	
Vanadium		-0.0007	
Zinc		-0.0003	
Boron		*-0.0009*	
Lithium		*0.0051*	
Molybdenum		*0.0011*	
Silicon		*-0.0045*	
Sulfur		*0.102*	
Tin		*-0.0004*	
Titanium		*-0.0005*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-137240-1

SDG No.:

Lab Sample ID: ICSA 480-421052/8 Instrument ID: ICAP1

Lab File ID: i1062118a-12.asc ICS Source: MEI_07_ICSA_00111

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	500	506	101
Antimony		-0.0040	
Arsenic		-0.0155	
Barium		0.0008	
Beryllium		0.0000	
Cadmium		0.0003	
Calcium	500	464	93
Chromium		0.0015	
Cobalt		0.0001	
Copper		-0.0002	
Iron	200	188	94
Lead		-0.0048	
Magnesium	500	518	104
Manganese		0.0009	
Nickel		-0.0006	
Potassium		-0.0244	
Selenium		-0.0033	
Silver		-0.0011	
Sodium		0.0087	
Thallium		-0.0038	
Vanadium		-0.0009	
Zinc		0.0016	
Boron		*-0.0004*	
Lithium		*0.0042*	
Molybdenum		*0.0010*	
Tin		*-0.0021*	
Titanium		*0.0001*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-137240-1

SDG No.:

Lab Sample ID: ICSA 480-421237/8 Instrument ID: ICAP2

Lab File ID: i2062218a-2.asc ICS Source: MEI_07_ICSA_00111

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Cadmium		**-0.0025**	
Chromium		**0.0014**	
Cobalt		**-0.0018**	
Iron	**200**	**189**	**95**
Lead		**0.0050**	
Magnesium	**500**	**513**	**103**
Manganese		**-0.0009**	
Nickel		**-0.0022**	
Silver		**-0.0011**	
Vanadium		**0.0039**	
Aluminum	*500*	*505*	*101*
Antimony		*-0.0106*	
Arsenic		*-0.0047*	
Barium		*0.0009*	
Beryllium		*0.0000*	
Boron		*-0.0047*	
Calcium	*500*	*482*	*96*
Copper		*-0.0014*	
Lithium		*0.0048*	
Molybdenum		*-0.0002*	
Potassium		*-0.0193*	
Selenium		*0.0029*	
Sodium		*0.0118*	
Thallium		*-0.0056*	
Tin		*0.0053*	
Titanium		*-0.0006*	
Zinc		*0.0053*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-137240-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 480-420624/1-A

Instrument Code: ICAP1 Batch No.: 421052

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	ND			6010C
7440-36-0	Antimony	ND			6010C
7440-38-2	Arsenic	ND			6010C
7440-39-3	Barium	ND			6010C
7440-41-7	Beryllium	ND			6010C
7440-43-9	Cadmium	ND			6010C
7440-70-2	Calcium	8.11	J		6010C
7440-47-3	Chromium	ND			6010C
7440-48-4	Cobalt	0.0505	J		6010C
7440-50-8	Copper	ND			6010C
7439-89-6	Iron	10.15			6010C
7439-92-1	Lead	ND			6010C
7439-95-4	Magnesium	1.34	J		6010C
7439-96-5	Manganese	0.155	J		6010C
7440-02-0	Nickel	ND			6010C
7440-09-7	Potassium	ND			6010C
7782-49-2	Selenium	ND			6010C
7440-22-4	Silver	ND			6010C
7440-23-5	Sodium	ND			6010C
7440-28-0	Thallium	ND			6010C
7440-62-2	Vanadium	ND			6010C
7440-66-6	Zinc	ND			6010C