

# **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
<b>Parameters:</b>	Volatile Organic Compounds (VOCs), Semivolatile Organic Compounds (SVOCs),
	Pesticides, Polychlorinated Biphenyl (PCB) Aroclors
Data Reviewer:	Samir A. Naguib/TRC
<b>Peer Reviewer:</b>	Elizabeth Denly/TRC
Date:	April 26, 2018
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## Samples Reviewed and Evaluation Summary

CDC.	480-133590-1
<b>NINT</b> .	480-133390-1

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 2butanone 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 sa	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 s	samples: HFL-SS-104, HFL-SS-10	5, HFL-SS	5-106, H	IFL-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 s - Criteria me				



# **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 <sup>2</sup>	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 samp	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.

-			9/	ώD	
CCV	SV Instrument Compound		Col RTX- CLP-I	Col RTX- CLP-II	Validation Actions
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.
	1	cis-Chlordane	-21.5		

## 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	1 1		9	⁄₀D	
	Compound	Col ZB-5	Col ZB-35	Validation Actions	
04/06/18		PCB-1016 Peak 1		22.3	No qualification required; results
( <i>a</i> ) 08:56	HP6890-7	PCB-1016 Peak 2		20.8	were reported from column ZB-5
@ 08:30	1	PCB-1016 Peak 3	1 - 1	31.2	which had acceptable average %Ds.
		PCB-1016 Peak 4		24.2	
		PCB-1016 Peak 5		26.4	1
		PCB-1260 Peak 1	( == = = )	37.3	1
	0	PCB-1260 Peak 2		32.9	
		PCB-1260 Peak 3		36.4	1
	1.1.1.0	PCB-1260 Peak 4		27.2	
	9	PCB-1260 Peak 5	-	25.0	
04/06/18 @ 09:12		PCB-1221 Peak 3		34.7	
Ŭ		PCB-1254 Peak 2	(	41.6	1.
04/06/18 @,09:44		PCB-1242 Peak 1		27.1	
Ŭ		PCB-1242 Peak 2		25.6	
		PCB-1242 Peak 3		28.8	0-1
		PCB-1242 Peak 4		22.3	
		PCB-1242 Peak 5	( I)	31.1	
Associated	samples: HFL-	SS-104, HFL-SS-105, I	HFL-SS-106, 1	HFL-MW-104	(9-11) - Criteria met
04/17/10	1	PCB-1232 Peak 1	24.8		No qualification was required since the result was nondetect and the %D
04/17/18	HP5890-12	PCB-1232 Peak 2	28.2		on the ZB-35 column was
@ 10:10		PCB-1232 Peak 3	28.9	-	acceptable.
		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	acceptance emeria on bour columns.	
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.

## 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.< td=""></ql.<>			
Associated sam	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
	Tetrachloro-m-xylene		168	60-154	No qualification of the data
HFL-MW-104 (9-11)	Decachlorobiphenyl			65-174	was required due to high %Rs since PCBs were not detected in sample HFL-MW-104 (9-11).

## **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
	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.
HFL-MW-	1,2-Dibromo-3-Chloropropane	61			63-124/30	
105 (22-24)	2-Butanone	66	69	lii	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.

## **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**

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-trifluoroethan e	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	0.2
98-82-8	Isopropylbenzene	ND		3.8	0.58

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- V	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	13

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

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	1	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-trifluoroethan e	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-Methy1-2-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	1.1	4.6	0.38
100-41-4	Ethylbenzene	ND		4.6	0.31
98-82-8	Isopropylbenzene	ND		4.6	0.69

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

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: 2B-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-trifluoroethan	ND		4.8	1.1
79-00-5	1,1,2-Trichloroethane	ND	1999 - Maria Andrea	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	aan oo ahaa ah ahaa ah ahaa ahaa ahaa dhada ahaa ah	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	A - (	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	na nea de mentenna adoitée couquer d	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
124-49-1	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 8260C

04/20/2018

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: 2B-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
108-98-3	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	an ann an chuilte an chuilte the chuile an chuile a	4.9	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	RI	-96	21

CAS NO.	SURROGATE	*REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103	1997 - 1997 - 1997 - 1997 - 1998 - 1998 - 1997 -	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

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-trifluoroethan	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	1111 E. 4000000 (00000000 (0000000000000000000	4.9	0.30
96-12-8	1,2-Dibromo-3-Chloropropane	ND	1977 - Sanda - Grand - Araba - Sanda - Araba - A	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	unal fan tak te rik er dynikal sjók sin r	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	K 200 LOID VK PAYSIN 11.074	4.9	0.66
75-25-2	Bromoform	ND	40000000000000000000000000000000000000	4.9	2.1
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	ndarfuathrisiuna-ta-abilitika 444444	4.9	0.46
108-90-7	Chlorobenzene	ND		4.9	0.6
75-00-3	Chloroethane	ND	er (product) daer and an and an and an	4.9	1.1
67-66-3	Chloroform	ND	******	4.9	0.3
74-87-3	Chloromethane	ND	napiser 7 & "artificites signation dis 100% provi-	4.9	0.30
156-59-2	cis-1,2-Dichloroethene	ND	NANANANANANANANANANANANANANANANANANA	4.9	0.6
10061-01-5	cis-1,3-Dichloropropene	ND		4.9	0.7
110-82-7	Cyclohexane	ND	ndaraðarar 1976 ga sa Yoshind heilingur sam	4.9	0.6
124-48-1	Dibromochloromethane	ND	- 11 and - 1	4.9	0.6:
75-71-8	Dichlorodifluoromethane	ND	****	4.9	0.4
100-41-4	Ethylbenzene	ND		4.9	0.3
98-82-8	Isopropylbenzene	ND	left var vallt alleft all a "genig finderaatsplaansandee	4.9	0.7

04/20/2018

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	<b>A</b> 5	XEL	4.9	2.3
100-42-5	Styrene	ND	11	4.9	0.25
127-18-4	Tetrachloroethene	ND		4.9	0.66
108-88-3	Toluene	ND	e de deserve en la contrata contrata contrata de la	4.9	0.37
156-60-5	trans-1,2-Dichloroethene	ND	n and sy keep on a face-ration herecologies	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	Antiper Antiper antiper	9.9	0.83
123-91-1	1,4-Dioxane	ND 1	KJ	59	22

CAS NO.	SURROGATE	8REC	0	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	nan dan sa kara da ya wasa	60-140
2037-26-5	Toluene-d8 (Surr)	102		71-125

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 Aliquet Vol:	Dilution Factor: 1			
Soil Extract Vol.:	GC Column: 2B-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	VIUJ	4.7	0.76
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethan e	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-Dichlorcethene	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	NUT!	4.7	2.3
106-93-4	1,2-Dibromoethane	ND	A CONTRACT OF A DATA AND A DATA	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	en oak vie is stati frankraussistete	4.7	2.3
541-73-1	1,3-Dichlorobenzene	ND		4.7	0.24
106-46-7	1,4-Dichlorobenzene	ND	an ad the second spectrum is which is initial	4.7	0.66
78-93-3	2-Butanone (MEK)	NP	R4J	23	1.7
591-78-6	2-Hexanone	ND		23	2.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	an anna a ta stainn a chuiseann ail sann	23	1.5
67-64-1	Acetone	ND		23	3,9
71-43-2	Benzene	ND	1998 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	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	1	4.7	2.3
56-23-5	Carbon tetrachloride	ND		4.7	0.45
108-90-7	Chlorobenzene	ND	3 - 100 particular di 10 p	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	0.26
156-59-2	cis-1,2-Dichloroethene	ND	ter (article and a state of the	4.7	0.60
10061-01-5	cis-1, 3-Dichloropropene	ND		4.7	0.6
110-82-7	Cyclohexane	ND		4.7	0.6
124-48-1	Dibromochloromethane	ND	12 Mar 19 19 19 19 19 19 19 19 19 19 19 19 19	4.7	0.60
75-71-8	Dichlorodifluoromethane	ND		4.7	0.3
100-41-4	Ethylbenzene	ND	5588 <mark>9</mark> 5566.55 <u>66666</u> 899999999999999999999999999999999	4.7	0.3
98-82-8	Isopropylbenzene	ND	**** v 3.49.4 2 ****** ******************	4.7	0.7

04/25/2018

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	Ner ter all ver på som å har alle vara har for a	4.7	0.71
75-09-2	Methylene Chloride	ND	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	4.7	2.2
100-42-5	Styrene	ND	analah san kanya penangkana pa	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	14 4 18 14 18 14 14 14 14 14 14 14 14 14 14 14 14 14	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	ER ]	.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



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

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 1D: 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

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 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	10.00	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	1	1100	150
120-12-7	Anthracene	ND		1100	260
1912-24-9	Atrazine	ND		1100	371
100-52-7	Benzaldehyde	ND		1100	850
56-55-3	Benzo[a]anthracene	ND		1100	11
50-32-8	Benzo[a]pyrene	ND		1100	16
205-99-2	Benzo[b]fluoranthene	ND		1100	17

Lab Name: TestAmerica Buffalo	Job No.: 480-133590-1
SDG No.:	
Client Sample ID: HFL-SS-106	Lab Sample ID: <u>480-133590-2</u>
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

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	1000 2000 B 10 E	960	110
91-58-7	2-Chloronaphthalene	ND		960	160
95-57-8	2-Chlorophenol	ND	1111111111	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	1.11	1900	1100
99-09-2	3-Nitroaniline	ND	AP 1034333 A 10440 APRA 19 10444	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	n gine sean a's drar an ar ar an an an an	960	130
120-12-7	Anthracene	ND	a manada asaanna amanamaan	960	240
1912-24-9	Atrazine	ND	and you and all water on the set of the set of the	960	330
100-52-7	Benzaldehyde	ND		960	760
56-55-3	Benzo(a)anthracene	180	J	960	9(
50-32-8	Benzo[a]pyrene	ND	**************************************	960	14(
205-99-2	Benzo[b]fluoranthene	250	J	960	150

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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	tint to - balance when the	960	120
117-81-7	Bis(2-ethylhexyl) phthalate	ND		960	330
85-68-7	Butyl benzyl phthalate	ND	re ex savet his in it was shown as to	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	100. p. 5100 Print & P. M. 4.100/1	960	120
131-11-3	Dimethyl phthalate	ND	. Alana ili va alabera di sa fadi a Angele de de	960	110
206-44-0	Fluoranthene	400	Ĵ	960	100
86-73-7	Fluorene	ND		960	110
118-74-1	Hexachlorobenzene	ND	11	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

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
120-93-2	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	ALL-0 10.1. AVI 10.00 ALL-0.4.4	470	35
88-75-5	2-Nitrophenol	ND		240	6B
91-94-1	3,3'-Dichlorobenzidine	ND	- 10 A	470	280
99-09-2	3-Nitroaniline	ND	norder a fra troc de la constante, redati	470	66
534-52-1	4,6-Dinitro-2-methylphenol	ND	1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	470	240
101-55-3	4-Bromophenyl phenyl ether	ND	1. 9997 (T 3 Gr. 10) Gr. 11 (Gr. 10) (Gr. 10)	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	uv4u0///////////////////////////////////	470	130
100-02-7	4-Nitrophenol	ND	a nuclei bio	470	170
83-32-9	Acenaphthene	ND	in the second	240	35
208-96-8	Acenaphthylene	ND		240	31
98-86-2	Acetophenone	ND	1219501	240	32
120-12-7	Anthracene	ND	9779949 H 1 4 2 4 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	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	a hang da nangang na nangang na nangang nangang nangang na nangang na nangang na nangang na nangang na nangang	240	3!
205-99-2	Benzo(b)fluoranthene	ND		240	38

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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	int a die Flagt of all officially dependent of the ballout	240	31
117-81-7	Bis(2-ethylhexyl) phthalate	ND		240	82
85-68-7	Butyl benzyl phthalate	ND	1. 11. 12. 12	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	- 1.500	240	41
117-84-0	Di-n-octyl phthalate	ND	e inch	240	28
132-64-9	Dibenzofuran	ND	South the state	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	0.000	240	41
86-30-6	N-Nitrosodiphenylamine	ND	10.09	240	190
91-20-3	Naphthalene	ND	Cont Server	240	31
98-95-3	Nitrobenzene	ND		240	27
87-86-5	Pentachlorophenol	ND	11-30	470	240
85-01-8	Phenanthrene	ND		240	35
108-95-2	Phenol	ND		240	37
129-00-0	Pyrene	ND		240	28

Job No.: 480-134080-1
Lab Sample ID: 480-134080-1
Lab File ID: X210612.D
Date Collected: 04/11/2018 16:45
Date Extracted: 04/14/2018 06:42
Date Analyzed: 04/16/2018 20:06
Dilution Factor: 1
Level: (low/med) Low
GPC Cleanup:(Y/N) N
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	UTJ	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	1-240 Diah [1]	210	35
95-57-8	2-Chlorophenol	. ND	14-11-19 18	210	38
95-48-7	2-Methylphenol	ND	Level and C 2	210	25
91-57-6	2-Methylnaphthalene	ND		210	42
88-74-4	2-Nitroaniline	ND	1.1262.557.51	410	31
88-75-5	2-Nitrophenol	ND	15.000 AU	210	59
91-94-1	3,3'-Dichlorobenzidine	ND	VILLES SAIVE	410	250
99-09-2	3-Nitroaniline	ND		410	58
534-52-1	4,6-Dinitro-2-methylphenol	ND	Soros in 1	410	210
101-55-3	4-Bromophenyl phenyl ether	ND	CONTRACTOR OF	210	30
59-50-7	4-Chloro-3-methylphenol	ND	1 1 1 1 1 1	210	52
106-47-8	4-Chloroaniline	ND	Date for the	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	20.000.00	410	110
100-02-7	4-Nitrophenol	ND	A CONTRACTOR OF	410	150
83-32-9	Acenaphthene	ND		210	31
208-96-8	Acenaphthylene	ND		210	27
98-86-2	Acetophenone	ND	1.720	210	28
120-12-7	Anthracene	ND		210	52
1912-24-9	Atrazine	ND		210	73
100-52-7	Benzaldehyde	ND	an bi al shaan gadeni da lavendrah an ar	210	170
56-55-3	Benzo(a)anthracene	ND	ter and ensure de land and the life any paper of the other per-	210	21
50-32-8	Benzo [a] pyrene	ND	a ar a think and the second states are not	210	31
205-99-2	Benzo[b]fluoranthene	ND		210	33

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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		21.0	22
207-08-9	Benzo(k)fluoranthene	ND		210	27
111-91-1	Bis(2-chloroethoxy)methane	ND	1	210	45
111-44-4	Bis(2-chloroethy1)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	dia Ste	210	37
84-74-2	Di-n-butyl phthalate	ND		210	36
117-84-0	Di-n-octyl phthalate	ND	10.0046	210	25
132-64-9	Dibenzofuran	ND	Technes	210	25
84-66-2	Diethyl phthalate	ND		210	27
131-11-3	Dimethyl phthalate	· ND	MAN -9.000000000000000000000000000000000000	210	25
206-44-0	Fluoranthene	ND	ELCHERT - CONTRACTORY BUILDING	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	ana ya yaigaya ya na kata kata	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	and the second	210	27
98-95-3	Nitrobenzene	ND		210	24
87-86-5	Pentachlorophenol	ND	121	410	210
85-01-8	Phenanthrene	ND	11111111111111111111111111111111111111	210	31
108-95-2	Phenol	ND		210	32
129-00-0	Pyrene	ND		210	25



Job No.: 480-133590-1		
Lab Sample ID: 480-133590-1		
Lab File ID: 25_06-095.D		
Date Collected: 04/04/2018 08:15		
Date Extracted: 04/05/2018 06:45		
Date Analyzed: 04/05/2018 22:19		
Dilution Factor: 1		
GC Column: RTX-CLPII ID: 0.53(mm)		
GPC Cleanup:(Y/N) N		
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

Lab Name: TestAmerica Buffalo	Job No.: 480-133590-1			
SDG No.:				
Client Sample ID: HFL-SS-106	Lab Sample ID: <u>480-133590-2</u>			
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	1	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

Lab Name: Te	stAmerica Buffalo	Job	No.: 480-13	3590-1	1 20-10-102 - 102 - 102 - 102 - 102 - 102 - 102 - 102 - 102 - 102 - 102 - 102 - 102 - 102 - 102 - 102 - 102		
SDG No.:							
Client Sampl	ient Sample ID: HFL-SS-105 trix: Solid alysis Method: 8081B traction Method: 3550C mple wt/vol: 30.40(g) n. Extract Vol.: 10(mL)	Lab	Sample ID:	480-133	590-3		
Matrix: Soli	d	Lab File ID: 25_06-096.D Date Collected: 04/04/2018 08:45 Date Extracted: 04/05/2018 06:45					
Analysis Met	hod: 8081B						
Extraction M	ethod: 3550C						
Sample wt/vo	1: 30.40(g)	Date Analyzed: 04/05/2018 22:39					
Con. Extract	Vol.: 10(mL)	Dilution Factor: 1					
njection Volume: 1(uL)		GC Column: RTX-CLPII ID: 0.53(mm)					
% Moisture:	13.3	GPC Cleanup: (Y/N) N					
Analysis Bat	ch 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	lanara di komini sin ya da na mahara Ada Bro	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	1999-1999 1999 1999 1999 1999 1999 1999	ND		1.9	0.95	

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	1.448, 800 MINU ANEAMAY, 60000093434	30-124

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	2	RL	MDL
72-54-8	4,4'-DDD	ND	T	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	hereastaries a second	2.4	1.2
319-85-7	beta-BHC	ND	4449, 2214, 92, 92, 92, 92, 92, 92, 92, 92, 92, 92	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	1	2.4	0.45
33213-65-9	Endosulfan II	ND		2.4	0.42
1031-07-8	Endosulfan sulfate	ND	19779281 N 160 II ON 197 18719 1871	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	144 A 844 844 844 844 844 844 844 844	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	49449449444444444444444444444444444444	45-120
877-09-8	Tetrachloro-m-xylene	70	agriget singhog laftening a Statigety gab sold	30-124

FORM I PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Te	stAmerica Buffalo	ca Buffalo Job No.: 480-134080-1						
SDG No.:								
Client Sampl	e ID: HFL-MW-105(22-24)	Lab	Sample ID:	480-134	080-1			
Matrix: Soli	d	Lab File ID: 25_06-300.D Date Collected: 04/11/2018 16:45						
Analysis Met	hod: 8081B							
Extraction M	Extraction Method: 3550C Sample wt/vol: 30.61(g) Con. Extract Vol.: 10(mL)		Date Extracted: 04/13/2018 15:08					
Sample wt/vc			Date Analyzed: 04/17/2018 12:58 Dilution Factor: 1					
Con. Extract								
Injection Vo	plume: 1(uL)	GC Column: RTX-CLPI ID: 0.53(mm)						
% Moisture:	20.7	GPC Cleanup: (Y/N) N						
Analysis Bat	ch No.: 409191	Uni	ts: ug/Kg	4- 4- 4- 1145500-	• • October ( Manifest ( 1999)	1.46m (c. do the star spectra		
CAS NO.	COMPOUND NAME	*** <b> </b>	RESULT	Q	RL	MDL		
72-54-8	4,4'-DDD		ND		2.1	0.40		
72-55-9	4,4'-DDE	e defensionen et seren et al seren et	ND		2.1	0.43		

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


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

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

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	1, a ( + 1 ) a - ( + ) an ann an an an an an	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

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	T.	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

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)
<pre>% Moisture: 20.7</pre>	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	1. 7. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	0.25	0.049
11141-16-5	PCB-1232	ND		0.25	0.049
53469-21-9	PCB-1242	ND	***** waxaana waxaanaa wa	0.25	0.049
12672-29-6	PCB-1248	ND		0.25	0.049
11097-69-1	PCB-1254	ND	g og graddau is blig dwraeg canw da	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	4	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 Buffa	Ισ		JOD N	0.: 480	1-13322	1-0-1	_			-	Analy B	acui	Ter		1131		
SDG No.:														-	-		
Instrument ID: HP5973F			GC Co	lumn: 2	ZB-624	(30) I	D: 0	.25(mm)		Heated Purge: (Y/N) Y							
Calibration Start Date: 03/	16/2018 16	:48	Calib	Calibration End Date: 03/16/2018 19:22					Calibration ID: 33147								
ANALYTE			RRF	RRF		CORVE		COEFFICI	ENT	#	MIN RRF	*RSD	ŧ	MAX &RSD	R^2 OR COL		MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	TAT 3	LVL 4	LVL 5		В	Ml	M2								
Carbon tetrachloride	1.5961	1.6423			1.6600			1.6757			0.1000			20.0			
Isobutyl alcohol	0.0765	0.0715	0.0724		0.0820			0.0759				6.0		20.0			
Benzehe	5.8590 5.3915	4.8315	5.9867		5.4308			5.5906			0.5000			20.0			
1,2-Dichloroethane	1.8414	1.9093 1.7130			1.8579			1.9218			0.1000	6.7	-	20.0			
n-Heptane	2.5795	2.7767 2.3273			2.5736			2.7006		-	0.2000		-	20.0		$\square$	<u> </u>
Trichloroethene	1.4668	1.3367	1.5365		1.4101			1.4568			0.1000			20.0			
Methylcyclohexane	2.5504	2.6175 2.3694						2.6354			0.1000			20.0			
1,2-Dichloropropane	1.3951 1.3318	1.2657		1.4326		1 1		0.0076			- 0.1000	6.1		20.0			<u> </u>
1,4-Dioxane	0.0073	0.0070		0.0082			C	0.8375	>		0.1000			20.0			<u> </u>
Dibromomethane	0.8297	0.8023			0.8428			1.6600		-	0.2000		- COLOR	20.0			
Bromodichloromethane	1.5430 1.7536	1.6844		1.7463				0,8591			0.2000	5.4		20.0			
2-Chloroethyl vinyl ether	0.7847	0.8641	2.1500	0.9109	2.1424			2.1038			0,2000		-	20.0			
cis-1,3-Dichloropropene	2.0608	2.0508		0.8448				0,7365			0.1000			20.0			
4-Methyl-2-pentanone (NIBK)	0.7042 0.6980	0.5983		1.9096			_	1.7854			0.4000			20.0			
Toluene	1.9433	1.5630	0.9244		0.9461			0.9165		-	0.1000			20.0			
trans-1,3-Dichloropropene	0.8604	0.9177		0.9765			-	0.8879				4.2		20.0		+	
Ethyl methacrylate	0.8554 0.9029 0.4950	0.8673	0.5134		0.4896			0.4961		+	0.1000			20.0		+	
1,1,2-Trichloroethane	0.4950	0.4702		0.8420				0.7698		-	0.2000		-	20.0		-	
Tetrachloroethene	0.7472							1.0104		+		4.5		20.0		_	
1,3-Dichloropropane	0.9912	0.9356	1.0433	1.0/51	110003												

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

FORM VI 8260C

04/20/2018

## FORM VII GC/MS VOA CONTINUING CALIBRATION DATA

ab Name: TestAmerica Buf	Iato	an and in an and a second s	JOD NO.	: 490-1335	90-1	A		yana ana arristantari.e
DG No.:	100000		0.11		01/05/0		•	
ab Sample ID: CCVIS 480-	407281/	5 		tion Date:		*****		64.4456556 (*********************************
nstrument ID: HP5973F			_ Calib S	Start Date:	03/16/2	018 16:4	8	
C Column: ZB-624 (30) VC	A I	D: 0.25(mm)	Calib H	Ind Date: 0	3/16/201	8 19:22		
ab File ID: F1490.D			Conc. (	Jnits: ug/L	H	eated Pur	ge: (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	1.940	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.
Tetrachloroethene	Ave	0.7698	0.8162	0.2000	53.0	50.0	6.0	20.0
1,3-Dichloropropane	Ave	1.010	1.066	012000	52.8	50.0	5.5	20.
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.
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.
1,1,1,2-Tetrachloroethane	Ave	0.5916	0.5929		50.1	50.0	0.2	20.
m, p-Xylene	Ave	1.299	1.367	0.1000	52.6	50.0	5.2	20.
o-Xylene	Ave	1.231	1.290	0.3000	52.4	50,0	4.8	20.
Styrene	Ave	2.191	2.273	0.3000	51.9	50.0	3.7	20.
Bromoform	Ave	0.3805	0.3790	0.1000	49.8	50.0	-0.4	50.
Isopropylbenzene	Ave	3.015	3,155	0.1000	52.3	50.0	4.6	20.
1,1,2,2-Tetrachloroethane	Ave	0.7587	0.8258	0,3000	54.4	50.0	8.9	20.
Bromobenzene	Ave	0.9441	0.8635	010000	51,1	50.0	2.3	20.
N-Propylbenzene	Ave	3.531	3.697		52.3	50.0	4.7	20.
trans-1, 4-Dichloro-2-butene	Ave	0.2598	0.2661		51.2	50.0	2.4	50.
1,2,3-Trichloropropane	Ave	0.2562	0.2716	1967-1979-1981-1977-1977-1977-1977-1977-197	53.0	50.0	6.0	20.
2-Chlorotoluene	Ave	0.7657	0.7842		51.2	50.0	2.4	20.
1,3,5-Trimethylbenzene	Ave	2.573	2.689		52.2	50.0	4.5	20.
4-Chlorotoluene	Ave	0.8144	0.8408		51.6	50.0	3.2	20.
tert-Butylbenzene	Ave	0.5922	0.6115		51.6	50.0	3.3	20.
1,2,4-Trimethylbenzene	Ave	2,642	2.760		52.2	A second s	4.4	20.
sec-Butylbenzene	Ave	3.246	3.419		52.7	50.0	5.3	20.
4-Isopropyltoluene	λνο	2,832	2.986		52.7	50.0	5.4	20.
1,3-Dichlorobenzene	Ave	1,593	1.632	0.6000	51.2	and the second se	2.4	20.
1,4-Dichlorobenzene	Ave	1.625	1.684	0.5000	and a local second second second	and the second state of the second state	3.6	20.
n-Butylbenzene	Ave	2.505	2,646	010000	52.8		5.6	20.
1,2-Dichlorobenzene	Ave	1.487	1.514	0.4000	and the second s	and the second se	1.8	20.

FORM VII 8260C

04/20/2018

#### FORM VII GC/MS VOA CONTINUING CALIBRATION DATA

Job No.: 480-134080-1 Lab Name: TestAmerica Buffalo SDG No .: Calibration Date: 04/13/2018 10:00 Lab Sample ID: CCVIS 480-408660/3 Instrument ID: HP5973F Calib Start Date: 03/16/2018 16:48 Calib End Date: 03/16/2018 19:22 GC Column: ZB-624 (30) VOA ID: 0.25(mm) Conc. Units: ug/L Heated Purge: (Y/N) Y Lab File ID: F1696.D MAX CURVE MIN RRF CALC SPIKE 8D AVE RRF RRF ANALYTE AMOUNT AMOUNT &D TYPE 51.0 50.0 2.0 20.0 0.1000 2.635 2.687 Methylcyclohexane Ave 20.0 0.1000 50.9 50.0 1.7 1.344 1.367 1,2-Dichloropropane Ave 50.0 0.0084 1110 1000 10.6 0.0076 1,4-Dioxane Ave 5.2 20.0 52.6 50.0 0.8375 0.8812 0.1000 Dibromomethane Ave 20.0 3.7 50.0 1.660 1.721 0.2000 51.0 Bromodichloromethane Ave 20.0 49.9 50.0 -0.1 0.8591 0.8579 2-Chloroethyl vinyl ether Ave 50.0 -0.8 20.0 0.2000 49.6 2.086 cis-1,3-Dichloropropene Ave 2,104 256 250 2.2 20.0 0.1000 0.7365 0.7528 4-Methyl-2-pentanone (MIBK) Ave 1.1 20.0 50.0 50.6 1.785 1.806 0.4000 Toluene Ave 20.0 50.0 -1.2 0.9055 0.1000 49.4 Ave 0.9165 trans-1, 3-Dichloropropene 20.0 49.4 50.0 -1.2 0.8879 0.8771 Ethyl methacrylate Ave 20.0 50.7 50.0 1.4 0.5029 0.1000 0.4961 1,1,2-Trichloroethane Ave 52.4 4.8 20.0 50.0 0.8069 0,2000 0.7698 Tetrachloroethene Ave 20.0 50.0 2.6 1.036 51.3 Ave 1.010 1,3-Dichloropropane 20.0 0.1000 259 250 3.5 0.5687 0.5885 Ave 2-Hexanone 50.0 7.3 20.0 0.6290 0.1000 53.6 0.5864 Dibromochloromethane Ave 0.6492 52.0 50.0 4.0 20.0 0.6239 1,2-Dibromoethane Ave 20.0 1,995 0.5000 51.6 50.0 3.2 1,932 Chlorobenzene Ave 20.0 0.1000 51.8 50.0 3.5 3.147 3.257 Ethylbenzene Ave 20.0 0.5906 49.9 50.0 -0.2 1,1,1,2-Tetrachloroethane 0.5916 Ave 1.329 0.1000 51.1 50.0 2.3 20.0 1.299 m,p-Xylene Ave 1.263 20.0 0.3000 51.3 50.0 2.7 o-Xylene Ave 1,231 50.0 1.7 20.0 2.229 0.3000 50.9 Styrene Ave 2.191 50.0 2.0 Bromoform Ave 0.3805 0.3883 0.1000 51.0 50.0 20.0 Ava 3.015 3.054 0.1000 50.6 50.0 1.3 Isopropylbenzene 0.3000 50.0 3.2 20.0 1,1,2,2-Tetrachloroethane 0.7587 0.7830 51.6 Ave 50.0 0.7 20.0 Ave 0.8441 0.8500 50.3 Bromobenzene 2.3 20.0 50.0 N-Propylbenzene AVA 3.531 3,612 51.1 50.0 50.0 -3.3 trans-1, 4-Dichloro-2-butene Ave 0.2598 0.2512 48.3 20.0 0.2562 0.2560 50.0 50.0 -0.0 1,2,3-Trichloropropane Ave -0.2 20.0 0.7641 49.9 50.0 2-Chlorotoluene Ave 0.7657 20.0 50.0 0.6 2.588 50.3 1,3,5-Trimethylbenzene Ave 2,573 20.0 50.6 50.0 1.2 0.8144 0.8238 4-Chlorotoluene Ave 20.0 0.6016 50.8 50.0 1.6 Ave 0.5922 tert-Butylbenzene 2.642 2,668 50.5 50.0 1.0 20.0 1,2,4-Trimethylbenzene Ave 20.0 3.292 50.7 50.0 1.4 3.246 sec-Butylbenzene Ave 50.0 1.6 20.0 2.077 50.8 2.832 4-Isopropyltoluene Ave 20.0 0.6000 50.6 50.0 1.3 1.593 1.614 Ave 1,3-Dichlorobenzene 20.0 1.634 0.5000 50.3 50.0 0.6 1.625 Ave 1,4-Dichlorobenzene 51.3 50.0 2.7 20.0 2.505 2.572 Ave n-Butylbenzene 0.4000 49.8 50.0 -0.3 20.0 1.487 1.483 1,2-Dichlorobenzene Ave

FORM VII 8260C

04/25/2018

#### 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		COEFFICIE	NT	1 #	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	TYPE	B	M1	M2				*KSD	OK COD		UK COD
Diethyl phthalate	1.4311	1.5067	1.5176	1.6454	1.6361	Ave		1.5772			0.0100	5.8	20.0	1	1	
Diethyl phinalace	1.6283	1,6753								E LINE						
Rexadecape	1.1441	1.1564	1.1904	1.2438	1.2385	Ave		1.2046		-	0.0100	3.4	20.0			
	1.2357	1.2230											-			
4-Chlorophenyl phenyl ether	0.7716	0.8325	0.8291	0.8645	0.8739	Ave		0.8455			0.4000	4.7	20.0			
	0.8538	0.8934	No.							1				1		
4-Nitroaniline	0.2732	0.3131	0.3608	0.3929	0.4053	Ave	and the second se	0.3641		and and	0.0100	14.4	20.0			
	0.3919	0.4113									0.0000	2.6	20.0			
Fluorene	1,4794		1.4904	1.5930	1.5632	Ave		1.5544			0.9000	3.6	20.0			
Particular and a second second second	1.6022	1.6204								1				0.0000		0.9900
4,6-Dinitro-2-methylphenol	0.0540		0.1191	0.1461	0.1485	Lin2	-0.527	0.1531			0.0100	8.7		0.9920		0.9900
	0,1612	0.1666									0.0100	1.0	20.0		_	
Diphenylamine	0.5886		0.6156	0.6250	0.6417	Ave		0.6377			0.0100	4.8	20.0	-		
	0.6655	0.6779						0.000		1	0.0100	4.8	20.0		-	
N-Nitrosodiphenylamine	0.5032	0.5556		0.5344				0.5453			0.0100					
1,2-Diphenylhydrazine	0.7568	0.8349	0.8232	0.8207	0.8530			0.8307			0.0100	4.5	20.0			
trans-Azobenzene	0.7568	0.8349	0.8232	0.8207	0.8530	Ave		0.8307			0.0100	4.5	20.0			
4-Bromophenyl phenyl ether	0.2105	0.2397	0.2610	0.2593	0.2620	Lin2	-0.147	0.2690			0.1000			0.9990		0.9900
Hexachlorobenzene	0.2568	0.2566	0.2478	0.2619	0.2663	Ave		0.2631			0.1000	4.1	20.0	1		
Atrazine	0.3833	0.4433	0.4430	0.4821	0.4718			0.4652			0.0100			0.9990		0.9900
Pentachlorophenol	+++++	0.0174	0.0788	0.1298	0.1483	Lin2		0.1575			0.0500			0.9700	5	0.9900
n-Octadecane	0.5130	0.5661	0.5685	0.5875	0.6081	Lin2	-0.231	0.6056			0.0100			0.9990		0.9900
Phenanthrene	1.0507		1.0939	1.1085	1.1088	Ave		1.1094			0.7000	3.6	20.0			
	1.1481					-				1				1		
Anthracene	1.0589		1.1266	1.1571	1.1829	Ave		1.1512			0.7000	4.8	20.0	and the second se		
Carbazole	0.8851		0.9845	1.0208	1.0296	Lin2	-0.375	1.0399			0.0100	2.3		0.9990		0.9900
	1.0479	1.0663								1	0.0100	2.5		0.0000		0 0000
Di-n-butyl phthalate	1.0997		1.2102	1.2882	1.2528	Lin2	-0.502	1.2974			0.0100	3.5		0.9990		0.9900
	1.3150				1 0005		0 477	1 2446		-	0.6000	3.7		0.9980		0.9900
Fluoranthene	1.1616	1.2543	1.2296	1.3323	1.3355	L1n2	-0.477	1.3446			0.0000	3./		0.3960		0.9900

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

FORM VI 8270D

#### 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 Calib Start Date: 04/09/2018 16:24 Instrument ID: HP5973X Calib End Date: 04/09/2018 19:04 GC Column: RXI-5S11 MS ID: 0.25(mm) Conc. Units: ug/L Lab File ID: X210604.D MIN RRF CURVE CALC SPIKE &D MAX AVE RRF RRF ANALYTE AMOUNT 8D TYPE AMOUNT 45900 50000 -8.3 20.0 Lin2 0.4990 0.0100 1,4-Dioxane 1.389 0.0100 64900 50000 29.8 50.0 N-Nitrosodimethylamine Lin2 0.0100 119000 100000 18.8 50.0 Pyridine Ave 1.405 1,669 50.0 0.996 0.8379 0.0100 42000 50000 -15.9 Benzaldehyde Ave 1.627 1.475 0.8000 45300 50000 -9.3 20.0 Ava Phenol 1.785 0.0100 47000 50000 -6.0 20.0 1.900 Aniline Ave 1.076 44300 50000 -11.5 20.0 1.215 0.7000 Bis(2-chloroethyl)ether Ave 20.0 1.257 0.8000 47900 50000 -4.2 2-Chlorophenol Ave 1.312 1.827 0.0100 50500 50000 0.9 20.0 1.911 Ave n-Decane 20.0 1.618 1.591 0.0100 49200 50000 -1.7 1,3-Dichlorobenzene Ave -1.7 20.0 1.630 49200 50000 Lin2 0.0100 1,4-Dichlorobenzene 0.9 20.0 Lin2 0.8727 0.0100 50400 50000 Benzyl alcohol 20.0 Ave 1.546 1.561 0.0100 50500 50000 1.0 1,2-Dichlorobenzene 50000 20.0 1.159 0.7000 48100 -3.8 Lin2 2-Methylphenol 20.0 2.514 0.0100 61500 50000 22.9\* bis (2-chloroisopropyl) Ave 2.045 ether 127000 150000 -15.1 20.0 0.6457 0.5482. 0.0100 Indene Ave 50000 -11.0 20.0 0.8684 0.5000 44500 N-Nitrosodi-n-propylamine Lin2 20.0 47000 50000 -6.0 Lin2 1.236 0.6000 4-Methylphenol 20.0 50000 -7.6 Lin2 1,851 0.0100 46200 Acetophenone 47100 50000 -5.7 20.0 AVA 0.6239 0.5883 0.3000 Hexachloroethane 50000 -7.5 20.0 0.4121 0.2000 46200 Lin2 Nitrobenzene 50000 -7.3 20.0 0.6560 46400 Lin2 0.4000 Isophorone -1.0 20.0 49500 50000 Lin2 0.2112 0.1000 2-Nitrophenol -4.1 50000 20.0 0.4115 0.2000 48000 Lin2 2,4-Dimethylphenol -13.3 43400 50000 20.0 0.3627 0.3000 Bis (2-chloroethoxy) methane Lin2 50.0 119000 150000 -20.6 0.2125 0.0100 Benzoic acid Lin1 20.0 50000 52200 4.4 2,4-Dichlorophenol Lin2 0,3696 0.2000 20.0 50000 9.9 0.4266 0.4690 0,0100 55000 1,2,4-Trichlorobenzene Ave 20.0 1.068 0.7000 49400 50000 -1.2 1.081 Ave Naphthalene 20.0 0.4260 0.0100 49500 50000 -1.1 4-Chloroaniline Lin2 49700 50000 -0.5 20.0 0.3504 0.0100 2,6-Dichlorophenol Lin2 20.0 54300 50000 8.6 0.3412 0.0100 Lin2 Hexachlorobutadiene 50000 50.0 47800 0.0937 0.0100 -4.3 Lin2 Caprolactam 20.0 0.3166 0.2000 46800 50000 -6.4 Lin2 4-Chloro-3-methylphenol 20.0 0.8174 0,4000 53200 50000 6.4 Lin2 2-Methylnaphthalene 20.0 0.7528 0.0100 52100 50000 4.3 Lin2 1-Methylnaphthalene 50000 -7.9 20.0 46100 **Hexachlorocyclopentadiene** 0.6121 0.0500 Lin2 20.0 0.8589 0.8641 0.0100 50300 50000 0.6 1,2,4,5-Tetrachlorobenzene Ave 0.2000 50500 50000 1.0 20.0 Lin2 0,5080 2,4,6-Trichlorophenol 0.5400 0.2000 50700 50000 1.4 20.0 2,4,5-Trichlorophenol Lin2

FORM VII 8270D

04/25/2018

Lab Name: TestAmerica E	Buffalo		Job No	.: 480-133	590-1	ומר לאמי זינטי או איין איין איין איין איין איין איין		
SDG No.:								
Lab Sample ID: CCVIS 48	0-407394/	5	Calibr	ation Date:	04/05/2	018 15:	24	
Instrument ID: HP6890-2	25		Calib	Start Date:	: 03/23/2	018 12:	40	
GC Column: RTX-CLPI	II	D: 0.53(mm)	Calib	End Date:	03/23/201	8 13:58		
Lab File ID: 25_06-074.	.D		Conc.	Units: ng/	JL			
ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Linl		1.852		0.0488	0.0500	-2.4	20.0
gamma-BHC (Lindane)	Linl		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	Linl	* \$2.40° (40° (40° (40° (40° (40° (40° (40° (	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	6.00.00.000.000.000.000.000.000.000.000	0.0559	0.0500	11.8	20.0
trans-Chlordane	Lin1	29929929292929292929299999999999999999	1.482		0.0495	0.0500	-1.0	20.0
cis-Chlordane	Lin1		1.075	Constant, on an a press second constant and constant	0.0392	0.0500	-21.5*	20.0
4,4'-DDE	Lin1		1.364		0.0484	0.0500	-3.3	20.0
Endosulfan I	Linl		1.113		0.0473	0.0500	-5.3	20.0
Dieldrin	Lin1	***************************************	1.015		0.0407	0.0500	-18.6	20.0
Endrin	Lin1	and the second production of the second s	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	Linl		1.101	Contraction of Contra	0.0520	0.0500	3.9	20.0
4,4'-DDT	Linl	Contractory of the Contractory o	1.228	and a provide strand desire and the second	0.0500	0.0500	0.0	20.0
Endrin aldehyde	Lini	and the first of a scalar second s	0.9667	A REAL PROPERTY OF A REAL PROPER	0.0529	0.0500	5.8	20.0
Methoxychlor	Lin1	and the second	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	and the second	0.0440	0.0500	-11.9	20.0
Tetrachloro-m-xylene	Lin1	11111 (1111) (1111) (1111) (1111) (1111) (1111) (1111) (1111) (1111) (1111) (1111) (1111) (1111) (1111) (1111)	0.6098	an and for a second secon	0.0418	0.0500	-16.5	20.0
DCB Decachlorobiphenyl	Lini		0.9815		0.0442	0.0500	-11.7	20.0
	Increase energy and the Barrier's Content and in a second and a design of the		and the second second second second second second second					

Lab Name: TestAmerica H	Buffalo		Job No	.: 480-1335	590-1							
SDG No.:												
Lab Sample ID: CCVIS 46	30-407494/4		Calibration Date: 04/06/2018 08:56									
Instrument ID: HP6890-	7		Calib Start Date: 11/29/2017 12:34									
GC Column: ZB-35	II	0: 0.53(mm)	Calib End Date: 11/29/2017 14:09									
Lab File ID: 7_11-299.1	D		Conc.	Units: ng/u	aL		anadamatalika daga sawada it ilaan 19.45 iku	padagla siyan mini da kalanga kaki s				
ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC	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	1993	0.604	0.500	20.8*	20.0				
PCB-1016 Peak 3	Linl		0.0227		0.656	0.500	31.2*	20.0				
PCB-1016 Peak 4	Lin1	ancennemes consulting from a 4 car is bolismous in bonacies and	0.0399	900 - 1929 <b>- 1</b> 929 - 192	0.621	0.500	24.2*	20.0				
PCB-1016 Peak 5	Lin1	angen para ang pag-ang para ng pang ng	0.0309	- le mile d'autocompanies de la company de la company -	0.632	0.500	26.4*	20.0				
PCB-1260 Peak 1	Lin1		0.0530		0.696	0.500	37.3*	20.0				
PCB-1260 Peak 2	Linl		0.0588		0.665	0.500	32.9*	20.0				
PCB-1260 Peak 3	Lin1	ana ya kata da ya sa da kata ta kata kata kata kata kata ka	0.0406		0.682	0.500	36.4*	20.0				
PCB-1260 Peak 4	Linl	*****	0.0896		0.636	0.500	27.2*	20.0				
PCB-1260 Peak 5	Lini		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	Linl		1,067		0,0155	0.0125	24.2*	20.0				

04/20/2018

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 AVE RRF RRF MIN RRF CALC SPIKE 8D MAX AMOUNT AMOUNT 8D TYPE 9.8 20.0 PCB-1221 Peak 1 0.549 0.500 Linl 0.0076 0.500 20.0 Lin1 0.595 18.9 PCB-1221 Peak 2 0.0124 20.0 PCB-1221 Peak 3 Lini 0.0079 0.673 0.500 34.7\* Lini 0.594 0.500 18.8 20.0 PCB-1221 Peak 4 0.0203 20.0 Linl 0.544 0.500 8.9 PCB-1254 Peak 1 0.0441 0.708 41.6\* 20.0 0.500 Lin1 0.0336 PCB-1254 Peak 2 10.0 20.0 0.550 0.500 PCB-1254 Peak 3 Lin1 0.0753

0.0770

0.0513

Lin1

Linl

PCB-1254 Peak 4

PCB-1254 Peak 5

13.4

-10.0

0.500

0.500

0.567

0.450

20.0

20.0

Lab Name: TestAmerica	Buffalo		Job No	.: 480-133	590-1						
SDG No.:											
Lab Sample ID: CCV 48	0-407494/7		Calibr	ation Date	: 04/06/2	018 09:4	44				
Instrument ID: HP6890	-7		Calib Start Date: 11/29/2017 17:52								
GC Column: ZB-35	II	): 0.53(mm)	Calib	End Date:	11/29/201	7 18:24					
Lab File ID: 7_11-302	<b>b</b>	Conc. Units: ng/uL									
ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	<b>%</b> D	MAX &D			
PCB-1242 Peak 1	Lin1	Managana an ann an ar 17 - 27 ann an 26 an	0.0356		0.636	0.500	27.1*	20.0			
PCB-1242 Peak 2	Linl	1	0.0746		0.628	0.500	25.6*	20.0			
PCB-1242 Peak 3	Lin1		0.0291	adatan (a sua wa wije spol na substance)	0.644	0.500	28.8*	20.0			
PCB-1242 Peak 4	Lini		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 Feak 1	Linl	*****	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			

0.0287

0.0454

0.3679

0.625

0.590

0.580

0.500

0.500

0.500

25.1\*

18.1

16.0

20.0

20.0

20.0

PCB-1268 Peak 3

PCB-1268 Peak 4

PCB-1268 Peak 5

Lin1

Lin1

Linl

04/20/2018

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 Calib Start Date: 04/05/2018 11:35 Instrument ID: HP5890-12 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 CURVE AVE RRF MIN RRF CALC SPIKE ANALYTE RRF %D MAX AMOUNT TYPE AMOUNT 8D 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 20.0 PCB-1232 Peak 3 Lin1 0.0172 0.645 0.500 28.9 15.6 PCB-1232 Peak 4 Ave 0.0322 0.0373 0.578 0.500 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 20.0 Lin1 0.0500 0.580 0.500 16.1

0.0367

0.0469

0.0755

0.571

0.587

0.567

0.500

0.500

0.500

14.2

17.3

13.4

20.0

20.0

20.0

0.0321

0.0400

0.0666

Ave

Ave

Ave

PCB-1262 Peak 3

PCB-1262 Peak 4

PCB-1262 Peak 5

Lab Name: TestAmerica	Buffalo		Job No.	: 480-1340	080-1						
SDG No.:											
Lab Sample ID: CCV 48	0-409202/7		Calibration Date: 04/17/2018 10:25								
Instrument ID: HP5890	-12		Calib Start Date: 04/05/2018 12:37								
GC Column: ZB-35	I	D: 0.53(mm)	Calib End Date: 04/05/2018 13:07								
Lab File ID: 12 014 1	04.D		Conc. 1	Units: ng/1	JL						
ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	<b>%</b> D	MAX %D			
PCB-1242 Peak 1	Ave	0.0732	0.0829	18-18-29-26-9-26-20-20-20-20-20-20-20-20-20-20-20-20-20-	0.566	0.500	13.2	20.			
PCB-1242 Peak 2	Ave	0.0303	0.0353		0.584	0.500	16.7	20.			
PCB-1242 Peak 3	Ave	0.0398	0.0514		0.646	0.500	29.2*	2 20.			
PCB-1242 Peak 4	Lin1		0.0410		0.606	0.500	21.3*	20.			
PCB-1242 Peak 5	Ave	0.0295	0.0332	**********	0.563	0.500	12.6	20.			
PCB-1268 Peak 1	Ave	0.1217	0.1324	1912	0.544	0.500	8.9	20.			
PCB-1268 Peak 2	Linl		0.2066	******	0.611	0.500	22.2*	20.			
PCB-1268 Peak 3	Ave	0.1326	0.1168	1998 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 -	0.440	0.500	-11.9	20.			
PCB-1268 Peak 4	Ave	0.0582	0.0623		0.535	0.500	7.1	20.			
						and and an an and a state of the second state	Construction of the second second second				

0.4720

0.639

0.500

PCB-1268 Peak 5

Lin1

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20.0

27.8\*

Lab Name: TestAmerica B	uffalo	A	Job No	.: 480-1340	080-1							
SDG No.: Lab Sample ID: CCV 480-	409202/7		Calibr	ation Date:	04/17/2	018 10:	25					
Instrument ID: HP5890-1				Calib Start Date: 04/05/2018 12:37								
GC Column: ZB-5	I	D: 0.53(mm)	Calib	End Date: (	04/05/201	8 13:07		-				
Lab File ID: 12_014_104		Conc.	Units: ng/1	1L								
ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D				
PCB-1242 Peak 1	Ave	0.0640	0.0669	1.2012 - 1.401200 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1	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	ÄVe	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				

0.1295

0.0628

0.4514

0.1115

0.0482

0.3921

Ave

Ave

Ave

PCB-1268 Peak 3

PCB-1268 Peak 4

PCB-1268 Peak 5

16.1

30.3\*

15.1

0.500

0.500

0.500

0.581

0.652

0.576

20.0

20.0

20.0

Lab Name: TestAmerica Buffalo			Job No	.: 480-1340	80-1			
SDG No.:								
Lab Sample ID: CCV 480	Calibration Date: 04/17/2018 10:40							
Instrument ID: HP5890-12 GC Column: ZB-5 ID: 0.53(mm)			Calib Start Date: 04/05/2018 13:38					
			Calib End Date: 04/05/2018 14:09					
Lab File ID: 12 014 10	5.D		Conc.	Units: ng/u	ıL			
ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
FCB-1248 Peak 1	Linl		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

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04/25/2018

#### 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		Q	RL	MDL
79-20-9	Methyl acetate	ND	*****	25	3.0
1634-04-4	Methyl tert-butyl ether	ND	1.14 M & 1.15 A & 1.1 A & 1.1 A & 1.1 A	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	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5.0	0.25
127-18-4	Tetrachloroethene	ND		5.0	0.67
108-88-3	Toluene	ND	and the second	5.0	0.38
156-60-5	trans-1,2-Dichloroethene	ND	140 M 1990 - 140 M 17 M 1	5.0	0.52
10061-02-6	trans-1, 3-Dichloropropene	ND		5.0	2.2
79-01-6	Trichloroethene	ND	araan ahaa ahaa ahaa ahaan ahaan ahaan ahaan ahaan ahaa	5.0	1.1
75-69-4			PARTICIPACION DE LA CARACTERISTICA DE LA	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	0. a. al (a	64-126
460-00-4	4-Bromofluorobenzene (Surr)	100		72-126
1868-53-7	Dibromofluoromethane (Surr)	99	an a	60-140
2037-26-5	Toluene-d8 (Surr)	101	19493408888888888888888888888888888888888	71-125

#### FORM II PCBS SURROGATE RECOVERY

ab Name: TestAmerica Buffalo				Job No.: 480-133608-1				
SDG No.:								
Matrix: Solid				Level:	Low			
GC Column (1): ZH	3-5 ID:	0.53 (m	n)	GC Colu	umn (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			

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

# Column to be used to flag recovery values

#### FORM III GC/MS VOA MATRIX SPIKE RECOVERY

Level: Low

Lab Name: TestAmerica Buffalo

Job No.: 480-134080-1

SDG No.:

Matrix: Solid

Lab File ID: F1718.D

Lab ID: 480-134080-1 MS

Client ID: HFL-MW-105(22-24) MS

	SPIKE	SAMPLE	MS	MS	QC	
	ADDED	CONCENTRATION	CONCENTRATION	8	LIMITS	#
COMPOUND	(ug/Kg)	(ug/Kg)	(ug/Kg)	REC	REC	
1,1,1-Trichloroethane	60.9	ND	58.4	96	and the second	
1,1,2,2-Tetrachloroethane	60.9	ND	47.6	78	80-120	F1
1,1,2-Trichloro-1,2,2-trifluor oethane	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	ar fana to reco.
1,1-Dichloroethene	60.9	ND	60.0	99	59-125	
1,2,4-Trichlorobenzene	60.9	ND	40.5	67	the second se	
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	OF LONGIN & BULL
1,2-Dichloroethane	60.9	ND	54.2	89		
1,2-Dichloropropane	60.9	ND	62.4	103		
1,3-Dichlorobenzene	60.9	ND	52.7	87	74-120	
1,4-Dichlorobenzene	60.9	ND	51.5	85		
2-Butanone (MEK)	304	ND	202	66		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		
Benzene	60.9	ND	63.3	104		Percenter and an
Bromodichloromethane	60.9	ND	60.8	100		NAR STEVENIN IN FORMAT
Bromoform	60.9	ND	46.4	76		****
Bromomethane	60.9	ND	61.7	101		
Carbon disulfide	60.9	ND	53.7	88	64-131	
Carbon tetrachloride	60.9	ND	55.1	91		
Chlorobenzene	60.9	ND	58.8	97		
Chloroethane	60.9	ND	62.2	102	69-135	
Chloroform	60.9	ND	63.3	104		
Chloromethane	60.9	ND	56.3	93		
cis-1,2-Dichloroethene	60.9	ND	61.3	101		
cis-1,3-Dichloropropene	60.9	ND	53.8	88		
Cyclohexane	60.9	ND	58.1	95	65-120	
Dibromochloromethane	60.9	ND	57.3	94		and a second second
Dichlorodifluoromethane	60.9	ND	60.6	99	and the second se	
Ethylbenzene	60.9	ND	60.7	100		
Isopropylbenzene	60.9	ND	60.7	100		
Methyl acetate	122	ND	89.2	7:	and the provide strategy of the	
Methyl tert-butyl ether	60.9	ND	51.3	8		
Methylcyclohexane	60.9	ND	58.3	9		
Methylene Chloride	60.9	ND	54.7	91		
Styrene	60.		56.6	9		
Tetrachloroethene	60.1	An an internal or which a real or the second state of the second s	59.5	9	8 74-122	

# Column to be used to flag recovery and RPD values
FORM III 8260C

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04/25/2018

#### FORM III GC/MS VOA MATRIX SPIKE RECOVERY

Level: Low

Lab Name: TestAmerica Buffalo

Job No.: 480-134080-1

SDG No.:

Matrix: Solid

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	4.01.0000 A 20
Trichloroethene	60.9	ND	60.9	100	77-129	1
Trichlorofluoromethane	60.9	ND	66.0	108	65-146	10 / 10 mil 0 / 10 mil
Vinyl chloride	60.9	ND	54.1	89		
1,4-Dioxane	1220	ND	766	63	64-124	F1

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# 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

d Level: Low

Lab File ID: F1719.D

Lab ID: 480-134080-1 MSD

Client ID: HFL-MW-105(22-24) MSD

	SPIKE	MSD CONCENTRATION	MSD %	8	QC LIMITS			
COMPOUND	(ug/Kg)	(ug/Kg)	REC	RPD	RPD	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-trifluor	49.8	46.5	94	22	30	60-140		
oethane								
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		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		30	77-122		
1,2-Dichloropropane	49.8	50.2	101	22	30	75-124		
1,3-Dichlorobenzene	49.8	42.0	84		30	74-120		
1,4-Dichlorobenzene	49.8	40.5	81		30	73-120		
2-Butanone (MEK)	249	173	69		30	70-134	F1	
2-Hexanone	249	the second se	68		30	59-130		
4-Methyl-2-pentanone (MIBK)	249	183	74	and the second	30	65-133		
Acetone	249		66		30	61-137		
Benzene	49.8		102		30	79-127		
Bromodichloromethane	49.8		101		30	80-122		
Bromoform	49.8	40.6	82		30	68-126		
Bromomethane	49.8	51.4	103	and the second se	30	37-149		
Carbon disulfide	49.8	41.8	84		30	64-131		
Carbon tetrachloride	49.8		92		30	75-135	699 (17) £ 78 45 45 48 48	
Chlorobenzene	49.8	46.3	93		30	76-124		
Chloroethane	49.8	49.9	100		30	69-135		
Chloroform	49.8	51.2	103		30	80-120		
Chloromethane	49.8		90		30	63-127		
cis-1,2-Dichloroethene	49.8	49.6	100		30	80-120		
cis-1, 3-Dichloropropene	49.8	44.3	89		30	80-120		
Cyclohexane	49.8	45.9	92		30	65-120		
Dibromochloromethane	49.8	The second s	9'		30	76-125		
Dichlorodifluoromethane	49.8		9		30	57-142		
Ethylbenzene	49.6	and the second sec	9'	and the second se	30	80-120		
Isopropylbenzene	49.8		9		30	72-120	A 17 10 10 10	
Methyl acetate	99.5	71.5	7		30	55-136	and to ge and these	
Methyl tert-butyl ether	49.8	44.1	8		30	63-125		
Methylcyclohexane	49.8	46.3	9		30	60-140		
Methylene Chloride	49.8	44.5	8	9 20	30	61-127		
Styrene	49.8	45.0	9	0 23	30	80-120	en Harrantiker	
Tetrachloroethene	49.8	the second se	9	4 24	30	74-122	115 FE & WIND	

# 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
<b>Parameters:</b>	Volatile Organic Compounds (VOCs), Semivolatile Organic Compounds (SVOCs),
	Pesticides, Polychlorinated Biphenyl (PCB) Aroclors
Data Reviewers	:Samir A. Naguib and Kristen Morin/TRC
<b>Peer Reviewer:</b>	Elizabeth Denly/TRC
Date:	April 26, 2018
<b>Revision Date:</b>	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 2butanone 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 sar	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	1.1.1	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	Associated samples: HFL-SS-104, HFL-SS-105, HFL-SS-106, HFL-MW-104 (9-11)						



CC	Compound	RRF	%D	Validation Actions	
HP5973F		0.0004		The nondetect result for 1,4-dioxane was rejected (R) in the	
04/13/18 10:00	1,4-Dioxane	0.0084	6.1	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 <sup>2</sup>	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.

			0	∕₀D	I		
CCV	Instrument	Compound	Col RTX- CLP-I	Col RTX- CLP-II	Validation Actions		
04/05/18	HP6890-25	delta-BHC	-24.7	-	No qualifications were required since the results were reported from column RTX-		
@ 15:24		cis-Chlordane	-21.5	-	CLP-II which had acceptable %Ds.		
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.

			9	⁄₀D	
CCV	Instrument	Compound	Col ZB-5	Col ZB-35	Validation Actions
		PCB-1016 Peak 1		22.3	
		PCB-1016 Peak 2		20.8	
		PCB-1016 Peak 3		31.2	1
		PCB-1016 Peak 4		24.2	
04/06/18		PCB-1016 Peak 5		26.4	
@ 08:56		PCB-1260 Peak 1		37.3	1
		PCB-1260 Peak 2		32.9	1
		PCB-1260 Peak 3		36.4	No qualification required; result
	HP6890-7	PCB-1260 Peak 4		27.2	were reported from column ZB-5
		PCB-1260 Peak 5		25.0	which had acceptable average %Ds.
04/06/18		PCB-1221 Peak 3		34.7	1
@ 09:12		PCB-1254 Peak 2		41.6	10
_	-	PCB-1242 Peak 1		27.1	
04/05/40		PCB-1242 Peak 2	[ ]	25.6	1
04/06/18 @ 09:44		PCB-1242 Peak 3		28.8	1
@ 09.44		PCB-1242 Peak 4		22.3	
		PCB-1242 Peak 5	-	31.1	
Associated	samples: HFL-	SS-104, HFL-SS-105, 1	HFL-SS-106, 1	HFL-MW-104	(9-11) - Criteria met
	1	PCB-1232 Peak 1	24.8	-	No qualification was required since
04/17/18		PCB-1232 Peak 2	28.2	-	the result was nondetect and the %I
@ 10:10		PCB-1232 Peak 3	28.9	-	on the ZB-35 column was
	1.1	PCB-1232 Peak 5	25.5	-	acceptable.
04/17/18	HP5890-12	PCB-1242 Peak 3		29.2	No qualification was required since
@ 10:25	1153090-12	PCB-1242 Peak 4	59.2	21.3	the average %D was within the acceptance criteria on both columns
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.

## 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.< td=""></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
	Decachlorobiphenyl	++		65-174	%Rs since PCBs were not detected in sample HFL- MW-104 (9-11).

## **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
1.6.4.	1,1,2,2-Tetrachloroethane	78	-	-	80-120/30	The nondetect results for 1,1,2,2- tetrachloroethene, 1,2-dibromo-3-
110	1,2-Dibromo-3- Chloropropane	61	-		63-124/30	chloropropane, and 2-butanone in sample HFL-MW-105 (22-24) were
	2-Butanone	66	69		70-134/30	qualified as estimated (UJ) due to low MS/MSD recoveries.
HFL-MW- 105 (22-24)	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.

## **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	
HFL-SS-105		J-1010	sample extract.	

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 Date Analyzed: 04/05/2018 12:06				
Sample wt/vol: 8.236(g)					
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-trifluoroethan e	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	0.2
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- V	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	13

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	
Lab Name: TestAmerica Buffalo	Job No.: 480-133590-1				
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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	1	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-trifluoroethan e	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	1	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-Methy1-2-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	0.36
100-41-4	Ethylbenzene	ND		4.6	0.33
98-82-8	Isopropylbenzene	ND		4.6	0.69

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

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: 2B-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-trifluoroethan	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	90999 9999 9799 9779 - 9779 979 979 989 9999 999	4.8	0.29
96-12-8	1,2-Dibromo-3-Chloropropane	ND		4.8	2.4
106-93-4	1,2-Dibromosthane	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	an Adrian Malana Adria da Adriana da arrayo	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	יייזיאין איז	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	Chlorosthane	ND	993.812 S. (1993.914)	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	0.6
10061-01-5	cis-1,3-Dichloropropene	ND	ar an annual an annual an	4.8	0.6
110-82-7	Cyclohexane	ND		4.8	0.6
124-49-1	Dibromochloromethane	ND		4.8	0.6
75-71-8	Dichlorodifluoromethane	ND	#11: #1: #1: #1: #1: #1: #1: #1: #1: #1:	4.8	0.3
100-41-4	Ethylbenzene	ND		4.8	0.3
98-82-8	Isopropylbenzene	ND		4.8	0.7

FORM I 8260C

04/20/2018

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: 2B-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	anning an	4.8	0.73
75-09-2	Methylene Chloride	ND	1997-1993 C 1997 C 1	4.8	2.2
100-42-5	Styrene	ND		4.8	0.24
127-18-4	Tetrachloroethene	ND		4.8	0.64
108-98-3	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	an ann an chuilte an chuilte the chuile an chuile a	4.9	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	RI	-96	21

CAS NO.	SURROGATE	*REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103	1997 - 1997 - 1997 - 1997 - 1998 - 1998 - 1997 22 - 20 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 199	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

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-trifluoroethan	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	1111 I. (1999)100 (1999)100 (1998)	4.9	0.30
96-12-8	1,2-Dibromo-3-Chloropropane	ND	1979 S BER BUR WILLIAM STORE	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	analdantak la mina dapatakapi dari	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	annen ander en	4.9	0.24
75-27-4	Bromodichloromethane	ND		4.9	0.66
75-25-2	Bromoform	ND	40000000000000000000000000000000000000	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	negy zona - dia matana penerana ana	4.9	1.1
67-66-3	Chloroform	ND	******	4.9	0.31
74-87-3	Chloromethane	ND	199997 8 19197 99 19199 19199 1817 1817	4.9	0.30
156-59-2	cis-1,2-Dichloroethene	ND	NANNYARAPARAMANANANA MENANYI KANY	4.9	0.63
10061-01-5	cis-1,3-Dichloropropene	ND		4.9	0.71
110-82-7	Cyclohexane	ND	ndarada keresta gesarata da baranan dan	4.9	0.69
124-48-1	Dibromochloromethane	ND	- 11 ap	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	intra vala dili al 2 tatila fi acceletatorenda	4.9	0.7

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04/20/2018

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	<b>A</b> 5	XEL	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	a de deserva de la constatución	4.9	0.37
156-60-5	trans-1,2-Dichloroethene	ND	anta ny kaodina dia mampikamban kaominina dia kao	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	NO	RJ	59	22

CAS NO.	SURROGATE	8REC	0	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102	1997	64-126
460-00-4	4-Bromofluorobenzene (Surr)	97		72-126
1868-53-7	Dibromofluoromethane (Surr)	101	a on an a star that was named	60-140
2037-26-5	Toluene-d8 (Surr)	102		71-125

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 Aliquet Vol:	Dilution Factor: 1			
Soil Extract Vol.:	GC Column: 2B-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	Y1UT	4.7	0.76
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethan e	ND	- er	4.7	1.1
79-00-5	1,1,2-Trichloroethane	ND	1	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	and a reaction of the Product of States	4.7	0.28
96-12-8	1,2-Dibromo-3-Chloropropane	ND	X447	4.7	2.3
106-93-4	1,2-Dibromoethane	ND	a set out of the set of	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	en 246,47 m is frak frakteringen	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	NUT	23	1.7
591-78-6	2-Hexanone	ND	1 1	23	2.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	an anna sa si satan su casana da tan	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	91	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	1	4.7	2.3
56-23-5	Carbon tetrachloride	ND		4.7	0.45
108-90-7	Chlorobenzene	ND	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	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	1	4.7	0.26
156-59-2	cis-1,2-Dichloroethene	ND	Manager and a sub-processing to the second	4.7	0.60
10061-01-5	cis-1, 3-Dichloropropene	ND	ar in a second	4.7	0.6
110-82-7	Cyclohexane	ND	19 <sup>4</sup> 0 1 10 40010 (1000 (2) 100400 2 (2) 20	4.7	0.6
124-48-1	Dibromochloromethane	ND	12.00 A 12.20 Startin Management	4.7	0.6
75-71-8	Dichlorodifluoromethane	ND		4.7	0.3
100-41-4	Ethylbenzene	ND	**** <mark>************************</mark> *********	4.7	0.3
98-82-8	Isopropylbenzene	ND	1999 N. Staff of I. (1999) N. Constant	4.7	0.7

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04/25/2018

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	49.59989999999998856989999999999999999999	4.7	0.71
75-09-2	Methylene Chloride	ND	19 80 - 19 87 4 - 2 8 - 2 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7	4.7	2.2
100-42-5	Styrene	ND	940997-3944 (Pro-14) & Exception come	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	er er andere er	4.7	1.0
75-69-4	Trichlorofluoromethane	ND	1998 548 5 4 1992 9 1993 - 4 1995 5 1994 9 1997 9 1997 9 1997 9 1997 9 1997 9 1997 9 1997 9 1997 9 1997 9 1997	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	ER 1	.94	20

CAS NO.	SURROGATE	*REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103	Fridanskans (1997) - 110 1990 - 1997 - 1997 - 1997 - 1997	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



Lab Name: TestAmerica Buffalo	Job No.: 480-133590-1
SDG No.:	
Client Sample ID: <u>HFL-SS-104</u>	Lab Sample ID: <u>480-133590-1</u>
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 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	NĎ		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

Job No.: 480-133590-1
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Lab Sample ID: <u>480-133590-1</u>
Lab File ID: X210403.D
Date Collected: 04/04/2018 08:15
Date Extracted: 04/05/2018 06:39
Date Analyzed: 04/06/2018 02:50
Dilution Factor: 1
Level: (low/med) Low
GPC Cleanup:(Y/N) N
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

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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	1.3.0
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 .	1	1100	170

Lab Name: TestAmerica Buffalo	Job No.: 480-133590-1
SDG No.:	
Client Sample ID: <u>HFL~SS-106</u>	Lab Sample ID: <u>480-133590-2</u>
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: <u>1(uL)</u>	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

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	1.40
205-99-2	Benzo[b]fluoranthene	250	J	960	150

Lab Name: TestAmerica Buffalo	Job No.: 480-133590-1
SDG No.:	
Client Sample ID: HFL-SS-105	Lab Sample ID: <u>480-133590-3</u>
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: <u>30.68(g)</u>	Date Analyzed: 04/06/2018 03:42
Con. Extract Vol.: 1(mL)	Dilution Factor: 5
Injection Volume: <u>1(uL)</u>	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

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Lab Name: TestAmerica Buffalo	Job No.: <u>480-133608-1</u>
SDG No.:	
Client Sample ID: HFL-MW-104 (9-11)	Lab Sample ID: <u>480-133608-1</u>
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	1	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

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: <u>30.2</u>	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

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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: <u>30.58(g)</u>	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	101	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

Lab Name: TestAmerica Buffalo	Job No.: <u>480-134080-1</u>
SDG No.:	
Client Sample ID: HFL-MW-105(22-24)	Lab Sample ID: <u>480-134080-1</u>
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: <u>30.58(g)</u>	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	1	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



Job No.: 480-133590-1				
Lab Sample ID: 480-133590-1				
Lab File ID: 25_06-095.D				
Date Collected: 04/04/2018 08:15				
Date Extracted: 04/05/2018 06:45				
Date Analyzed: 04/05/2018 22:19				
Dilution Factor: 1				
GC Column: RTX-CLPII ID: 0.53(mm)				
GPC Cleanup:(Y/N) N				
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

Lab Name: TestAmerica Buffalo Job No.: 480-133590-1				
SDG No.:				
Client Sample ID: HFL-SS-106	Lab Sample ID: <u>480-133590-2</u>			
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	1	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

Lab Name: Te	ab Name: TestAmerica Buffalo		Job No.: 480-133590-1				
SDG No.:							
Client Sampl	e ID: HFL-SS-105	Lab Sample ID: 480-133590-3					
Matrix: Soli	d	Lab File ID: 25_06-096.D					
Analysis Met	hod: 8081B	Date Collected: 04/04/2018 08:45 Date Extracted: 04/05/2018 06:45 Date Analyzed: 04/05/2018 22:39 Dilution Factor: 1					
Extraction M	lethod: 3550C						
Sample wt/vo	ol: 30.40(g)						
Con. Extract	Vol.: 10(mL)						
Injection Volume: 1(uL)		GC Column: RTX-CLPII ID: 0.53(mm)					
% Moisture:	13.3	GPC Cleanup: (Y/N) N					
Analysis Bat	ch 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	50-29-3 4,4'-DDT		ND	anteri e Ancieni e interi anteri a Atra Pri	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	an office and decoupy is contracted as	1.9	0.95	

5103-71-9		VID	1 0	0.95
	cis-Chlordane	ND	1.9	
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	1 MA . 20 WEA ANIANJO, SCOOL & A	30-124

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	2	RL	MDL
72-54-8	4,4'-DDD	ND	T	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	hereastaries a second	2.4	1.2
319-85-7	beta-BHC	ND	14109-2214-94-9-14-14-9-14-9-14-9-14-9-14-9-	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	1	2.4	0.45
33213-65-9	Endosulfan II	ND		2.4	0.42
1031-07-8	Endosulfan sulfate	ND	19779281 N 160 II ON 197 1870-1870	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	144 A 844 844 844 844 844 844 844 844	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	ta a ta	45-120
877-09-8	Tetrachloro-m-xylene	70	antal an	30-124

FORM I PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Te	ab Name: TestAmerica Buffalo		No.: 480-1	34080-1				
SDG No.:								
Client Sampl	e ID: HFL-MW-105(22-24)	Lab	Sample ID:	480-134	1080-1	and interaction of the Antonio Sing of the Antonio		
Matrix: Soli	d	Lab File ID: 25_06-300.D						
Analysis Met	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 Vo	plume: 1(uL)	GC	Column: RTX	-CLPI	ID: 0.1	53 (mm)		
% Moisture:	20.7	GPC	Cleanup:(Y	/N) N				
Analysis Bat	ch No.: 409191	Uni	ts: ug/Kg	4. C & 114000.	+ el coco i creatores i mono	1. Stand To Be 100 kilowy 1.		
CAS NO.	COMPOUND NAME	9 m)	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		

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



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

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

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
p	

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	1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,	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

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	T.	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

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	1.740 Q. 160 (1997) (1997) (1997)	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	natione with the second	65-174

# **QC NONCONFORMANCE DOCUMENTATION**

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

Lab Name: TestAmerica Buffalo		JOD N	0.: 480	1-13322	1-1	_			_	Analy B	accul	100		1101			
SDG No.:													-		-		
Instrument ID: HP5973F			GC Co	lumn: 2	ZB-624	(30) I	D: 0	.25(mm)		_	Heated	Purge	e:	(Y/N)	Y		
Calibration Start Date: 03/	16/2018 16	:48	Calib	ration	End Da	ate: 03	8/16/	2018 19	:22		Calibra	tion	II	): <u>331</u>	47		
ANALYTE	1		RRF			CORVE		COEFFICI	ENT	#	MIN RRF	*RSD		MAX TRSD	R^2 OR COL		MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	TAT 3	LVL 4	LVL 5		В	Ml	M2								
Carbon tetrachloride	1.5961	1.6423			1.6600			1.6757			0.1000			20.0			
Isobutyl alcohol	0.0765	0.0715	0.0724		0.0820			0.0759				6.0		20.0			
Benzehe	5.8590 5.3915	4.8315	5.9867		5.4308			5.5906			0.5000			20.0			
1,2-Dichloroethane	1.8414	1.9093			1.8579			1.9218			0.1000	6.7		20.0			
n-Heptane	2.5795	2.7767 2.3273			2.5736			2.7006		-	0.2000		-	20.0		$\square$	
Trichloroethene	1.4668	1.3367	1.5365		1.4101			1.4568			0.1000			20.0			
Methylcyclohexane	2.5504	2.6175 2.3694						1.3439			0.1000			20.0			<u> </u>
1,2-Dichloropropane	1.3951 1.3318	1.2657		1.4326		1 1		0.0076			-	6.1		20.0			<u> </u>
1,4-Dioxane	0.0073	0.0070		-	0.8428			0.8375	>		0.1000			20.0			<u> </u>
Dibromomethane	0.8297 0.8448	0.8023		1.7463				1.6600			0.2000			20.0		-	
Bromodichloromethane	1.5430	1.6844		0.9109				0,8591				5.4		20.0		+	
2-Chloroethyl vinyl ether	0.7847 0.9028 2.0608	0.8641	2.1500		2.1424			2,1038		-	0.2000			20.0			<u> </u>
cis-1,3-Dichloropropene	2.1861	2.0508		0.8448				0,7365		-	0.1000			20.0			
4-Methyl-2-pentanone (NIBK)	0.6980	0.5983		1.9096			-	1.7854			0.4000	7.9		20.0			
Toluene	1.6792	1.5630	0.9244		0.9461			0.9165			0.1000	5.5		20.0		-	<u> </u>
trans-1, 3-Dichloropropene	0.9529	0.9177		0.9430				0.8879		-		4.2		20.0			
Ethyl methacrylate	0.9029	0.8673	0.5134		0.4896			0.4961		+	0.1000	3.7		20.0		+	
1,1,2-Trichloroethane	0.4851	0.4702		0.8420				0.7698		1-	0.2000	6.3		20.0		+	
Tetrachloroethene	0.7472		C					1.0104		+		4.5		20.0		+	
1,3-Dichloropropane	0.9912	0.9356															

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

FORM VI 8260C

04/20/2018

# FORM VII GC/MS VOA CONTINUING CALIBRATION DATA

ab Name: TestAmerica Buf	.1410	an and a national second second to be a second to be a second to	000 100	: 490-1335				
DG No.:	407001 //		Caldber	tion Dates	04/05/2	010 00.4	0	
ab Sample ID: CCVIS 480-	Calibration Date: 04/05/2018 08:49 Calib Start Date: 03/16/2018 16:48							
nstrument ID: HP5973F			-				8	
C Column: 2B-624 (30) VC	A I	D: 0.25(mm)	Calib H	Ind Date: 0	3/16/201	8 19:22		
ab File ID: F1490.D		***	Conc. (	Jnits: ug/L	H	eated Pur	ge: (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	1.940	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.
1,1,2-Trichloroethane	Ave	0.4961	0.5233	0,1000	52.7	50.0	5.5	20.
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.
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.
1,2-Dibromoethane	Ave	0,6239	0.6705		53.7	50.0	7.5	20.
Chlorobenzene	Ave	1.932	2.014	0.5000	52.1	50.0	4.2	20.
Ethylbenzene	Ave	3.147	3.305	0.1000	52.5	50.0	5.0	20.
1,1,1,2-Tetrachloroethane	Ave	0.5916	0.5929		50.1	50.0	0.2	20.
m,p-Xylene	Ave	1.299	1.367	0.1000	52.6	50.0	5.2	20.
o-Xylene	Ave	1.231	1.290	0.3000	52.4	50.0	4.8	20.
Styrene	Ave	2.191	2.273	0,3000	51.9	50.0	3.7	20.
Bromoform	Ave	0.3805	0.3790	0.1000	49.8	50.0	-0.4	50.
Isopropylbenzene	Ave	3.015	3.155	0.1000	52.3	50.0	4.6	20.
1,1,2,2-Tetrachloroethane	Ave	0.7587	0.8258	0,3000	54.4	50.0	8.9	20.
Bromobenzene	Ave	0.8441	0.8635		51.1	50.0	2.3	20.
N-Propylbenzene	Ave	3.531	3.697		52.3	50.0	4.7	20.
trans-1, 4-Dichloro-2-butene	Ave	0.2598	0.2661		51.2	50.0	2.4	50.
1,2,3-Trichloropropane	Ave	0.2562	0.2716		53.0	50.0	6.0	20.
2-Chlorotoluene	Ave	0.7657	0.7842		51.2	50.0	2.4	20.
1,3,5-Trimethylbenzene	Ave	2.573	2.689		52.2	50.0	4.5	20.
4-Chlorotoluene	Ave	0.8144	0.8408		51.6	50.0	3.2	20.
tert-Butylbenzene	Ave	0.5922	0.6115		51.6	50.0	3.3	20.
1,2,4-Trimethylbenzene	Ave	2.642	2.760		52.2	A second s	4.4	20.
sec-Butylbenzene	Ave	3.246	3.419		52.7	50.0	5.3	20.
4-Isopropyltoluene	λνο	2.832	2.986		52.7	50.0	5.4	20.
1,3-Dichlorobenzene	Ave	1.593	1.632	0.6000	51.2		2.4	20.
1,4-Dichlorobenzene	Ave	1.625	1.684	0.5000	and a local second second second	and the second state of the second state	3.6	20.
n-Butylbenzene	Ave	2.505	2,646		52.8		5.6	20.
1,2-Dichlorobenzene	Ave	1.487	1.514	0.4000	and the second s	and the second se	1.8	20.

FORM VII 8260C

04/20/2018

#### FORM VII GC/MS VOA CONTINUING CALIBRATION DATA

Job No.: 480-134080-1 Lab Name: TestAmerica Buffalo SDG No .: Calibration Date: 04/13/2018 10:00 Lab Sample ID: CCVIS 480-408660/3 Instrument ID: HP5973F Calib Start Date: 03/16/2018 16:48 Calib End Date: 03/16/2018 19:22 GC Column: ZB-624 (30) VOA ID: 0.25(mm) Conc. Units: ug/L Heated Purge: (Y/N) Y Lab File ID: F1696.D MAX CURVE MIN RRF CALC SPIKE 8D AVE RRF RRF ANALYTE AMOUNT AMOUNT &D TYPE 51.0 50.0 2.0 20.0 0.1000 Methylcyclohexane 2.635 2.687 Ave 20.0 0.1000 50.9 50.0 1.7 1.344 1.367 1,2-Dichloropropane Ave 50.0 0.0084 1110 1000 10.6 0.0076 1,4-Dioxane Ave 5.2 20.0 52.6 50.0 0.8375 0.8812 0.1000 Dibromomethane Ave 20.0 3.7 50.0 1.660 1.721 0.2000 51.0 Bromodichloromethane Ave 20.0 49.9 50.0 -0.1 0.8591 0.8579 2-Chloroethyl vinyl ether Ave 50.0 -0.8 20.0 0.2000 49.6 2.086 cis-1,3-Dichloropropene Ave 2,104 256 250 2.2 20.0 0.1000 0.7365 0.7528 4-Methyl-2-pentanone (MIBK) Ave 1.1 20.0 50.0 50.6 1.785 1.806 0.4000 Toluene Ave 20.0 50.0 -1.2 0.9055 0.1000 49.4 Ave 0.9165 trans-1, 3-Dichloropropene 20.0 49.4 50.0 -1.2 0.8879 0.8771 Ethyl methacrylate Ave 20.0 50.7 50.0 1.4 0.5029 0.1000 0.4961 1,1,2-Trichlorosthane Ave 52.4 4.8 20.0 50.0 0.8069 0,2000 0.7698 Tetrachloroethene Ave 20.0 50.0 2.6 1.036 51.3 1,3-Dichloropropane Ave 1.010 20.0 0.1000 259 250 3.5 0.5687 0.5885 Ave 2-Hexanone 50.0 7.3 20.0 0.6290 0.1000 53.6 0.5864 Dibromochloromethane Ave 0.6492 52.0 50.0 4.0 20.0 0.6239 1,2-Dibromoethane Ave 20.0 1,995 0.5000 51.6 50.0 3.2 1,932 Chlorobenzene Ave 20.0 0.1000 51.8 50.0 3.5 3.147 3.257 Ethylbenzene Ave 20.0 0.5906 49.9 50.0 -0.2 1,1,1,2-Tetrachloroethane 0.5916 Ave 1.329 0.1000 51.1 50.0 2.3 20.0 1.299 m,p-Xylene Ave 1.263 20.0 0.3000 51.3 50.0 2.7 o-Xylene Ave 1,231 50.0 1.7 20.0 2.229 0.3000 50.9 Styrene Ave 2.191 50.0 2.0 Bromoform Ave 0.3805 0.3883 0.1000 51.0 50.0 20.0 Ava 3.015 3.054 0.1000 50.6 50.0 1.3 Isopropylbenzene 0.3000 50.0 3.2 20.0 1,1,2,2-Tetrachloroethane 0.7587 0.7830 51.6 Ave 50.0 0.7 20.0 Ave 0.8441 0.8500 50.3 Bromobenzene 2.3 20.0 50.0 N-Propylbenzene AVA 3.531 3,612 51.1 50.0 50.0 -3.3 trans-1, 4-Dichloro-2-butene Ave 0.2598 0.2512 48.3 20.0 0.2562 0.2560 50.0 50.0 -0.0 1,2,3-Trichloropropane Ave -0.2 20.0 0.7641 49.9 50.0 2-Chlorotoluene Ave 0.7657 20.0 50.0 0.6 2.588 50.3 1,3,5-Trimethylbenzene Ave 2,573 20.0 50.6 50.0 1.2 0.8144 0.8238 4-Chlorotoluene Ave 20.0 0.6016 50.8 50.0 1.6 Ave 0.5922 tert-Butylbenzene 2.642 2,668 50.5 50.0 1.0 20.0 1,2,4-Trimethylbenzene Ave 20.0 3.292 50.7 50.0 1.4 3.246 sec-Butylbenzene Ave 50.0 1.6 20.0 2.077 50.8 2.832 4-Isopropyltoluene Ave 20.0 0.6000 50.6 50.0 1.3 1.593 1.614 Ave 1,3-Dichlorobenzene 20.0 1.634 0.5000 50.3 50.0 0.6 1.625 Ave 1,4-Dichlorobenzene 51.3 50.0 2.7 20.0 2.505 2.572 Ave n-Butylbenzene 0.4000 49.8 50.0 -0.3 20.0 1.487 1.483 1,2-Dichlorobenzene Ave

FORM VII 8260C

04/25/2018

#### 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	COEFFICIENT		NT	#	MIN RRF	RSD		R^2 OR COD	#	MIN R^2	
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	TYPE	B	M1	M2				*RSD	OK COD	-	OR COD
Diethyl phthalate	1.4311	1.5067	1.5176	1.6454	1.6361	Ave		1.5772		and an other states	0.0100		20.0			
Hexadecane	1.1441	1.1564	1.1904	1.2438	1.2385	Ave		1.2046		dame receive	0.0100	3.4	20.0			
4-Chlorophenyl phenyl ether	0.7716	0.8325	0.8291	0.8645	0.8739	Ave		0.8455			0.4000		20.0			
4-Nitroaniline	0.2732	0.3131 0.4113			0.4053			0.3641			0.0100		20.0			
Fluorene	1.4794	1.5320 1.6204	1.4904	1.5930				1.5544			0.9000	3.6	20.0			
4,6-Dinitro-2-methylphenol	0.0540	0.0923			0.1485		-0.527	0.1531			0.0100	8.7		0.9920		0.9900
Dipbenylamine	0.5886	0.6498	0.6156	0.6250				0.6377			0.0100	•	20.0			
N-Nitrosodiphenylamine	0.5032	0.5556	0.5263	0.5344				0.5453			0.0100	4.8	20.0		Constant Printerio	
1,2-Diphenylhydrazine	0.7568	0.8349	0.8232	0.8207	0.8530			0.8307			0.0100	4.5	20.0			
trans-Azobenzene	0.7568	0.8349	0.8232	0.8207	0.8530			0.8307			0.0100		20.0			
4-Bromophenyl phenyl ether	0.2105	0.2397	0.2610	0.2593	0.2620		-0.147	0.2690			0.1000			0.9990		0.9900
Hexachlorobenzene	0.2568	0.2566		0.2619				0.2631			0.1000	4.1	20.0			
Atrazine	0,3833 0,4539	0.4433 0.4484						0.4652			0.0100		1	0.9990		0.9900
Pentachlorophenol	++++++ 0.1665	0.0174			0.1483			0.1575			0.0500			0.9700	5	0.9900
n-Octadecane	0.5130	0.5661 0.6156		0.5875	0.6081		-0.231	0.6056		-	0.0100			0.9990		0.9900
Phenanthrene	1.0507	1.0835		1.1085	1.1088			1.1094			0.7000		20.0			
Anthracene	1.0589 1.2166	1.1131 1.2034			1.1829			1.1512			0.7000	4.8	20.0			
Carbazole	0.8851 1.0479	0.9838 1.0663						1.0399			0.0100	2.3		0.9990		0.9900
Di-n-butyl phthalate	1.0997 1.3150	1.3603			1.2528			1.2974			0.0100	3.5		0.9990		0.9900
Fluoranthene	1.1616	1.2543	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 VI 8270D
#### 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 Calib Start Date: 04/09/2018 16:24 Instrument ID: HP5973X Calib End Date: 04/09/2018 19:04 GC Column: RXI-5S11 MS ID: 0.25(mm) Conc. Units: ug/L Lab File ID: X210604.D MIN RRF CURVE CALC SPIKE &D MAX AVE RRF RRF ANALYTE AMOUNT 8D TYPE AMOUNT 45900 50000 -8.3 20.0 Lin2 0.4990 0.0100 1,4-Dioxane 1.389 0.0100 64900 50000 29.8 50.0 N-Nitrosodimethylamine Lin2 0.0100 119000 100000 18.8 50.0 Pyridine Ave 1.405 1,669 50.0 0.996 0.8379 0.0100 42000 50000 -15.9 Benzaldehyde Ave 1.627 1.475 0.8000 45300 50000 -9.3 20.0 Ava Phenol 1.785 0.0100 47000 50000 -6.0 20.0 1.900 Aniline Ave 1.076 44300 50000 -11.5 20.0 1.215 0.7000 Bis(2-chloroethyl)ether Ave 20.0 1.257 0.8000 47900 50000 -4.2 2-Chlorophenol Ave 1.312 1.827 0.0100 50500 50000 0.9 20.0 1.911 Ave n-Decane 20.0 1.618 1.591 0.0100 49200 50000 -1.7 1,3-Dichlorobenzene Ave -1.7 20.0 1.630 49200 50000 Lin2 0.0100 1,4-Dichlorobenzene 0.9 20.0 Lin2 0.8727 0.0100 50400 50000 Benzyl alcohol 20.0 Ave 1.546 1.561 0.0100 50500 50000 1.0 1,2-Dichlorobenzene 50000 20.0 1.159 0.7000 48100 -3.8 Lin2 2-Methylphenol 20.0 2.514 0.0100 61500 50000 22.9\* bis (2-chloroisopropyl) Ave 2.045 ether 127000 150000 -15.1 20.0 0.6457 0.5482. 0.0100 Indene Ave 50000 -11.0 20.0 0.8684 0.5000 44500 N-Nitrosodi-n-propylamine Lin2 20.0 47000 50000 -6.0 Lin2 1.236 0.6000 4-Methylphenol 20.0 50000 -7.6 Lin2 1,851 0.0100 46200 Acetophenone 47100 50000 -5.7 20.0 AVA 0.6239 0.5883 0.3000 Hexachloroethane 50000 -7.5 20.0 0.4121 0.2000 46200 Lin2 Nitrobenzene 50000 -7.3 20.0 0.6560 46400 Lin2 0.4000 Isophorone -1.0 20.0 49500 50000 Lin2 0.2112 0.1000 2-Nitrophenol -4.1 50000 20.0 0.4115 0.2000 48000 Lin2 2,4-Dimethylphenol -13.3 43400 50000 20.0 0.3627 0.3000 Bis (2-chloroethoxy) methane Lin2 50.0 119000 150000 -20.6 0.2125 0.0100 Benzoic acid Lin1 20.0 50000 52200 4.4 2,4-Dichlorophenol Lin2 0,3696 0.2000 20.0 50000 9.9 0.4266 0.4690 0,0100 55000 1,2,4-Trichlorobenzene Ave 20.0 1.068 0.7000 49400 50000 -1.2 1.081 Ave Naphthalene 20.0 0.4260 0.0100 49500 50000 -1.1 4-Chloroaniline Lin2 49700 50000 -0.5 20.0 0.3504 0.0100 2,6-Dichlorophenol Lin2 20.0 54300 50000 8.6 0.3412 0.0100 Lin2 Hexachlorobutadiene 50000 50.0 47800 0.0937 0.0100 -4.3 Lin2 Caprolactam 20.0 0.3166 0.2000 46800 50000 -6.4 Lin2 4-Chloro-3-methylphenol 20.0 0.8174 0,4000 53200 50000 6.4 Lin2 2-Methylnaphthalene 20.0 0.7528 0.0100 52100 50000 4.3 Lin2 1-Methylnaphthalene 50000 -7.9 20.0 46100 **Hexachlorocyclopentadiene** 0.6121 0.0500 Lin2 20.0 0.8589 0.8641 0.0100 50300 50000 0.6 1,2,4,5-Tetrachlorobenzene Ave 0.2000 50500 50000 1.0 20.0 Lin2 0,5080 2,4,6-Trichlorophenol 0.5400 0.2000 50700 50000 1.4 20.0 2,4,5-Trichlorophenol Lin2

FORM VII 8270D

04/25/2018

Lab Name: TestAmerica E	Name: TestAmerica Buffalo		Job No.: 480-133590-1							
SDG No.:										
Lab Sample ID: CCVIS 48	80-407394/5	5	Calibr	ation Date:	04/05/2	018 15:	24			
Instrument ID: HP6890-2	25		Calib Start Date: 03/23/2018 12:40							
GC Column: RTX-CLPI	II	D: 0.53(mm)	Calib	End Date: (	03/23/201	8 13:58				
Lab File ID: 25_06-074.	.D		Conc.	Units: ng/u	JL					
ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC	SPIKE AMOUNT	%D	MAX %D		
alpha-BHC	Linl	*** # \$1.41.41.11.11.11.11.11.11.11.11.11.11.11	1.852		0.0488	0.0500	-2.4	20.0		
gamma-BHC (Lindane)	Linl	alaria (dagaa) (see a soo soo soo soo soo soo soo soo soo s	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	Linl	a (p. k M M M M. ). • (f. ).	1.217		0.0377	0.0500	-24.7*	20.0		
Heptschlor	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	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	0.0559	0.0500	11.8	20.0		
trans-Chlordane	Lin1	1999-999-999-999-999-999-999-999-999-99	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	Linl	I MANAGE CONTRACTOR OF CONT	1.015	a de la constante	0.0407	0.0500	-18.6	20.0		
Endrin	Lin1	une de la constante de la const	1.389		0.0566	0.0500	13.2	20.0		
4,4'-DDD	Lin1	AND ADDRESS OF A DRESS	1.133		0.0502	0.0500	0.5	20.0		
Endosulfan II	Linl		1.101	and the second	0.0520	0.0500	3.9	20.0		
4,4'-DDT	Linl		1.228	and a provide strategic state of the second strategic st	0.0500	0.0500	0.0	20.0		
Endrin aldehyde	Lini	**********	0.9667		0.0529	0.0500	5.8	20.0		
Methoxychlor	Lin1	and the second	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	and the second design of the second designed of	0.0440	0.0500	-11.9	20.0		
Tetrachloro-m-xylene	Lin1	A REAL PROPERTY AND A REAL	0.6098		0.0418	0.0500	-16.5	20.0		
DCB Decachlorobiphenyl	Lin1	Construction of the second s	0.9815	and the second se	0.0442	0.0500	-11.7	20.0		

Lab Name: TestAmerica H	Buffalo		Job No	.: 480-1335	590-1			
SDG No.:								
Lab Sample ID: CCVIS 46	30-407494/4		Calibra	ation Date:	: 04/06/2	018 08:	56	
Instrument ID: HP6890-	7	* .). ***** ***** ######################	Calib	Start Date:	11/29/2	017 12:3	34	
GC Column: ZB-35	II	D: 0.53(mm)	Calib 1	End Date:	11/29/201	7 14:09		**************************************
Lab File ID: 7_11-299.1	D		Conc.	Units: ng/u	aL		anadamatalika daga sawada it ilawa 19.45 iku	analysis, species and a submouse and a
ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC	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	1993 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 -	0.604	0.500	20.8*	20.0
PCB-1016 Peak 3	Linl		0.0227		0.656	0.500	31.2*	20.0
PCB-1016 Peak 4	Lin1	ancennemes consulting from a 4 car is bolistican in bonacia and	0.0399	900 - 1929 <b>- 1</b> 929 - 192	0.621	0.500	24.2*	20.0
PCB-1016 Peak 5	Lin1	angen para ang pag-ang para ng pang ng	0.0309	**************************************	0.632	0.500	26.4*	20.0
PCB-1260 Peak 1	Lin1		0.0530		0.696	0.500	37.3*	20.0
PCB-1260 Peak 2	Linl		0.0588		0.665	0.500	32.9*	20.0
PCB-1260 Peak 3	Lin1	rain y name day an yan in ini karina na mang a sa nan na yana ana ana ana ana ana ana an	0.0406		0.682	0.500	36.4*	20.0
PCB-1260 Peak 4	Linl	*****	0.0896		0.636	0.500	27.2*	20.0
PCB-1260 Peak 5	Lini		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	Linl		1,067		0,0155	0.0125	24.2*	20.0

04/20/2018

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 AVE RRF RRF MIN RRF CALC SPIKE 8D MAX AMOUNT AMOUNT 8D TYPE 9.8 20.0 PCB-1221 Peak 1 0.549 0.500 Linl 0.0076 0.500 20.0 Lin1 0.595 18.9 PCB-1221 Peak 2 0.0124 20.0 PCB-1221 Peak 3 Lini 0.0079 0.673 0.500 34.7\* Lini 0.594 0.500 18.8 20.0 PCB-1221 Peak 4 0.0203 20.0 Linl 0.544 0.500 8.9 PCB-1254 Peak 1 0.0441 0.708 41.6\* 20.0 0.500 Lin1 0.0336 PCB-1254 Peak 2 10.0 20.0 0.550 0.500 PCB-1254 Peak 3 Lin1 0.0753

0.0770

0.0513

Lin1

Linl

PCB-1254 Peak 4

PCB-1254 Peak 5

13.4

-10.0

0.500

0.500

0.567

0.450

20.0

20.0

Lab Name: TestAmerica	Buffalo		Job No	.: 480-133	590-1			
SDG No.:								
Lab Sample ID: CCV 48	0-407494/7		Calibr	ation Date:	: 04/06/2	018 09:4	44	
Instrument ID: HP6890	-7		Calib	Start Date	: 11/29/2	017 17:	52	
GC Column: ZB-35	II	): 0.53(mm)	Calib	End Date:	11/29/201	7 18:24		
Lab File ID: 7_11-302	.D	<b>b</b>	Conc.	Units: ng/u	uL			
ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	<b>%</b> D	MAX &D
PCB-1242 Peak 1	Lin1	Maninakananan di uni ya karang uni karang karang Karang karang karang Karang karang	0.0356		0.636	0.500	27.1*	20.0
PCB-1242 Peak 2	Linl		0.0746		0.628	0.500	25.6*	20.0
PCB-1242 Peak 3	Lin1		0.0291	adatan (A-AA wa A) Propio ha anago <b>mananan</b>	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 Feak 1	Linl	*****	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

0.0287

0.0454

0.3679

0.625

0.590

0.580

0.500

0.500

0.500

25.1\*

18.1

16.0

20.0

20.0

20.0

PCB-1268 Peak 3

PCB-1268 Peak 4

PCB-1268 Peak 5

Lin1

Lin1

Linl

04/20/2018

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 Calib Start Date: 04/05/2018 11:35 Instrument ID: HP5890-12 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 CURVE AVE RRF MIN RRF CALC SPIKE ANALYTE RRF %D MAX AMOUNT TYPE AMOUNT 8D 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 20.0 PCB-1232 Peak 3 Lin1 0.0172 0.645 0.500 28.9 15.6 20.0 PCB-1232 Peak 4 Ave 0.0322 0.0373 0.578 0.500 PCB-1232 Peak 5 Ave 0.0158 0.0199 0.628 0.500 25.5\* 20.0 0.524 PCB-1262 Peak 1 Ave 0.0572 0.0599 0.500 4.8 20.0 20.0 PCB-1262 Peak 2 Lin1 0.0500 0.580 0.500 16.1

0.0367

0.0469

0.0755

0.571

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0.567

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PCB-1262 Peak 3

PCB-1262 Peak 4

PCB-1262 Peak 5

Lab Name: TestAmerica	Buffalo	ana expression in the second science in the second science of the	Job No.: 480-134080-1							
SDG No.:							and the second disc second			
Lab Sample ID: CCV 48	0-409202/7		Calibration Date: 04/17/2018 10:25							
Instrument ID: HP5890	-12		Calib :	Start Date	: 04/05/2	018 12:	37			
GC Column: ZB-35	I	D: 0.53(mm)	Calib 1	End Date:	04/05/201	8 13:07				
Lab File ID: 12 014 1	04.D		Conc.	Units: ng/1	JL					
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.		
PCB-1242 Peak 2	Ave	0.0303	0.0353		0.584	0.500	16.7	20.		
PCB-1242 Peak 3	Ave	0.0398	0.0514		0.646	0.500	29.2*	20.		
PCB-1242 Peak 4	Lin1		0.0410		0.606	0.500	21.3*	20.		
PCB-1242 Peak 5	Ave	0.0295	0.0332	*******	0.563	0.500	12.6	20.		
PCB-1268 Peak 1	Ave	0.1217	0.1324	19 <sup>1</sup> 2	0.544	0.500	8.9	20.		
PCB-1268 Peak 2	Linl		0.2066	*****	0.611	0.500	22.2*	20.		
PCB-1268 Peak 3	Ave	0.1326	0.1168	1997 - Carolina Carolina (1997) - Carolina (1997)	0.440	0.500	-11.9	20.		
PCB-1268 Peak 4	Ave	0.0582	0.0623		0.535	0.500	7.1	20.		
						and an and a second sec	and the second s			

0.4720

0.639

0.500

PCB-1268 Peak 5

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20.0

27.8\*

Lab Name: TestAmerica B	uffalo	A	Job No	.: 480-1340	080-1					
SDG No.: Lab Sample ID: CCV 480-	409202/7		Calibration Date: 04/17/2018 10:25							
Instrument ID: HP5890-1				Start Date:						
GC Column: ZB-5	I	D: 0.53(mm)	Calib	End Date: (	04/05/201	8 13:07		-		
Lab File ID: 12_014_104	•D		Conc.	Units: ng/1	1L					
ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	€D	MAX %D		
PCB-1242 Peak 1	Ave	0.0640	0.0669	1.2012 - 1.401200 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1.40120 - 1	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	ÄVe	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		

0.1295

0.0628

0.4514

0.1115

0.0482

0.3921

Ave

Ave

Ave

PCB-1268 Peak 3

PCB-1268 Peak 4

PCB-1268 Peak 5

16.1

30.3\*

15.1

0.500

0.500

0.500

0.581

0.652

0.576

20.0

20.0

20.0

Lab Name: TestAmerica	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:	04/05/2	018 13:	38			
GC Column: ZB-5	II	D: 0.53(mm)	Calib 1	End Date: 0	4/05/201	8 14:09				
Lab File ID: 12 014 10	5.D		Conc.	Units: ng/u	ıL					
ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D		
FCB-1248 Peak 1	Linl		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		

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04/25/2018

#### FORM I GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo	falo 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	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	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	140 47 140 - 141 14 3° 84 17 1 40° 8 1 5 5 5 6	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	anna ta ta an	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	and the second	100	22

CAS NO.	SURROGATE	*REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101	94.494/2012/2012/2012/2012/2012 24.494/2012/2012/2012/2012/2012/2012/2012/201	64-126
460-00-4	4-Bromofluorobenzene (Surr)	100		72-126
1868-53-7	Dibromofluoromethane (Surr)	99	00001078819104080919999	60-140
2037-26-5	Toluene-d8 (Surr)	101	******************	71-125

#### FORM II PCBS SURROGATE RECOVERY

ab Name: <u>TestAmerica Buffalo</u>				Job No.: 480-133608-1				
Matrix: Solid				Level:	Low			
GC Column (1): ZH	3-5 ID:	0.53 (m	n)	GC Colu	umn (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			

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

# Column to be used to flag recovery values

#### FORM III GC/MS VOA MATRIX SPIKE RECOVERY

Level: Low

Lab Name: TestAmerica Buffalo

Job No.: 480-134080-1

SDG No.:

Matrix: Solid

Lab File ID: F1718.D

Lab ID: 480-134080-1 MS

Client ID: HFL-MW-105(22-24) MS

	SPIKE	SAMPLE	MS	MS	QC	
	ADDED	CONCENTRATION		8	LIMITS	#
COMPOUND	(ug/Kg)	(ug/Kg)	(ug/Kg)	REC	REC	
1,1,1-Trichloroethane	60.9	ND	58.4	96	and the second	
1,1,2,2-Tetrachloroethane	60.9	ND	47.6		280-120	F1
1,1,2-Trichloro-1,2,2-trifluor oethane	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	and the first of the second of the second seco	54.2	89	77-122	
1,2-Dichloropropane	60.9	ND	62.4	103	75-124	
1,3-Dichlorobenzene	60.9		52.7	87	74-120	
1,4-Dichlorobenzene	60.9	ND	51.5	85		
2-Butanone (MEK)	304	ND	202	66		F1
2-Hexanone	304	ND	197	65		
4-Methyl-2-pentanone (MIBK)	304	ND	209	69		
Acetone	304	ND	206	68		
Benzene	60.9	ND	63.3	104	and the second	
Bromodichloromethane	60.9	ND	60.8	100		
Bromoform	60.9	ND	46.4	76		
Bromomethane	60.9	ND	61.7	101		
Carbon disulfide	60.9	ND	53.7	88	64-131	
Carbon tetrachloride	60.9	ND	55.1	91		
Chlorobenzene	60.9	ND	58.8	97		-
Chloroethane	60.9	ND	62.2	102	69-135	
Chloroform	60.9	ND	63.3	104		
Chloromethane	60.9	ND	56.3	93		
cis-1,2-Dichloroethene	60.9	ND	61.3	101		
cis-1,3-Dichloropropene	60.9	ND	53.8	88		
Cyclohexane	60.9	ND	58.1	95	65-120	1
Dibromochloromethane	60.9	ND	57.3	94		The second second
Dichlorodifluoromethane	60.9	ND	60.6	99	and a state of the	
Ethylbenzene	60.9	ND	60.7	100		
Isopropylbenzene	60.9	ND	60.7	100		
Methyl acetate	122		89.2	73	A REAL PROPERTY OF A REAL PROPERTY OF	
Methyl tert-butyl ether	60.9	ND	51.3	84		
Methylcyclohexane	60.9	9 ND	58.3	91		
Methylene Chloride	60.9	9 ND	54.7	90		
Styrene	60.9	9 ND	56.6	9:		
Tetrachloroethene	60.1	and a set of the set o	59.5	91	8 74-122	

# Column to be used to flag recovery and RPD values
FORM III 8260C

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04/25/2018

#### FORM III GC/MS VOA MATRIX SPIKE RECOVERY

Level: Low

Lab Name: TestAmerica Buffalo

Job No.: 480-134080-1

SDG No.:

Matrix: Solid

Lab ID: 480-134080-1 MS

Lab File ID: F1718.D

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	40.00 A 200
Trichloroethene	60.9	ND	60.9	100	77-129	0.100-10.00 Alizza B
Trichlorofluoromethane	60.9	ND	66.0	108	65-146	10.1000.01000
Vinyl chloride	60.9	ND	54.1	89		
1,4-Dioxane	1220	ND	766	63	64-124	F1

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# Column to be used to flag recovery and RPD values
FORM III 8260C

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#### 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

	SPIKE	MSD CONCENTRATION	MSD	8	QC LI	MITS	#
COMPOUND	(ug/Kg)	(ug/Kg)	REC	RPD	RPD	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	
L,1,2-Trichloro-1,2,2-trifluor	49.8	46.5	94	22	30	60-140	
bethane							
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	Constant of the
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		30	78-120	
1,2-Dichlorobenzene	49.8	42.4	85	22	30	75-120	
1,2-Dichloroethane	49.8	44.9	90		30	77-122	
1,2-Dichloropropane	49.8	50.2	101	22	30	75-124	
1,3-Dichlorobenzene	49.8	42.0	84		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		30	59-130	
4-Methyl-2-pentanone (MIBK)	249	183	74		30	65-133	
Acetone	249	165	66		30	61-137	
Benzene	49.8	50.7	102		30	79-127	
Bromodichloromethane	49.8	50.5	101		30	80-122	
Bromoform	49.8	40.6	82		30	68-126	
Bromomethane	49.8	51.4	103		30	37-149	
Carbon disulfide	49.8	41.8	84		30	64-131	
Carbon tetrachloride	49.8	45.7	92		30	75-135	899 (17 g 19 6) / K
Chlorobenzene	49.8		93		30	76-124	
Chloroethane	49.8	49.9	100	22	30	69-135	
Chloroform	49.8	51.2	103		30	80-120	
Chloromethane	49.8	44.6	90		30	63-127	ana / papi a reals
cis-1,2-Dichloroethene	49.8	49.6	100		30	80-120	
cis-1, 3-Dichloropropene	49.8	44.3	89		30	80-120	
Cyclohexane	49.8	45.9	93		.30	65-120	agant And Support in
Dibromochloromethane	49.8	The second s	9'		30	76-125	
Dichlorodifluoromethane	49.8	All I are the set of the	9		30	57-142	
Ethylbenzene	49.8	48.2	9'		30	80-120	and the second second
Isopropylbenzene	49.8	48.0	9		30	72-120	Training and so in
Methyl acetate	99.5	71.5	7	and the second se	30	55-136	
Methyl tert-butyl ether	49.8	44.1	8		30	63-125	
Methylcyclohexane	49.8	46.3	9		30	60-140	
Methylene Chloride	49.8	44.5	8		30	61-127	a dia no core de
Styrene	49.8	CONTRACTOR OF A	9	0 23	30	80-120	PLANET PLANET
Tetrachloroethene	49.8		9	4 24	30	74-122	113 12-2-201000

# Column to be used to flag recovery and RPD values

FORM III 8260C

## CTRC

## **Data Usability Summary Report**

Site:	Hoosick Falls Landfill
Laboratory:	Test America - Buffalo, Amherst, NY
SDG:	480-134613-1
<b>Parameters:</b>	Metals
Data Reviewer:	Samir A. Naguib/TRC
<b>Peer Reviewer:</b>	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 @ 11:28 480-410722/29 04/24/18 @ 12:12	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.
Associated sample:	HFL-MW-10	06 (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	

## **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	1
	Iron	3.40 J mg/Kg	
Associated samp	le: HFL-MW	-106 (19-21)	A



## **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	JOD 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	10.9	4.7	mg/Kg		1	1	6010C
7440-36-0	Antimony	M	16.2	0.43	mg/Kg		UJ'	1	6010C
7440-38-2	Arsenic	4.9	2.2	0.43	mg/Kg	1	TIN	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	X	17	1	6010C
7440-70-2	Calcium	1080	53.9	3.6	mg/Kg		Ø	1	6010C
7440-47-3	Chromium	19.7	0.54	0.22	mg/Kg	1	R	1	6010C
7440-48-4	Cobalt	9.0	0.54	0.054	mg/Kg		1	1	6010C
7440-50-8	Copper	19.9	1.1	0.23	mg/Kg		1	1	6010C
7439-89-6	Iron	21300	10.8	3.8	mg/Kg	1	R	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	^	1	6010C
7440-02-0	Nickel	20.0	5.4	0.25	mg/Kg	1		1	6010C
7440-09-7	Potassium	5210	32.4	21.6	mg/Kg		1	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	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	1	6010C
7440-62-2	Vanadium	28.2	0.54	0.12	mg/Kg			<u> </u>	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

	ICVL 480-410722/7         CCVL 480-410722/17         CCVL 480-410722/17           04/24/2018         10:41         04/24/2018         11:28         04/24/2018         11:28											
Analyte	Found	с	True	%R	Found	с	True	%R	Found	с	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	N 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	1	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.

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#### 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

	True	Found	
			Percent
Analyte	Solution A	Solution A	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

05/11/2018

#### 3-IN METHOD BLANK METALS

Lab Name: TestAmerica Buffalo

Job No.: 480-134613-1

SDG No.:

Concentration Units: mg/Kg

Instrument Code: ICAP1

Lab Sample ID: MB 480-410124/1-A

Batch No.: 410498

CAS No.	Analyte	Concentration	С	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

05/11/2018



## **Data Usability Summary Report**

Site:	Hoosick Falls Landfill
Laboratory:	Test America - Buffalo, Amherst, NY
SDG:	480-134613-1
<b>Parameters:</b>	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 sat	mple: 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 s - Criteria me				

## **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.

			9/	óD			
CC	Instrument	Compound	Col RTX- CLP-I	Col RTX- CLP-II	Validation Actions		
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.

1	1	1	9	6D				
CC	Instrument	Compound	Col ZB-5	Col ZB-35	Validation Actions			
04/30/18		PCB-1221 Peak 1		97.9	No qualification required; results			
(a) 10:32	HP5890-12	PCB-1221 Peak 2	25.5	28.7	were reported from column ZB-5			
@ 10.52		PCB-1221 Peak 3		21.6	which had acceptable average %Ds.			
		PCB-1254 Peak 1	1	23.2	1			
	0	PCB-1254 Peak 3	22.3	29.3				
		PCB-1254 Peak 4	( i	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	1			
		PCB-1232 Peak 3	47.4	23.7	1			
		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		1			
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		15-1			
		PCB-1242 Peak 3	45.5	48.7	1			
	1	PCB-1242 Peak 4	39.8	29.2	1			
		PCB-1242 Peak 5	58.9	22.5				

## 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-trifluoroethan e	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 1.3
591-78-6	2-Hexanone	ND		18	1.8
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		18	1.3
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	1.0
74-83-9	Bromomethane	ND		3.6	0.32
75-15-0	Carbon disulfide	ND		3.6	1.0
56-23-5	Carbon tetrachloride	ND		3.6	0.3
108-90-7	Chlorobenzene	ND		3.6	0.41
75-00-3	Chloroethane	ND		3.6	0.8
67-66-3	Chloroform	ND		3.6	0.2
74-87-3	Chloromethane	ND		3.6	0.2
156-59-2	cis-1,2-Dichloroethene	ND		3.6	0.4
10061-01-5	cis-1,3-Dichloropropene	ND		3.6	0.5
110-82-7	Cyclohexane	ND		3.6	0.5
124-48-1	Dibromochloromethane	ND		3.6	0.4
75-71-8	Dichlorodifluoromethane	ND		3.6	0.3
100-41-4	Ethylbenzene	ND		3.6	0.2
98-82-8	Isopropylbenzene	ND	1 setting	3.6	0.5

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#### 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: 2B-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	1	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	NO	DJ	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	in percent	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 8270D

05/11/2018

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	Contraction of the	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: Te	stAmerica 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: <u>12_015_064.D</u>						
Analysis Met	hod: 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 Vo	lume: 1(uL)	GC Column: ZB-5 ID: 0.53(mm)						
<pre>% Moisture:</pre>	11.9	GPC Cleanup: (Y/N) N						
Analysis Bat	ch No.: 411578	Units: mg/Kg	anaan karaf dhamayan ba bernar					
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					

SURROGATE

FORM	I	8082A	
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11141-16-5

53469-21-9

12672-29-6

11097-69-1

11096-82-5

CAS NO.

877-09-8

2051-24-3

PCB-1232

PCB-1242

PCB-1248

PCB-1254

PCB-1260

Tetrachloro-m-xylene

DCB Decachlorobiphenyl

05/11/2018

0.043

0.043

0.043

0.10

0.10

LIMITS

60-154

65-174

0.22

0.22

0.22

0.22

0.22

Q

NO

ND

ND

ND

ND

%REC

114

109

# **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 Cc	lumn:	ZB-624	(30)	ID: 0	.25(mm)		Heated	Purge	: (Y/N	) <u>Y</u>	
Calibration Start Date: 03/16	/2018 16:48	Calib	oration	End Da	ate: 0	3/16/	2018 19	:22	Calibra	tion 3	ID: <u>33</u>	147	
ANALYTE		RRF			CURVE		COEFFICI	ENT	# MIN RRF	&RSD :		R^2 OR COD	# MIN R^2 OR COD
	LVL 1 LVI LVL 6 LVI		LVL 4	LVL 5	TYPE	B	Ml	M2		1	*RSD	OR COD	OR COD
Carbon tetrachloride	1.7420 1.0	5423	1.7974		1		1.6757		0.1000		20.0		1
Isobutyl alcohol	0.0765 0.0	0.0722 0.0724					0.0759			6.0	20.0		
Benzehe	5.3915 4.8	685 5.9867 315		5.4308			5.5906		0.5000		20.0		
1,2-Dichloroethane	2.0663 1.9	130	2.0409	1.8579			1.9218		0.1000	6.7	20.0	! : }	
n-Heptane Trichlorosthene	2.5795 2.3	273	1.5680	1			1,4568		0.2000		20.0		
Methylcyclohexane	1.4322 1.3	172 1.5505 1367 175 2.8137	1	2.5117			2,6354		0.1000		20.0		
1,2-Dichloropropane	2.5504 2.3	694 672 1.3851		1.3300			1.3439		0.1000		20.0	i	
1,4-Dioxane	+++++ 0.0	075 0.0076	0.0082	0.0080	Ave	1	0.0076			6.1	20.0		
Dibromomethane	0.8297 0.7	070 967 0.8624	0.8838	0.8428	Ave		0.8375		0.1000	3.7	20.0		·····
Bromodichloromethane		023 185 1.6906	1.7463	1.6836	Ave		1.6600		0.2000	5.6	20.0		!
2-Chloroethyl vinyl ether		115 0.8630	0.9109	0.8769	Ave		0.8591			5.4	20.0		
cis-1,3-Dichloropropene	2.0608 1.9	508		2.1424	1		2,1038		0.2000		20.0	1	
4-Methyl-2-pentanone (MIBK)	0.7042 0.7	983	0.8448		F 4		0.7365		0.1000		20.0		
Toluene	1.6792 1.5	630	1.9096		1		1.7854		0.4000		20.0		
trans-1,3-Dichloropropene	0.8604 0.8 0.9529 0.9 0.8554 0.8	177	0.9769	0.9461			0.9165	·	0.1000	5.5	20.0		
Ethyl methacrylate	0.9029 0.8			0.4896	1		0.4961		0.1000		20.0		
Tetrachloroethene	0.4851 0.4			0.7571			0.7698		0.2000		20.0		
1,3-Dichloropropane	0.7472 0.7	033 933 1.0493					1.0104			4.5	20.0		
	0.9912 0.9	356	ł										

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

FORM VI 8260C

## 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

GC Column: ZB-624 (30) VOA ID: 0.25(mm)

Instrument ID: HP5973F

Calib Start Date: 03/16/2018 16:48 Calib End Date: 03/16/2018 19:22

Calibration Date: 04/24/2018 23:05

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	2	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	-8.9	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	and the second s	50.2		0.5	20.0
sec-Butylbenzene	Ave	3,246	3.289		50.7	and the second second second	1.3	20.0
4-Isopropyltoluene	Ave	2.832	2.874		50.7		1.5	20.0
1,3-Dichlorobenzene	Ave	1.593	1.605				0.7	20.0
1,4-Dichlorobenzene	Ave	1.625	1.627	0.5000	a second s		0.2	20.0
n-Butylbenzene	Ave	2.505	2.527	and a second	50.4		0.9	20.0
1,2-Dichlorobenzene	Ave	1.487	1.457	0.4000	49.0	50.0	-2.0	20.0

FORM VII 8260C

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 Calib End Date: 04/12/2018 17:07 ID: 0.53(mm) GC Column: RTX-CLPI Conc. Units: ng/uL Lab File ID: 25 07-092.D MAX CURVE AVE RRF RRF MIN RRF CALC SPIKE &D ANALYTE AMOUNT 8D TYPE AMOUNT 9.0 20.0 0.0646 0.545 0.500 Toxaphene Peak 1 Linl 20.0 0.500 -32.1\* 0.0451 0.340 Linl Toxaphene Peak 2 20.0 0.558 0.500 11.6 Linl 0.0527 Toxaphene Peak 3 20.0 0.595 0.500 19.0 0.0517 Linl Toxaphene Peak 4 0.500 20.0 0.479 -4.2 0.0322 Toxaphene Peak 5 Linl

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 Conc. Units: ng/uL Lab File ID: 12 015 042.D CURVE AVE RRF RRF MIN RRF CALC SPIKE &D MAX ANALYTE TYPE AMOUNT AMOUNT &D 20.0 PCB-1221 Peak 1 0.0433 0.0498 0.575 0.500 14.9 Ave 0.0385 25.5\* 20.0 0.0307 0.627 0.500 PCB-1221 Peak 2 Ave 20.0 PCB-1221 Peak 3 0.0731 0.0844 0.577 0.500 15.4 Ave 20.0 0.0904 0.1083 0.599 0.500 19.8 PCB-1254 Peak 1 Ave 20.0 0.500 19.3 PCB-1254 Peak 2 0.0708 0.0844 0.596 Ave 20.0 0.500 22.3\* PCB-1254 Peak 3 Ave 0.0745 0.0911 0.612 20.0 PCB-1254 Peak 4 0.0467 0.0522 0.559 0.500 11.8 Ave 0.500 19.8 20.0 PCB-1254 Peak 5 0.0636 0.0762 0.599 Ave

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Lab Name: TestAmerica Bu	ab Name: TestAmerica Buffalo			Job No.: 480-134613-1					
SDG No.:									
Lab Sample ID: CCV 480-4	Calib	Calibration Date: 04/30/2018 10:32							
Instrument ID: HP5890-12	Calib	Start Date:	04/05/2	018 10:3	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	۶D	MAX %D	

	TYPE			AMOUNT	AMOUNT		20
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	Linl		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	Linl		0.0678	0.599	0.500	19.7	20.0

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1 SDG No.: Calibration Date: 04/30/2018 10:48 Lab Sample ID: CCV 480-411578/6 Calib Start Date: 04/05/2018 11:35 Instrument ID: HP5890-12 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 MAX MIN RRF CALC SPIKE &D ANALYTE CURVE AVE RRF RRF AMOUNT AMOUNT &D TYPE 46.0\* 20.0 0.0314 0.730 0.500 PCB-1232 Peak 1 0.0458 Ave 20.0 44.0\* 0.0250 0.0360 0.720 0.500 PCB-1232 Peak 2 Ave 20.0 PCB-1232 Peak 3 Lini 0.0197 0.737 0.500 47.4\* 20.0 Ave 0.0322 0.0404 0.627 0.500 25.5\* PCB-1232 Peak 4 27.9\*> 20.0 0.0158 0.0202 0.639 0.500 PCB-1232 Peak 5 Ave 0.500 2.4 20.0 0.0572 0.0585 0.512 PCB-1262 Peak 1 Ave 0.500 20.0 PCB-1262 Peak 2 Linl 0.0552 0.644 28.8 20.0 PCB-1262 Peak 3 Ave 0.0321 0.0413 0.643 0.500 28.7\* 0.500 39.3\* 20.0 PCB-1262 Peak 4 Ave 0.0400 0.0557 0.696 20.0 0.665 0.500 32.9\* PCB-1262 Peak 5 Ave 0.0666 0.0885

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Lab Name: TestAmerica	Job No.: 480-134613-1							
SDG No.:								
Lab Sample ID: CCV 480	Calibra	Calibration Date: 04/30/2018 10:48						
Instrument ID: HP5890-	Calib Start Date: 04/05/2018 11:35							
GC Column: ZB-35	Calib End Date: 04/05/2018 12:06							
Lab File ID: <u>12_015_0</u>	43.D		Conc.	Units: ng/1	ıL			
ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	۴D	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
DCB-1232 Peak 3	Avo	0.0361	0.0446		0.619	0.500	23.7*	20.0

				15 Y 12 Y 12 Y		Contraction of the local division of the loc	
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	Linl		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

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: <u>12_015_04</u>	5.D	Conc. Units: ng/uL						
ANALYTE	CURVE AVE RRF TYPE	RRF MIN RRF CALC SPIKE %D MAX AMOUNT AMOUNT %D						

	TYPE	1		AMOUNT	AMOUNT		*D
PCB-1248 Peak 1	Linl		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

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 Calib Start Date: 04/05/2018 12:37 Instrument ID: HP5890-12 GC Column: ZB-5 ID: 0.53(mm) Calib End Date: 04/05/2018 13:07 Conc. Units: ng/uL Lab File ID: 12\_015\_046.D ANALYTE CURVE AVE RRF RRF MIN RRF CALC SPIKE &D MAX &D TYPE AMOUNT AMOUNT 32.0\* 20.0 PCB-1242 Peak 1 0.0640 0.0844 0.660 0.500 Ave 20.0 0.0446 0.687 0.500 37.4\* PCB-1242 Peak 2 Ave 0.0325 20.0 0.0362 0.0526 0.727 0.500 45.5\* PCB-1242 Peak 3 Ave 20.0 0.0598 0.699 0.500 39.8\* Linl PCB-1242 Peak 4 20.0 0.0551 0.795 0.500 58.9\* Linl PCB-1242 Peak 5 59.6 20.0 0.798 0.500 PCB-1268 Peak 1 Ave 0.1029 0.1643 20.0 0.1830 0.2885 0.788 0.500 57.6\* Ave PCB-1268 Peak 2 52.7\* 0.1115 0.1702 0.763 0.500 20.0

0.0973

0.6130

0.0482

0.3921

PCB-1268 Peak 3

PCB-1268 Peak 4

PCB-1268 Peak 5

Ave

Ave

Ave

05/11/2018

0.500

0.500

1.01

0.782

102.1\*

56.3\*

20.0

20.0

Job No.: 480-134613-1

SDG No.: Calibration Date: 04/30/2018 11:34 Lab Sample ID: CCV 480-411578/10 Instrument ID: HP5890-12 Calib Start Date: 04/05/2018 12:37 Calib End Date: 04/05/2018 13:07 GC Column: ZB-35 ID: 0.53(mm) Conc. Units: ng/uL Lab File ID: 12\_015\_046.D &D MAX RRF MIN RRF CALC SPIKE CURVE AVE RRF ANALYTE 8D AMOUNT AMOUNT TYPE

		and the second sec					
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	Linl		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	Linl		0.5779	0.785	0.500	57.1*	20.0

Lab Name: TestAmerica Buffalo



## **Data Usability Summary Report**

Site:	Hoosick Falls Landfill
Laboratory:	Test America - Buffalo, Amherst, NY
SDG:	480-134613-1
<b>Parameters:</b>	Volatile Organic Compounds (VOCs), Semivolatile Organic Compounds (SVOCs),
	Pesticides, Polychlorinated Biphenyl (PCB) Aroclors
Data Reviewers	: Samir A. Naguib and Kristen Morin/TRC
<b>Peer Reviewer:</b>	Elizabeth Denly/TRC
Date:	May 24, 2018
<b>Revision Date:</b>	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 san	mple: 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.



	-		0/	6D	
CC	Instrument	Compound	Col RTX- CLP-I	Col RTX- CLP-II	Validation Actions
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-N	MW-106 (19-21)	- Criteria me	t	

## 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	C	9	ω <b>D</b>	Martin Astronom
u	Instrument	Compound	Col ZB-5	Col ZB-35	Validation Actions
		PCB-1221 Peak 1		97.9	
		PCB-1221 Peak 2	25.5	28.7	
04/30/18		PCB-1221 Peak 3		21.6	No qualification required; result
@ 10:32		PCB-1254 Peak 1		23.2	were reported from column ZB- which had acceptable average %Ds
	9	PCB-1254 Peak 3	22.3	29.3	winnen nam arrepaiere average /02.0
		PCB-1254 Peak 4		24.7	1
		PCB-1232 Peak 1	46.0	34.1	The nondetect result for PCB-1232
		PCB-1232 Peak 2	44.0	22.8	in sample HFL-MW-106 (19-21
04/30/18 @ 10:48		PCB-1232 Peak 3	47.4	23.7	was qualified as estimated (UJ since average %Ds on both
@ 10.40	HP5890-12	PCB-1232 Peak 4	25.5	145.2	columns were outside the
· · · · ·	. d	PCB-1232 Peak 5	27.9	27.1	acceptance criteria.
04/30/18		PCB-1248 Peak 1	-21.4	-	No qualification was required sinc
@ 11:18		PCB-1248 Peak 4	-24.8		the average %D was within th acceptance criteria on both columns
	1 d	PCB-1242 Peak 1	32.0	_	The nondetect result for PCB-124
	1	PCB-1242 Peak 2	37.4		in sample HFL-MW-106 (19-21
04/30/18 @11:34		PCB-1242 Peak 3	45.5	48.7	was qualified as estimated (UJ since average %Ds on bot
@11.34	1	PCB-1242 Peak 4	39.8	29.2	columns were outside th
÷ ÷.		PCB-1242 Peak 5	58.9	22.5	acceptance criteria.

## 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: <u>480-134613-1</u>		
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-trifluoroethan e	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	0.2
156-59-2	cis-1,2-Dichloroethene	ND		3.6	0.4
10061-01-5	cis-1,3-Dichloropropene	ND		3.6	0.5
110-82-7	Cyclohexane	ND		3.6	0.5
124-48-1	Dibromochloromethane	ND		3.6	0.4
75-71-8	Dichlorodifluoromethane	ND		3.6	0.3
100-41-4	Ethylbenzene	ND		3.6	0.2
98-82-8	Isopropylbenzene	ND	Contraction of the second	3.6	0.5

#### 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: 2B-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	1	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	1	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	1	3.6	0.44
1330-20-7	Xylenes, Total	ND	_	7.2	0.61
123-91-1	1,4-Dioxane	NO	$\mathbf{P}$	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	in percent of the	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: <u>480-134613-1</u>
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 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: <u>HFL-MW-106 (19-21)</u>	Lab Sample ID: 480-134613-1
Matrix: Solid	Lab File ID: <u>U3307407.D</u>
Analysis Method: 8270D	Date Collected: 04/20/2018 11:10
Extract. Method: 35500	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 R.	Ь	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	Ò.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	1.

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

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	NO UT V	0.22	0.043
53469-21-9	PCB-1242	NB III	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	Lab Name: TestAmerica Buffalo			0-13461	13-1				Analy Batch No.: 404437					
SDG No.:														
Instrument ID: HP5973F		GC Cc	lumn:	ZB-624	(30)	ID: 0	.25(mm)		Heated	Purge	: (Y/N	) <u>Y</u>		
Calibration Start Date: 03/16/2018 16:48			oration	End Da	ate: 0	3/16/	2018 19	:22	Calibra	tion 3	ID: <u>33</u>	147		
ANALYTE		RRF			CURVE		COEFFICI	ENT	# MIN RRF	*RSD :		R^2 OR COD	# MIN R^2 OR COD	
	LVL 1 LVI LVL 6 LVI		LVL 4	LVL 5	TYPE	B	Ml	M2		1	*RSD	OR COD	OR COD	
Carbon tetrachloride	1.7420 1.0	5423	1.7974		1		1.6757		0.1000		20.0		1	
Isobutyl alcohol	0.0765 0.0	0.0722 0.0724 0715					0.0759			6.0	20.0			
Benzehe	5.3915 4.8	685 5.9867 315		5.4308			5,5906		0.5000		20.0			
1,2-Dichloroethane	2.0663 1.9	130	2.0409	1.8579			1.9218		0.1000	6.7	20.0	! : }		
n-Heptane Trichlorosthene	2.5795 2.3	273	1.5680	1			1,4568		0.2000		20.0			
Methylcyclohexane	1.4322 1.3	172 1.5505 1367 175 2.8137	1	2.5117			2,6354		0.1000		20.0			
1,2-Dichloropropane	2.5504 2.3	694 672 1.3851		1.3300			1.3439		0.1000		20.0	i		
1,4-Dioxane	+++++ 0.0	075 0.0076	0.0082	0.0080	Ave	1	0.0076			6.1	20.0			
Dibromomethane	0.8297 0.7	070 967 0.8624	0.8838	0.8428	Ave		0.8375		0.1000	3.7	20.0		·····	
Bromodichloromethane		023 185 1.6906	1.7463	1.6836	Ave		1.6600		0.2000	5.6	20.0		!	
2-Chloroethyl vinyl ether		115 0.8630	0.9109	0.8769	Ave		0.8591			5.4	20.0			
cis-1,3-Dichloropropene	2.0608 1.9	508		2.1424	1		2,1038		0.2000		20.0	1		
4-Methyl-2-pentanone (MIBK)	0.7042 0.7	983	0.8448		F 4		0.7365		0.1000		20.0			
Toluene	1.6792 1.5	630	1.9096		1		1.7854		0.4000		20.0			
trans-1,3-Dichloropropene	0.8604 0.8 0.9529 0.9 0.8554 0.8	177	0.9769	0.9461			0.9165	·	0.1000	5.5	20.0			
Ethyl methacrylate	0.9029 0.8			0.4896	1		0.4961		0.1000		20.0			
Tetrachloroethene	0.4851 0.4			0.7571			0.7698		0.2000		20.0			
1,3-Dichloropropane	0.7472 0.7	033 933 1.0493					1.0104			4.5	20.0			
	0.9912 0.9	356	ł											

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

FORM VI 8260C

## 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

GC Column: ZB-624 (30) VOA ID: 0.25(mm)

Instrument ID: HP5973F

Calib Start Date: 03/16/2018 16:48 Calib End Date: 03/16/2018 19:22

Calibration Date: 04/24/2018 23:05

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	2	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	-8.9	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	and the second s	50.2		0.5	20.0
sec-Butylbenzene	Ave	3,246	3.289		50.7	and the second second second	1.3	20.0
4-Isopropyltoluene	Ave	2.832	2.874		50.7		1.5	20.0
1,3-Dichlorobenzene	Ave	1.593	1.605				0.7	20.0
1,4-Dichlorobenzene	Ave	1.625	1.627	0.5000	a second s		0.2	20.0
n-Butylbenzene	Ave	2.505	2.527	and a second	50.4		0.9	20.0
1,2-Dichlorobenzene	Ave	1.487	1.457	0.4000	49.0	50.0	-2.0	20.0

FORM VII 8260C

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 Calib End Date: 04/12/2018 17:07 GC Column: RTX-CLPI ID: 0.53(mm) Conc. Units: ng/uL Lab File ID: 25 07-092.D MAX CURVE AVE RRF RRF MIN RRF CALC SPIKE &D ANALYTE AMOUNT 8D TYPE AMOUNT 9.0 20.0 0.0646 0.545 0.500 Toxaphene Peak 1 Linl 20.0 0.500 -32.1\* Linl 0.0451 0.340 Toxaphene Peak 2 20.0 0.558 0.500 11.6 Linl 0.0527 Toxaphene Peak 3 20.0 0.595 0.500 19.0 0.0517 Linl Toxaphene Peak 4 0.500 20.0 0.479 -4.2 0.0322 Toxaphene Peak 5 Linl

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 Conc. Units: ng/uL Lab File ID: 12 015 042.D CURVE AVE RRF RRF MIN RRF CALC SPIKE &D MAX ANALYTE TYPE AMOUNT AMOUNT &D 20.0 PCB-1221 Peak 1 0.0433 0.0498 0.575 0.500 14.9 Ave 0.0385 25.5\* 20.0 0.0307 0.627 0.500 PCB-1221 Peak 2 Ave 20.0 PCB-1221 Peak 3 0.0731 0.0844 0.577 0.500 15.4 Ave 20.0 0.0904 0.1083 0.599 0.500 19.8 PCB-1254 Peak 1 Ave 20.0 0.500 19.3 PCB-1254 Peak 2 0.0708 0.0844 0.596 Ave 20.0 0.500 22.3\* PCB-1254 Peak 3 Ave 0.0745 0.0911 0.612 20.0 PCB-1254 Peak 4 0.0467 0.0522 0.559 0.500 11.8 Ave 0.500 19.8 20.0 PCB-1254 Peak 5 0.0636 0.0762 0.599 Ave

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Lab Name: TestAmerica Bu	Job N	Job No.: 480-134613-1						
SDG No.:								
Lab Sample ID: CCV 480-4	Calib	Calibration Date: 04/30/2018 10:32 Calib Start Date: 04/05/2018 10:34						
Instrument ID: HP5890-12								
GC Column: ZB-35 ID: 0.53(mm)			Calib	End Date:	04/05/201	8 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	۶D	MAX %D

	TIPE			AHOUNT	AHOORI		010
PCB-1221 Peak 1	Linl		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	Linl		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	Linl		0.0678	0.599	0.500	19.7	20.0

Lab Name: TestAmerica Buffalo Job No.: 480-134613-1 SDG No.: Calibration Date: 04/30/2018 10:48 Lab Sample ID: CCV 480-411578/6 Calib Start Date: 04/05/2018 11:35 Instrument ID: HP5890-12 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 MAX MIN RRF CALC SPIKE &D ANALYTE CURVE AVE RRF RRF TYPE AMOUNT &D AMOUNT 46.0\* 20.0 0.0314 0.730 0.500 PCB-1232 Peak 1 0.0458 Ave 20.0 44.0\* 0.0250 0.0360 0.720 0.500 PCB-1232 Peak 2 Ave 20.0 PCB-1232 Peak 3 Lini 0.0197 0.737 0.500 47.4\* 20.0 Ave 0.0322 0.0404 0.627 0.500 25.5\* PCB-1232 Peak 4 27.9\*> 20.0 0.0158 0.0202 0.639 0.500 PCB-1232 Peak 5 Ave 0.500 2.4 20.0 0.0572 0.0585 0.512 PCB-1262 Peak 1 Ave 0.500 20.0 PCB-1262 Peak 2 Linl 0.0552 0.644 28.8 20.0 PCB-1262 Peak 3 Ave 0.0321 0.0413 0.643 0.500 28.7\* 0.500 39.3\* 20.0 PCB-1262 Peak 4 Ave 0.0400 0.0557 0.696 20.0 0.665 0.500 32.9\* PCB-1262 Peak 5 Ave 0.0666 0.0885

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Lab Name: TestAmerica	ab Name: TestAmerica Buffalo			: 480-1346	513-1			
SDG No.:								
Lab Sample ID: CCV 480	Calibration Date: 04/30/2018 10:48 Calib Start Date: 04/05/2018 11:35							
Instrument ID: HP5890-12								
GC Column: ZB-35	Calib I	End Date:	04/05/201	8 12:06				
Lab File ID: <u>12_015_0</u>	43.D		Conc.	Jnits: ng/	uL			
ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	۴D	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	Avo	0.0361	0.0446		0.619	0.500	23.7*	20.0

				15 Y 12 Y 12 Y		and the second se	
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	Linl		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

Lab Name: TestAmerica I	Buffalo	Job No	Job No.: 480-134613-1							
SDG No.:										
Lab Sample ID: CCV 480.	-411578/8	Calibr	ation Date:	04/30/2	018 11:1	.8				
Instrument ID: HP5890-12			Start Date	: 04/05/2	018 13:3	18				
GC Column: ZB-5 ID: 0.53(mm)			Calib End Date: 04/05/2018 14:09							
Lab File ID: <u>12_015_04</u>	5.D	Conc.	Units: ng/	uL						
ANALYTE	CURVE AVE RRF TYPE	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	₹D	MAX %D			

	TILL			ANOUNT	ALCONT	-	00
PCB-1248 Peak 1	Linl		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

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 Calib Start Date: 04/05/2018 12:37 Instrument ID: HP5890-12 GC Column: ZB-5 ID: 0.53(mm) Calib End Date: 04/05/2018 13:07 Conc. Units: ng/uL Lab File ID: 12\_015\_046.D ANALYTE CURVE AVE RRF RRF MIN RRF CALC SPIKE &D MAX TYPE AMOUNT AMOUNT &D 32.0\* 20.0 PCB-1242 Peak 1 0.0640 0.0844 0.660 0.500 Ave 20.0 0.0446 0.687 0.500 37.4\* PCB-1242 Peak 2 Ave 0.0325 20.0 0.0362 0.0526 0.727 0.500 45.5\* PCB-1242 Peak 3 Ave 20.0 0.0598 0.699 0.500 39.8\* Linl PCB-1242 Peak 4 20.0 0.0551 0.795 0.500 58.9\* Linl PCB-1242 Peak 5 59.6 20.0 0.798 0.500 PCB-1268 Peak 1 Ave 0.1029 0.1643 20.0 0.1830 0.2885 0.788 0.500 57.6\* Ave PCB-1268 Peak 2 52.7\* 0.1115 0.1702 0.763 0.500 20.0 PCB-1268 Peak 3 Ave

0.0973

0.6130

0.0482

0.3921

Ave

Ave

PCB-1268 Peak 4

PCB-1268 Peak 5

05/11/2018

0.500

0.500

1.01

0.782

102.1\*

56.3\*

20.0

20.0

Job No.: 480-134613-1

SDG No.: Calibration Date: 04/30/2018 11:34 Lab Sample ID: CCV 480-411578/10 Calib Start Date: 04/05/2018 12:37 Instrument ID: HP5890-12 Calib End Date: 04/05/2018 13:07 GC Column: ZB-35 ID: 0.53(mm) Lab File ID: 12\_015\_046.D Conc. Units: ng/uL MIN RRF CALC SPIKE &D MAX AVE RRF RRF CURVE ANALYTE

	TYPE			AMOUNT	AMOUNT		*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*	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	Linl		0.5779	0.785	0.500	57.1*	20.0

Lab Name: TestAmerica Buffalo

05/11/2018

0.0
# CTRC

# Data Usability Summary Report

Site:	Hoosick Falls Landfill
Laboratory:	Test America - Buffalo, Amherst, NY
SDGs:	480-137103-1 and 480-137240-1
<b>Parameters:</b>	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

	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
480-421052/47 06/22/18 @ 02:53	Zine	135	70-130	sample at $>10x$ the QL.
Associated sample:	HFL-MH-SI	D		

# **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.

Analyte	ICSA Concentration (mg/L)	Validation Actions
Arsenic	-0.0133	The positive results for arsenic and nickel in sample HFL-MH-WS
Nickel	-0.0014	were qualified as estimated (J-) with a potential low bias.
Barium	0.0009	No qualifications were required since the positive results for barium
Manganese	0.002	and manganese in sample HFL-MH-WS were detected at concentrations greater than 90% of the estimated ICSA interference.
Chromium	0.0012	The positive results for chromium and lead in sample HFL-MH-WS
Lead	0.0083	were qualified as estimated (J+) with a potential high bias.
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.
	Arsenic Nickel Barium Manganese Chromium Lead	AnalyteConcentration (mg/L)Arsenic-0.0133Nickel-0.0014Barium0.0009Manganese0.002Chromium0.0012Lead0.0083



ICSA ID & Date	Analyte	ICSA Concentration (mg/L)	Validation Actions
	Antimony	-0.0040	The nondetect results for antimony and thallium in sample
480-421052/8	Thallium	-0.0038	HFL-MH-SD were qualified as estimated (UJ).
06/21/18 @08:52	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.
	Cadmium	-0.0025	The nondetect result for cadmium in sample HFL-MH-SD was qualified as estimated (UJ).
480-421237/8	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.
06/22/18	Lead	0.0050	The positive results for lead and vanadium in sample HFL-MH-
@10:15	Vanadium	0.0039	SD were qualified as estimated $(J+)$ with a potential high bias.
	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.

## **Blanks**

The following table summarizes the blank contaminants, the concentrations detected, and the resulting validation actions.

Preparation Blank ID	Analyte	Blank Concentration	Validation Actions
	Calcium	8.11 J mg/Kg	
100	Cobalt	0.0505 J mg/Kg	No qualifications were required since the sample results
MB-480- 420624/1-A	Magnesium	1.34 J mg/Kg	for calcium, cobalt, magnesium, manganese, and iron were
+2002+/1-A	Manganese	0.155 J mg/Kg	greater than the 10x the blank results.
	Iron	10.15 mg/Kg	
Associated samp	le: HFL-MH-	SD	A

# **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**

Client Sample	e ID: HFL-MH-WS	Lab Sample	e ID: 480	)-137240-	-1						
Lab Name: T	estAmerica Buffalo		Job No.: 480-137240-1								
SDG ID.:											
Matrix: Wate	Matrix: Water Reporting Basis: WET					1/2018	13:00				
Reporting Bas						12/2018	01:00		· · · · · · · · · · · · · · · · · · ·		
CAS No.	Analyte	Result	RL	MDL	Units	с	٩	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				······	60100		

/440-36-0	Antimony	NU	0.020	0.0068	und l T		I	6010C	1
7440-38-2	Arsenic	0.054	0.015	0.0056	mg/L	7 1	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		l	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	17+	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	17+	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	7-	1	6010C	$\neg$
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	

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Client Sample ID: HFL-WS-114

Lab Sample ID: 480-137240-2

Job No.: 400-137240-1

Lab Name: TestAmerica Buffalo

SDG ID.:

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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	с	Q	DIT	Method
7429-90-5	Aluminum	0.17	0.20	0.060	mg/L	J	1	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		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	1	6010C
7439-92-1	Lead	0.057	0.010	0.0030	mg/L		<u> </u>	1	6010C
7439-95-4	Magnesium	27.7	0.20	0.043	mg/L	·· <del> </del> · · · · ·		1 1	6010C
7439-96-5	Manganese	2.1	0.0030	0.00040	mg/L		<u>+-</u>	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	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		<u> </u>	1	6010C
7440-62-2	Vanadium	ND	0.0050	0.0015	mg/L	1	· · ·	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	· [ · · · · · ·		i 1	7470A

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	с	Q	DIL	Method	
7429-90-5	Aluminum	11700	22.4	9.9	mg/Kg	1	1	1	6010C	=
7440-36-0	Antimony	14Q	33.6	0.90	mg/Kg	95		1	6010C	~
7440-38-2	Arsenic	8.9	4.5	0.90	mg/Kg			1	6010C	1
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	NQ	0.90	0.13	mg/Kg	45		2.	6010C	1
7440-70-2	Calcium	4300	112	7.4	mg/Kg	<u>-</u>	3	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		12	2 -	6010C	-
7440-50-8	Copper	26.7	2.2	0.47	mg/Kg	+	<u> </u>	1	6010C	-
7439-89-6	Iron	169000	44.8	15.7	mg/Kg		1	2,	6010C	-
7439-92-1	Lead	35.0	4.5	1.1	mg/Kg	7+	+ •	2,	6010C	$\overline{V}$
7439-95-4	Magnesium	5560	89.6	4.2	mg/Kg	<del>~ /</del>	R	2.	6010C	-
7439-96-5	Manganese	1010	0.90	0.14	ng/Kg		N.	2.	6010C	1
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	1
7440-23-5	Sodium	89.7	314	29.1	mg/Kg	J		1	6010C	1
7440-28-0	Thallium	- Contraction	13.4	0.67	mg/Kg	42	+	1	6010C	-
7440-62-2	Vanadium	17.9	2.2	0.49	mg/Kg	Ĩ†		2 -	6010C	
7440-66-6	Zinc	273	4.5	1.4	mg/Kg	41	^		6010C	1
7439-97-6	Mercury	0.046	0.041	0.017	mg/Kg		·   ·	1	7471B	-

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Client Sample ID: HFL-MW-1B					Lab Sample ID: 480-137103-1						
Lab Name: T	estAmerica Buffalo	Job No.: 480-137103-1									
SDG ID.:											
Matrix: Wate	2			Date Samp]	Led: 06/0	6/2010	13:10				
Reporting Bas	919: WET			Date Recei	Lved: 06/	08/2018	01:00				
CAS No.	Analyte	Result	RL	MDL	Units	с	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		1	6010C		
7439-95-4	Magnesium	24.3	0.20	0.043	mg/L	<u> </u>		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			6010C		
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L	1 1		1	7470A		

ND

0.00020

0.00012 mg/L

Mercury

7470A

1

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. DIL Analyte Result RL MDL Units С Q Method 7429-90-5 0.20 0.060 1 6010C Aluminum ND mg/L 7440-36-0 Antimony ND 0.020 0.0068 mg/L 1 6010C 7440-38-2 Arsenic ND 0.015 0.0056 6010C mg/L 1 7440-39-3 Barium 0.33 0.0020 0.00070 6010C mg/L 1 7440-41-7 Beryllium 0.0020 0.00030 ND 1 6010C mg/L 0.00050 7440-43-9 0.0020 Cadmium ND mg/L 1 6010C 7440-70-2 Calcium 129 0.50 0.10 mg/L 6010C 1 7440-47-3 Chromium ND 0.0040 0.0010 6010C mg/L 1 7440-48-4 Cobalt 0.0040 0.00063 6010C ND mg/L 1 7440-50-8 Copper ND 0.010 0.0016 mg/L 6010C 1 7439-89-6 2.0 0.050 0.019 Iron mg/L 1 6010C 7439-92-1 Lead 0.010 0.0030 ND mg/L 1 6010C 7439-95-4 35.7 0.20 Magnesium 0.043 mg/L 1 6010C 7439-96-5 Manganese 0.69 0.0030 0.00040 mg/L 6010C 1

0.010

0.50

0.025

1.0

0.0060

0.020

0.0050

0.010

0.00020

0.0013

0.0087

0.0017

0.32

0.010

0.0015

0.0015

0.00012

0.10

mq/L

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

ND

ND

ND

ND

ND

ND

ND

29.8

1.3

7440-02-0

7440-09-7

7782-49-2

7440-22-4

7440-23-5

7440-28-0

7440-62-2

7440-66-6

7439-97-6

Nickel

Potassium

Selenium

Silver

Sodium

Zinc

Thallium

Vanadium

Mercury

1

1

1

1

1

1

1

1

1

6010C

6010C

6010C

601ÖC

6010C

6010C

6010C

6010C

7470A

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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	с	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	<u> </u>	1	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		1	6010C
7439-92-1	Lead	ND	0.010	0.0030	mg/L	1		1	6010C
7439-95-4	Magnesium	51.3	0.20	0.043	mg/L	<u>†</u>		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	<u> </u>		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	· · · · ·	<u> </u>	6010C
7440-66-6	Zinc	0.0028	0.010	0.0015	mg/L	J			6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

Client Sample	e ID: HFL-MW-101			Lab Sample	ID: 400	-137103-	- 4	н 1 <sup>4</sup> •				
Lab Name: T	estAmerica Buffalo			Job No.; 480-137103-1								
SDG ID.:												
Matrix: Wate	er			Date Sampl	.ed: 06/0	5/2018	16:10		· ·			
Reporting Bas	eis: WET		Date Recei	ved: 06/	08/2018	01:00						
CAS No.	Analyte	Result	RL	MDL	Units	с	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	1	1	6010C			
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L	-	1 1	1	6010C			
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	6010C			

1440-41-1	Beryllium	ND	0.0020	0.00030	jπg/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 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

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: WIT Date Received: 06/08/2018 01:00 CAS No. Analyte Result RL MDL Units С Q DÍL Method 7429-90-5 Aluminum 3.7 0.20 0.060 mg/L 1 6010C 7440-36-0 Antimony 0.020 0.0068 ND mg/L 1 6010C 7440-38-2 Arsenic 0.0077 0.015 0.0056 mg/L 6010C J 1 7440-39-3 Barium 0.0020 0.060 0.00070 mg/L 1 6010C 7440-41-7 Beryllium 0.0020 ND 0.00030 mg/L 6010C 1 Cadmium 7440-43-9 0.0020 0.00050 ND mg/L 6010C 1 7440-70-2 Calcium 48.3 0.50 0.10 mq/L 6010C 1 7440-47-3 Chromium 0.0063 0.0040 0.0010 mg/L 6010C 1 7440-48-4 Cobalt 0.0027 0.0040 0.00063 6010C mg/L J 1 7440-50-8 0.0077 0.010 Copper 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 т. 1 6010C

0.20

0.0030

0.010

0.50

0.025

0.0060

0.020

0.0050

0.010

0.00020

1.0

0.043

0.00040

0.0013

0.0087

0.0017

0.32

0.010

0.0015

0.0015

0.00012

0,10

mg/L

J

15.0

1.7

2.4

ND

ND

ND

ND

15.4

0.0057

0.015

0.0047

7439-95-4

7439-96-5

7440-02-0

7440-09-7

7782-49-2

7440-22-4

7440-23-5

7440-28-0

7440-62-2

7440-66-6

7439-97-6

Magnesium

Manganese

Potassium

Selenium

Nickel

Silver

Sodium

Zinc

Thallium

Vanadium

Mercury

1 6010C

1 6010C

1 6010C

1 6010C

1 6010C

6010C

6010C

6010C

6010C

6010C

7470A

1

1

1

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1

1

Client Sample	Client Sample ID: HFL-MW-101C					Lab Sample ID: 480-137103-6							
Lab Name: Te	estAmerica Buffalo			Job No.:	480-13710	3-1							
SDG ID.:													
Matrix: Wate	r .			Date Sampl	led: 06/0	6/2018	16:25						
Reporting Bas	eis: WET			Date Received: 06/08/2018 01:00									
CAS No.	Analyte	Result	RL	MDL	Units	с	٩	DIL	Method				
7429-90-5	Aluminum	11.4	0.20	0.060	mg/L	1		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		<u>+</u>	1	6010C				
7440-47-3	Chromium	0.026	0.0040	0.0010	mg/L	1		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		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		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		1	6010C				
7440-09-7	Potassium	5.5	0.50	0.10	mg/L	1		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				

0.0050

0.00020

0.010

0.0015

0.0015

0.00012

mg/L

mg/L

mg/L

0.019

0.067

ND

7440-62-2

7440-66-6

7439-97-6

Vanadium

Mercury

Zinc

06/30/2018

1

1

1

6010C

6010C

7470A

Client Sample ID: HFL-MW-102

Lab Sample ID: 480-137103-7

Job No.: 480-137103-1

Lab Name: TestAmerica Buffalo

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				1			
		, neourc	RL	MDL	Units	с	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		. 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		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		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	<u> </u>		1	6010C
7439-96-5	Manganese	0.77	0.0030	0.00040	mg/L	1		1	6010C
7440-02-0	Nickel	0.010	0.010	0.0013	mg/L	1		1	6010C
7440-09-7	Potassium	4.8	0.50	0.10	mg/L	1		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	·	1	6010C
7440-23-5	Sodium	21.9	1.0	0.32	mg/L	1	i	1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L	1		1.	6010C
7440-62-2	Vanadium	0.010	0.0050	0.0015	mg/L	1		1	6010C
7440-66-6	Zinc	0.034	0.010	0.0015	mg/L	1	1	1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L	· ·		1	7470A

FORM IA-IN

06/30/2018

Client Sample ID: HFL-MW-103

Lab Name: TestAmerica Buffalo

Lab Sample ID: 480-137103-8

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	٩	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		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			<u> </u>	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				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		- <u>i</u> .	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

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	с	Q	DIL	Method
7429-90-5	Aluminum	0.47	0.20	0.060	mg/L	1		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		1	6010C
7440-48-4	Cobalt	ND	0.0040	0.00063	mg/L	<u> </u>	<u> </u>	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				6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L	1		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	ŇD	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		1	7470A

#### 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 С 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 6010C 1 7440-38-2 Arsenic ND 0.015 0.0056 mg/L 1 6010C 7440-39-3 Barium 0.0020 0.00070 0.039 mg/L 1 6010C 7440-41-7 Beryllium ND 0.0020 0.00030 mg/L 6010C 1 7440-43-9 Cadmium ND 0.0020 0.00050 mg/L 6010C 1 7440-70-2 Calcium 0.50 83.0 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 6010C 1 7439-89-6 Iron 0.56 0.050 0.019 6010C mg/L 1 7439-92-1 Lead 0.010 ND 0.0030 6010C mg/L 1 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 6010C 1 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 0.025 ND 0.0087 mg/L 1 6010C 7440-22-4 Silver 0.0060 ND 0.0017 mg/L 6010C 1 7440-23-5 Sodium 19.8 1.0 0.32 mg/L 6010C 1 7440-28-0 Thallium ND 0.020 0.010 6010C mg/L 1 7440-62-2 Vanadium ND 0.0050 0.0015 mg/L 6010C 1 7440-66-6 Zinc 0.0016 0.010 0.0015 mg/L J 6010C 1 7439-97-6 Mercury ND 0.00020 0.00012 7470A mg/L 1

06/30/2018

Client Samp	le ID:	HFL-MW-105	Lab	Sample	ID:	480-137103-11
Lab Name:	TestAme	rica Buffalo	Job	No.:	480-13	7103-1

Date Sampled: 06/05/2018 15:30

Reporting Basis: WET

Matrix: Water

SDG ID.:

Date Received: 06/08/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	с	٥	DIL	Method
7429-90-5	Aluminum	ND	0.20	0.060	mg/L	1		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		1	6010C
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L		1	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		1	6010C
7440-02-0	Nickel	ND	0.010	0.0013	mg/L	1		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	ng/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

Client Sample ID: HFL-MW-105C

Lab Sample ID: 400-137103-12

Lab Name: TestAmerica Buffalo

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Job No.: 480-137103-1

SDG ID.:

Matrix: Water

Reporting Basis: WET

Date Sampled: 06/05/2018 16:45

Date Received: 06/08/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	c	à	DIL	Method
7429-90-5	Aluminum	12.5	0.20	0.060	mg/L		1	1	6010C
7440-36-0	Antimony	ND	0.020	0.006B	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		1	6010Č
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		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	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

Client Sample	Lab Sample ID: 480-137103-13											
Lab Name: T	estAmerica Buffalo			Job No.:	480-13710	3-1						
SDG ID.:												
Matrix: Wate	۶Ľ			Date Sampled: 06/05/2018 12:10								
Reporting Bas	319: 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		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	<b></b>	1	6010C			
7440-22-4	Silver	ND	0.0060	0.0017	mg/L	1		1	6010C			
7440-23-5	Sodium	10.6	1.0	0.32	mg/L	1	İ	1	6010C			

0.020

0.010

0.0050

0.00020

0.010

0.0015

0.0015

0.00012 mg/L

mg/L

mg/L

mg/L

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ND

ND

ND

0.0017

7440-28-0

7440-62-2

7440-66-6

7439-97-6

Thallium

Vanadium

Mercury

Zinc

1 6010C

6010C

6010C

7470A

1

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#### Lab Name: TestAmerica Buffalo Job No.: 480-137103-1 SDG ID.: Matrix: Water Date Sampled: 06/06/2018 09:40 Reporting Basis: WET 06/08/2018 01:00 Date Received: CAS No. Analyte Result RL MDL Units ¢ Q DIL Method 7429-90-5 0.20 0.060 Aluminum ND mg/L 1 6010C 7440-36-0 Antimony ND 0.020 0.0068 mg/L 6010C 1 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. 7440-41-7 Beryllium 0.0020 ND 1 0.00030 mg/L

6010C 6010C 7440-43-9 Cadmium ND 0.0020 0.00050 mg/L 1 6010C 7440-70-2 Calcium 43.0 0.50 0.10 6010C mg/L 1 7440-47-3 Chromium ND 0.0040 0.0010 6010C mg/L 1 7440-48-4 Cobalt ND 0.0040 0.00063 6010C mg/L 1 7440-50-8 Copper ND 0.010 0.0016 mg/L 1 6010C 7439-89-6 Iron 0.74 0.050 0.019 6010C mg/L 1 7439-92-1 Lead ND 0.010 0.0030 mg/L 6010C ī 7439-95-4 Magnesium 22.7 0.20 0,043 mg/L 6010C 1 7439-96-5 0.17 0.0030 Manganese 0.00040 mg/L 1 6010C 7440-02-0 Nickel ND 0.010 0.0013 mg/L 6010C 1 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 0.0050 ND 0.0015 mg/L 6010C 1 7440-66-6 Zinc ND 0.010 0.0015 mg/L 6010C 1 7439-97-6 Mercury ND 0.00020 0.00012 mg/L 7470A 1

Lab Sample ID: 480-137103-14

Client Sample ID: HFL-MW-106C

Client Samp	ple ID:	HFL-PW-1	Lab	Sample	ID:	400-137103-15
Lab Name:	TestAmer	rica Buffalo	Job	No.:	480-13	7103-1

SDG ID.:

Matrix: Water

Date Sampled: 06/06/2018 17:15

Reporting Basis: WET

Date Received: 06/08/2018 01:00

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CAS No.	Analyte	Result	RL	MOL	Units	с	Q	DIL	Method
7429-90-5	Aluminum	ND	0.20	0.060	mg/L	<u> </u>		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		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		1	6010C
7439-89-6	Iron	35.2	0.050	0.019	mg/L	1		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		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		1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L	1		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	+	i		6010C
7440-62-2	Vanadium	ND	0.0050	0.0015	mg/L	1		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

	CCVL 480-421052/35 06/22/2018 02:07			CCVL 480-421052/47 06/22/2018 02:53								
Analyte	Found	с	True	8R	Found	с	True	&R	Found	с	True	%R
Aluminum	0.162	JJ	0.200	81	0.168	J	0.200	84				
Antimony	0.0184	J	0.0200	92	0.0178	J	0.0200	89		1		
Arsenic	0.0118	J	0.0150	78	0.0147	J	0.0150	98		1 1		
Barium	0.00204	1	0.00200	102	0.00209	1.	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	1	0.00400	102				-
Copper	0.0100		0.0100	100	0.0101		0.0100	101				1
Iron	0.0509	1	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				1
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		+ +		$\dot{-}$
Silver	0.00581	J	0.00600	97	0.00571	J	0.00600	95		<u>†</u> †-	·····	
Sodium	0.976	J	1.00	98	0.975	J	1.00	97				1
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		<u> </u>	· · · · · · · · · · · · · · · · · · ·	<u> </u>
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.

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06/29/2018

#### 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: 11061418A-8.asc	ICS Source: MEI_07_ICSA 00111
Concentration Units: mg/L	

True Found Percent Analyte Solution A Solution A 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 Вогоп -0.0009 Lithium 0.0051 Molybdenum 0.0011 Silicon -0.0045 Sulfur 0.102 Tin-0.0004Titanium -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/I.	

	True	Found	
			Percent
Analyte	Solution A	Solution A	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	- <u> </u>
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	<u></u>

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	

	True	Found	
			Percent
Analyte	Solution A	Solution A	Recovery
Cadmium	•	0.0025	
Chromium		0.0014	······
Cobalt		(-0.0018)	
Iron	200	189	95
Lead		0.0050	
Magnesium	500	513	103
Manganese		(0.000)	
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

Instrument Code: ICAP1

Lab Sample ID: MB 480-420624/1-A

Batch No.: 421052

CAS No.	Analyte	Concentration	С	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	3)		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	ュノ	· ·	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

FORM III-IN

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