

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pittsburgh

301 Alpha Drive

RIDC Park

Pittsburgh, PA 15238

Tel: (412)963-7058

TestAmerica Job ID: 180-84958-1

Client Project/Site: CUF\_BS\_20181213\_2A

For:

Environmental Standards Inc.

1140 Valley Forge Road

PO BOX 810

Valley Forge, Pennsylvania 19482-0810

Attn: Jennifer N. Gable



Authorized for release by:

1/4/2019 8:03:59 AM

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

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

PA Lab ID: 02-00416

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# Case Narrative

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

**Job ID: 180-84958-1**

**Laboratory: TestAmerica Pittsburgh**

## Narrative

### Job Narrative 180-84958-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 12/15/2018 1:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3° C.

#### Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC). The container labels list CUF-BS-CUF-1001 ALT-10/13.5-20181212, while the COC lists CUF-BS-CUF-1001 ALT-13.5/15.0-20181213. The client confirmed that the chain ID was correct.

#### GC Semi VOA

Method(s) 9056A: The continuing calibration blank (CCB) for analytical batch 180-265932 contained Sulfate above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

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

#### Metals

Method(s) 3005A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 180-266943.

Method(s) 6020A, 6020B: The following samples were diluted due to the nature of the sample matrix: (180-84907-A-18-A ^10), (180-84907-A-18-B MS ^10), (180-84907-A-18-C MSD ^10), (180-84907-A-18-A PDS ^10) and (180-84907-A-18-A SD ^50). Elevated reporting limits (RLs) are provided.

Method(s) 7470A: The laboratory control sample (LCS) for preparation batch 180-265872 and analytical batch 180-266063 recovered outside control limits for the following analytes: Mercury. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

#### General Chemistry

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

# Definitions/Glossary

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

## Qualifiers

### HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

### Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F2	MS/MSD RPD exceeds control limits
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
F4	MS/MSD RPD exceeds control limits due to sample size difference.

### General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

## Glossary

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

# Accreditation/Certification Summary

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

## Laboratory: TestAmerica Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-19
California	State Program	9	2891	04-30-19
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-19
Illinois	NELAP	5	200005	06-30-19
Kansas	NELAP	7	E-10350	01-31-19
Louisiana	NELAP	6	04041	06-30-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-19
New Jersey	NELAP	2	PA005	06-30-19
New York	NELAP	2	11182	03-31-19
North Carolina (WW/SW)	State Program	4	434	12-31-19
Oregon	NELAP	10	PA-2151	01-28-19
Pennsylvania	NELAP	3	02-00416	04-30-19
South Carolina	State Program	4	89014	04-30-19
Texas	NELAP	6	T104704528-15-2	03-31-19
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-19
Virginia	NELAP	3	460189	09-14-19
West Virginia DEP	State Program	3	142	01-31-19
Wisconsin	State Program	5	998027800	08-31-19

## Laboratory: TestAmerica Nashville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-19
Alaska (UST)	State Program	10	UST-087	06-30-19
Arizona	State Program	9	AZ0473	05-05-19
Arkansas DEQ	State Program	6	88-0737	04-25-19
California	State Program	9	2938	10-31-18 *
Connecticut	State Program	1	PH-0220	12-31-19
Florida	NELAP	4	E87358	06-30-19
Georgia	State Program	4	NA: NELAP & A2LA	12-31-19
Illinois	NELAP	5	200010	12-09-18 *
Iowa	State Program	7	131	04-01-20
Kansas	NELAP	7	E-10229	10-31-19
Kentucky (UST)	State Program	4	19	06-30-19
Kentucky (WW)	State Program	4	90038	12-31-19
Louisiana	NELAP	6	30613	06-30-19
Maine	State Program	1	TN00032	11-03-19
Maryland	State Program	3	316	03-31-19
Massachusetts	State Program	1	M-TN032	06-30-19
Minnesota	NELAP	5	047-999-345	12-31-19
Mississippi	State Program	4	N/A	06-30-19
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-19
New Hampshire	NELAP	1	2963	10-09-19
New Jersey	NELAP	2	TN965	06-30-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pittsburgh

# Accreditation/Certification Summary

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

## Laboratory: TestAmerica Nashville (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11342	03-31-19
North Carolina (WW/SW)	State Program	4	387	12-31-19
North Dakota	State Program	8	R-146	06-30-19
Ohio VAP	State Program	5	CL0033	07-06-19
Oklahoma	State Program	6	9412	08-31-19
Oregon	NELAP	10	TN200001	04-26-19
Pennsylvania	NELAP	3	68-00585	07-31-19
Rhode Island	State Program	1	LAO00268	12-30-19
South Carolina	State Program	4	84009 (001)	02-28-19
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-19
USDA	Federal		P330-13-00306	12-01-19
Utah	NELAP	8	TN00032	07-31-19
Virginia	NELAP	3	460152	06-14-19
Washington	State Program	10	C789	07-19-19
West Virginia DEP	State Program	3	219	02-28-19
Wisconsin	State Program	5	998020430	08-31-19
Wyoming (UST)	A2LA	8	453.07	12-31-19

# Sample Summary

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-84958-1	CUF-BS-CUF-1001 ALT- 13.5/15.0-20181212	Solid	12/12/18 16:09	12/15/18 13:30
180-84958-2	CUF-BS-CUF-1001 ALT- 19.5/21.0-20181213	Solid	12/13/18 07:55	12/15/18 13:30
180-84958-3	CUF-BS-FB-16-20181213	Water	12/13/18 16:30	12/15/18 13:30

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# Method Summary

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

Method	Method Description	Protocol	Laboratory
EPA 9056A	Anions, Ion Chromatography	SW846	TAL PIT
EPA 6020A	Metals (ICP/MS)	SW846	TAL PIT
EPA 7470A	Mercury (CVAA)	SW846	TAL PIT
EPA 7471B	Mercury (CVAA)	SW846	TAL PIT
2540G	SM 2540G	SM22	TAL PIT
EPA 9045D	pH	SW846	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
3050B	Preparation, Metals	SW846	TAL PIT
7470A	Preparation, Mercury	SW846	TAL PIT
7471B	Preparation, Mercury	SW846	TAL PIT
DI Leach	Deionized Water Leaching Procedure	ASTM	TAL PIT

#### Protocol References:

ASTM = ASTM International

SM22 = Standard Methods For The Examination Of Water And Wastewater, 22nd Edition

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

#### Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

# Lab Chronicle

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

**Client Sample ID: CUF-BS-CUF-1001 ALT- 13.5/15.0-20181212**

**Lab Sample ID: 180-84958-1**

**Date Collected: 12/12/18 16:09**

**Matrix: Solid**

**Date Received: 12/15/18 13:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			265839	12/18/18 08:55	AVS	TAL PIT
		Instrument ID: NOEQUIP								
Total/NA	Analysis	EPA 9045D		1	19.55 g	20 mL	265858	12/18/18 10:20	AVS	TAL PIT
		Instrument ID: NOEQUIP								

**Client Sample ID: CUF-BS-CUF-1001 ALT- 13.5/15.0-20181212**

**Lab Sample ID: 180-84958-1**

**Date Collected: 12/12/18 16:09**

**Matrix: Solid**

**Date Received: 12/15/18 13:30**

**Percent Solids: 81.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			10.6999 g	100 mL	266234	12/21/18 07:16	MJH	TAL PIT
Soluble	Analysis	EPA 9056A		1			266206	12/21/18 14:13	MJH	TAL PIT
		Instrument ID: CHIC2100A								
Total/NA	Prep	3050B			0.99 g	100 mL	266051	12/19/18 15:14	NAM	TAL PIT
Total/NA	Analysis	EPA 6020A		1	1.0 mL	1.0 mL	266262	12/20/18 14:12	RJR	TAL PIT
		Instrument ID: X								
Total/NA	Prep	7471B			0.57 g	100 mL	266507	12/26/18 12:13	KA	TAL PIT
Total/NA	Analysis	EPA 7471B		1			266552	12/26/18 20:23	KA	TAL PIT
		Instrument ID: HGY								

**Client Sample ID: CUF-BS-CUF-1001 ALT- 19.5/21.0-20181213**

**Lab Sample ID: 180-84958-2**

**Date Collected: 12/13/18 07:55**

**Matrix: Solid**

**Date Received: 12/15/18 13:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			265839	12/18/18 08:55	AVS	TAL PIT
		Instrument ID: NOEQUIP								
Total/NA	Analysis	EPA 9045D		1	19.72 g	20 mL	265858	12/18/18 10:20	AVS	TAL PIT
		Instrument ID: NOEQUIP								

**Client Sample ID: CUF-BS-CUF-1001 ALT- 19.5/21.0-20181213**

**Lab Sample ID: 180-84958-2**

**Date Collected: 12/13/18 07:55**

**Matrix: Solid**

**Date Received: 12/15/18 13:30**

**Percent Solids: 80.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			10.7854 g	100 mL	266234	12/21/18 07:16	MJH	TAL PIT
Soluble	Analysis	EPA 9056A		1			266206	12/21/18 14:30	MJH	TAL PIT
		Instrument ID: CHIC2100A								
Total/NA	Prep	3050B			1.01 g	100 mL	266051	12/19/18 15:14	NAM	TAL PIT
Total/NA	Analysis	EPA 6020A		1	1.0 mL	1.0 mL	266262	12/20/18 14:17	RJR	TAL PIT
		Instrument ID: X								
Total/NA	Prep	7471B			0.65 g	100 mL	266507	12/26/18 12:13	KA	TAL PIT

TestAmerica Pittsburgh

# Lab Chronicle

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

**Client Sample ID: CUF-BS-CUF-1001 ALT- 19.5/21.0-20181213**

**Lab Sample ID: 180-84958-2**

**Date Collected: 12/13/18 07:55**

**Matrix: Solid**

**Date Received: 12/15/18 13:30**

**Percent Solids: 80.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 7471B		1			266552	12/26/18 20:25	KA	TAL PIT
Instrument ID: HGY										

**Client Sample ID: CUF-BS-FB-16-20181213**

**Lab Sample ID: 180-84958-3**

**Date Collected: 12/13/18 16:30**

**Matrix: Water**

**Date Received: 12/15/18 13:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			265932	12/19/18 08:58	MJH	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	265880	12/18/18 12:17	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020A		1			266093	12/19/18 21:12	RSK	TAL PIT
Instrument ID: A										
Total Recoverable	Prep	3005A			50.0 mL	50.0 mL	266943	01/03/19 08:10	RSK	TAL PIT
Total Recoverable	Analysis	EPA 6020A		1			267011	01/03/19 13:14	RJR	TAL PIT
Instrument ID: X										
Total/NA	Prep	7470A			50 mL	50 mL	265872	12/18/18 11:31	KA	TAL PIT
Total/NA	Analysis	EPA 7470A		1			266063	12/19/18 18:03	KA	TAL PIT
Instrument ID: HGZ										

**Laboratory References:**

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

**Analyst References:**

Lab: TAL PIT

Batch Type: Leach

MJH = Matthew Hartman

Batch Type: Prep

KA = Kayla Kalamasz

NAM = Nicole Marfisi

RSK = Robert Kurtz

Batch Type: Analysis

AVS = Abbey Smith

KA = Kayla Kalamasz

MJH = Matthew Hartman

RJR = Ron Rosenbaum

RSK = Robert Kurtz

# Client Sample Results

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

**Client Sample ID: CUF-BS-CUF-1001 ALT- 13.5/15.0-20181212**

**Lab Sample ID: 180-84958-1**

**Date Collected: 12/12/18 16:09**

**Matrix: Solid**

**Date Received: 12/15/18 13:30**

**Percent Solids: 81.1**

**Method: EPA 9056A - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.15	J	11.5	4.47	mg/Kg	☼		12/21/18 14:13	1
Fluoride	2.17		1.15	0.783	mg/Kg	☼		12/21/18 14:13	1
Sulfate	24.8		11.5	7.82	mg/Kg	☼		12/21/18 14:13	1

**Method: EPA 6020A - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.291		0.249	0.0772	mg/Kg	☼	12/19/18 15:14	12/20/18 14:12	1
Arsenic	6.34		0.124	0.0324	mg/Kg	☼	12/19/18 15:14	12/20/18 14:12	1
Barium	72.4		1.24	0.0710	mg/Kg	☼	12/19/18 15:14	12/20/18 14:12	1
Beryllium	0.612		0.124	0.00934	mg/Kg	☼	12/19/18 15:14	12/20/18 14:12	1
Boron	2.19	J	9.96	0.950	mg/Kg	☼	12/19/18 15:14	12/20/18 14:12	1
Cadmium	0.0568	J	0.124	0.0212	mg/Kg	☼	12/19/18 15:14	12/20/18 14:12	1
Calcium	2100		62.2	11.1	mg/Kg	☼	12/19/18 15:14	12/20/18 14:12	1
Chromium	17.4		0.249	0.0822	mg/Kg	☼	12/19/18 15:14	12/20/18 14:12	1
Cobalt	11.8		0.0622	0.0103	mg/Kg	☼	12/19/18 15:14	12/20/18 14:12	1
Copper	10.5		0.249	0.141	mg/Kg	☼	12/19/18 15:14	12/20/18 14:12	1
Lead	15.0		0.124	0.0436	mg/Kg	☼	12/19/18 15:14	12/20/18 14:12	1
Lithium	7.09		0.622	0.344	mg/Kg	☼	12/19/18 15:14	12/20/18 14:12	1
Molybdenum	0.917		0.622	0.0772	mg/Kg	☼	12/19/18 15:14	12/20/18 14:12	1
Nickel	12.2		0.124	0.0759	mg/Kg	☼	12/19/18 15:14	12/20/18 14:12	1
Selenium	0.482	J	0.622	0.0747	mg/Kg	☼	12/19/18 15:14	12/20/18 14:12	1
Silver	0.0259	J	0.124	0.0174	mg/Kg	☼	12/19/18 15:14	12/20/18 14:12	1
Thallium	0.224		0.124	0.0162	mg/Kg	☼	12/19/18 15:14	12/20/18 14:12	1
Vanadium	32.7		0.124	0.0759	mg/Kg	☼	12/19/18 15:14	12/20/18 14:12	1
Zinc	32.5		0.622	0.416	mg/Kg	☼	12/19/18 15:14	12/20/18 14:12	1

**Method: EPA 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0428	0.0186	mg/Kg	☼	12/26/18 12:13	12/26/18 20:23	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.9		0.1	0.1	%			12/18/18 08:55	1
Percent Solids	81.1		0.1	0.1	%			12/18/18 08:55	1
pH	7.5	HF	0.1	0.1	SU			12/18/18 10:20	1

# Client Sample Results

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

**Client Sample ID: CUF-BS-CUF-1001 ALT- 19.5/21.0-20181213**

**Lab Sample ID: 180-84958-2**

Date Collected: 12/13/18 07:55

Matrix: Solid

Date Received: 12/15/18 13:30

Percent Solids: 80.3

### Method: EPA 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		11.5	4.48	mg/Kg	☼		12/21/18 14:30	1
<b>Fluoride</b>	<b>3.69</b>		1.15	0.785	mg/Kg	☼		12/21/18 14:30	1
<b>Sulfate</b>	<b>50.4</b>		11.5	7.84	mg/Kg	☼		12/21/18 14:30	1

### Method: EPA 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.197</b>	J	0.247	0.0765	mg/Kg	☼	12/19/18 15:14	12/20/18 14:17	1
<b>Arsenic</b>	<b>6.41</b>		0.123	0.0321	mg/Kg	☼	12/19/18 15:14	12/20/18 14:17	1
<b>Barium</b>	<b>143</b>		1.23	0.0703	mg/Kg	☼	12/19/18 15:14	12/20/18 14:17	1
<b>Beryllium</b>	<b>1.46</b>		0.123	0.00925	mg/Kg	☼	12/19/18 15:14	12/20/18 14:17	1
<b>Boron</b>	<b>3.83</b>	J	9.87	0.941	mg/Kg	☼	12/19/18 15:14	12/20/18 14:17	1
<b>Cadmium</b>	<b>0.255</b>		0.123	0.0210	mg/Kg	☼	12/19/18 15:14	12/20/18 14:17	1
<b>Calcium</b>	<b>16100</b>		61.7	11.0	mg/Kg	☼	12/19/18 15:14	12/20/18 14:17	1
<b>Chromium</b>	<b>17.7</b>		0.247	0.0814	mg/Kg	☼	12/19/18 15:14	12/20/18 14:17	1
<b>Cobalt</b>	<b>12.1</b>		0.0617	0.0102	mg/Kg	☼	12/19/18 15:14	12/20/18 14:17	1
<b>Copper</b>	<b>20.6</b>		0.247	0.139	mg/Kg	☼	12/19/18 15:14	12/20/18 14:17	1
<b>Lead</b>	<b>15.0</b>		0.123	0.0432	mg/Kg	☼	12/19/18 15:14	12/20/18 14:17	1
<b>Lithium</b>	<b>14.5</b>		0.617	0.340	mg/Kg	☼	12/19/18 15:14	12/20/18 14:17	1
<b>Molybdenum</b>	<b>0.543</b>	J	0.617	0.0765	mg/Kg	☼	12/19/18 15:14	12/20/18 14:17	1
<b>Nickel</b>	<b>32.6</b>		0.123	0.0752	mg/Kg	☼	12/19/18 15:14	12/20/18 14:17	1
<b>Selenium</b>	<b>0.577</b>	J	0.617	0.0740	mg/Kg	☼	12/19/18 15:14	12/20/18 14:17	1
<b>Silver</b>	<b>0.0270</b>	J	0.123	0.0173	mg/Kg	☼	12/19/18 15:14	12/20/18 14:17	1
<b>Thallium</b>	<b>0.352</b>		0.123	0.0160	mg/Kg	☼	12/19/18 15:14	12/20/18 14:17	1
<b>Vanadium</b>	<b>25.1</b>		0.123	0.0752	mg/Kg	☼	12/19/18 15:14	12/20/18 14:17	1
<b>Zinc</b>	<b>55.7</b>		0.617	0.412	mg/Kg	☼	12/19/18 15:14	12/20/18 14:17	1

### Method: EPA 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.0774</b>		0.0379	0.0164	mg/Kg	☼	12/26/18 12:13	12/26/18 20:25	1

### General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Percent Moisture</b>	<b>19.7</b>		0.1	0.1	%			12/18/18 08:55	1
<b>Percent Solids</b>	<b>80.3</b>		0.1	0.1	%			12/18/18 08:55	1
<b>pH</b>	<b>7.8</b>	HF	0.1	0.1	SU			12/18/18 10:20	1

# Client Sample Results

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

**Client Sample ID: CUF-BS-FB-16-20181213**

**Lab Sample ID: 180-84958-3**

**Date Collected: 12/13/18 16:30**

**Matrix: Water**

**Date Received: 12/15/18 13:30**

**Method: EPA 9056A - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.00	0.715	mg/L			12/19/18 08:58	1
Fluoride	ND		0.100	0.0263	mg/L			12/19/18 08:58	1
Sulfate	ND		1.00	0.380	mg/L			12/19/18 08:58	1

**Method: EPA 6020A - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00200	0.00112	mg/L		12/18/18 12:17	12/19/18 21:12	1
Arsenic	ND		0.00100	0.000323	mg/L		12/18/18 12:17	12/19/18 21:12	1
Barium	ND		0.0100	0.000373	mg/L		12/18/18 12:17	12/19/18 21:12	1
Beryllium	ND		0.00100	0.0000570	mg/L		12/18/18 12:17	12/19/18 21:12	1
Boron	ND		0.0800	0.0303	mg/L		12/18/18 12:17	12/19/18 21:12	1
Cadmium	ND		0.00100	0.000125	mg/L		12/18/18 12:17	12/19/18 21:12	1
Calcium	ND		0.500	0.116	mg/L		12/18/18 12:17	12/19/18 21:12	1
<b>Chromium</b>	<b>0.00136</b>	<b>J</b>	0.00200	0.000631	mg/L		12/18/18 12:17	12/19/18 21:12	1
Cobalt	ND		0.000500	0.0000750	mg/L		12/18/18 12:17	12/19/18 21:12	1
Copper	ND		0.00200	0.00130	mg/L		12/18/18 12:17	12/19/18 21:12	1
Lead	ND		0.00100	0.0000940	mg/L		12/18/18 12:17	12/19/18 21:12	1
Lithium	ND		0.00500	0.00256	mg/L		01/03/19 08:10	01/03/19 13:14	1
Molybdenum	ND		0.00500	0.000474	mg/L		12/18/18 12:17	12/19/18 21:12	1
Nickel	ND		0.00100	0.000312	mg/L		12/18/18 12:17	12/19/18 21:12	1
Selenium	ND		0.00500	0.000813	mg/L		12/18/18 12:17	12/19/18 21:12	1
Silver	ND		0.00100	0.000121	mg/L		12/18/18 12:17	12/19/18 21:12	1
Thallium	ND		0.00100	0.0000630	mg/L		12/18/18 12:17	12/19/18 21:12	1
<b>Vanadium</b>	<b>0.00119</b>	<b>B</b>	0.00100	0.000899	mg/L		12/18/18 12:17	12/19/18 21:12	1
Zinc	ND		0.00500	0.00242	mg/L		12/18/18 12:17	12/19/18 21:12	1

**Method: EPA 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	*	0.000200	0.0000653	mg/L		12/18/18 11:31	12/19/18 18:03	1

# QC Sample Results

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

## Method: EPA 9056A - Anions, Ion Chromatography

**Lab Sample ID: MB 180-265932/6**  
**Matrix: Water**  
**Analysis Batch: 265932**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.00	0.715	mg/L			12/19/18 06:13	1
Fluoride	ND		0.100	0.0263	mg/L			12/19/18 06:13	1
Sulfate	ND		1.00	0.380	mg/L			12/19/18 06:13	1

**Lab Sample ID: LCS 180-265932/5**  
**Matrix: Water**  
**Analysis Batch: 265932**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	26.37		mg/L		105	80 - 120
Fluoride	1.25	1.406		mg/L		112	80 - 120
Sulfate	25.0	26.59		mg/L		106	80 - 120

**Lab Sample ID: 180-84710-D-4 MS**  
**Matrix: Water**  
**Analysis Batch: 265932**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	195		250	464.4		mg/L		108	80 - 120
Fluoride	ND		12.5	14.67		mg/L		117	80 - 120
Sulfate	595	^ F1	250	836.8		mg/L		97	80 - 120

**Lab Sample ID: 180-84710-D-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 265932**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	195		250	434.0		mg/L		96	80 - 120	7	15
Fluoride	ND		12.5	13.83		mg/L		111	80 - 120	6	15
Sulfate	595	^ F1	250	765.5	F1	mg/L		68	80 - 120	9	15

**Lab Sample ID: MB 180-266234/1-A**  
**Matrix: Solid**  
**Analysis Batch: 266206**

**Client Sample ID: Method Blank**  
**Prep Type: Soluble**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		10.0	3.88	mg/Kg			12/21/18 09:29	1
Fluoride	ND		1.00	0.680	mg/Kg			12/21/18 09:29	1
Sulfate	ND		10.0	6.79	mg/Kg			12/21/18 09:29	1

**Lab Sample ID: LCS 180-266234/2-A**  
**Matrix: Solid**  
**Analysis Batch: 266206**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Soluble**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	255.8		mg/Kg		102	80 - 120
Fluoride	12.5	12.74		mg/Kg		102	80 - 120
Sulfate	250	248.3		mg/Kg		99	80 - 120

TestAmerica Pittsburgh

# QC Sample Results

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

## Method: EPA 9056A - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 180-84959-A-2-F MS**  
**Matrix: Solid**  
**Analysis Batch: 266206**

**Client Sample ID: Matrix Spike**  
**Prep Type: Soluble**

Analyte	Sample	Sample	Spike	MS MS		Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	Limits
Chloride	514		299	794.1		mg/Kg	☼	94	80 - 120	
Fluoride	ND	F1	14.9	11.71	F1	mg/Kg	☼	78	80 - 120	
Sulfate	3530		299	3695	4	mg/Kg	☼	54	80 - 120	

**Lab Sample ID: 180-84959-A-2-G MSD**  
**Matrix: Solid**  
**Analysis Batch: 266206**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Soluble**

Analyte	Sample	Sample	Spike	MSD MSD		Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	Limits	RPD	Limit
Chloride	514		298	833.6		mg/Kg	☼	107	80 - 120		5	15
Fluoride	ND	F1	14.9	12.01		mg/Kg	☼	81	80 - 120		3	15
Sulfate	3530		298	4221	4	mg/Kg	☼	231	80 - 120		13	15

## Method: EPA 6020A - Metals (ICP/MS)

**Lab Sample ID: MB 180-266051/1-A**  
**Matrix: Solid**  
**Analysis Batch: 266262**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 266051**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
Antimony	ND		0.200	0.0620	mg/Kg		12/19/18 15:14	12/20/18 14:02		1	
Arsenic	ND		0.100	0.0260	mg/Kg		12/19/18 15:14	12/20/18 14:02		1	
Barium	ND		1.00	0.0570	mg/Kg		12/19/18 15:14	12/20/18 14:02		1	
Beryllium	ND		0.100	0.00750	mg/Kg		12/19/18 15:14	12/20/18 14:02		1	
Boron	ND		8.00	0.763	mg/Kg		12/19/18 15:14	12/20/18 14:02		1	
Cadmium	ND		0.100	0.0170	mg/Kg		12/19/18 15:14	12/20/18 14:02		1	
Calcium	ND		50.0	8.95	mg/Kg		12/19/18 15:14	12/20/18 14:02		1	
Chromium	ND		0.200	0.0660	mg/Kg		12/19/18 15:14	12/20/18 14:02		1	
Cobalt	ND		0.0500	0.00830	mg/Kg		12/19/18 15:14	12/20/18 14:02		1	
Copper	ND		0.200	0.113	mg/Kg		12/19/18 15:14	12/20/18 14:02		1	
Lead	ND		0.100	0.0350	mg/Kg		12/19/18 15:14	12/20/18 14:02		1	
Lithium	ND		0.500	0.276	mg/Kg		12/19/18 15:14	12/20/18 14:02		1	
Molybdenum	ND		0.500	0.0620	mg/Kg		12/19/18 15:14	12/20/18 14:02		1	
Nickel	ND		0.100	0.0610	mg/Kg		12/19/18 15:14	12/20/18 14:02		1	
Selenium	ND		0.500	0.0600	mg/Kg		12/19/18 15:14	12/20/18 14:02		1	
Silver	ND		0.100	0.0140	mg/Kg		12/19/18 15:14	12/20/18 14:02		1	
Thallium	ND		0.100	0.0130	mg/Kg		12/19/18 15:14	12/20/18 14:02		1	
Vanadium	ND		0.100	0.0610	mg/Kg		12/19/18 15:14	12/20/18 14:02		1	
Zinc	ND		0.500	0.334	mg/Kg		12/19/18 15:14	12/20/18 14:02		1	

**Lab Sample ID: LCS 180-266051/2-A**  
**Matrix: Solid**  
**Analysis Batch: 266262**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 266051**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	Limits
Antimony	50.0	48.61		mg/Kg		97	80 - 120	
Arsenic	4.00	3.700		mg/Kg		93	80 - 120	
Barium	200	183.7		mg/Kg		92	80 - 120	

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# QC Sample Results

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

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

**Lab Sample ID: LCS 180-266051/2-A**  
**Matrix: Solid**  
**Analysis Batch: 266262**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 266051**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Beryllium	5.00	4.921		mg/Kg		98	80 - 120
Boron	100	97.89		mg/Kg		98	80 - 120
Cadmium	5.00	5.148		mg/Kg		103	80 - 120
Calcium	5000	4769		mg/Kg		95	80 - 120
Chromium	20.0	18.68		mg/Kg		93	80 - 120
Cobalt	50.0	47.73		mg/Kg		95	80 - 120
Copper	25.0	25.33		mg/Kg		101	80 - 120
Lead	2.00	1.942		mg/Kg		97	80 - 120
Lithium	5.00	4.960		mg/Kg		99	80 - 120
Molybdenum	100	101.0		mg/Kg		101	80 - 120
Nickel	50.0	47.27		mg/Kg		95	80 - 120
Selenium	1.00	0.9149		mg/Kg		91	80 - 120
Silver	5.00	5.116		mg/Kg		102	80 - 120
Thallium	5.00	4.703		mg/Kg		94	80 - 120
Vanadium	50.0	48.81		mg/Kg		98	80 - 120
Zinc	50.0	48.55		mg/Kg		97	80 - 120

**Lab Sample ID: 180-84982-A-9-B MS**  
**Matrix: Solid**  
**Analysis Batch: 266262**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 266051**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	3.12	F1	68.3	53.14	F1	mg/Kg	☼	73	75 - 125
Arsenic	3.49	F1 F2	5.47	9.289		mg/Kg	☼	106	75 - 125
Barium	59.8		273	291.5		mg/Kg	☼	85	75 - 125
Beryllium	0.828		6.83	7.095		mg/Kg	☼	92	75 - 125
Boron	2.07	J	137	120.8		mg/Kg	☼	87	75 - 125
Cadmium	1.33		6.83	8.015		mg/Kg	☼	98	75 - 125
Calcium	157		6830	5858		mg/Kg	☼	83	75 - 125
Chromium	16.8	F1	27.3	42.18		mg/Kg	☼	93	75 - 125
Cobalt	7.91		68.3	61.27		mg/Kg	☼	78	75 - 125
Copper	402	F2	34.2	814.5	4	mg/Kg	☼	1208	75 - 125
Lead	130	F2	2.73	329.7	4	mg/Kg	☼	7292	75 - 125
Lithium	9.46	F1	6.83	19.85	F1	mg/Kg	☼	152	75 - 125
Molybdenum	0.710		137	127.9		mg/Kg	☼	93	75 - 125
Nickel	20.0	F1 F2	68.3	80.94		mg/Kg	☼	89	75 - 125
Selenium	0.622	J F1	1.37	1.646		mg/Kg	☼	75	75 - 125
Silver	0.0559	J	6.83	6.406		mg/Kg	☼	93	75 - 125
Thallium	0.137		6.83	6.212		mg/Kg	☼	89	75 - 125
Vanadium	24.4	F1	68.3	80.79		mg/Kg	☼	83	75 - 125
Zinc	426	F2	68.3	664.3	4	mg/Kg	☼	349	75 - 125

**Lab Sample ID: 180-84982-A-9-C MSD**  
**Matrix: Solid**  
**Analysis Batch: 266262**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 266051**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	3.12	F1	68.3	45.00	F1	mg/Kg	☼	61	75 - 125	17	20
Arsenic	3.49	F1 F2	5.47	6.964	F1 F2	mg/Kg	☼	64	75 - 125	29	20

TestAmerica Pittsburgh

# QC Sample Results

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

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

**Lab Sample ID: 180-84982-A-9-C MSD**  
**Matrix: Solid**  
**Analysis Batch: 266262**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 266051**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Barium	59.8		273	277.2		mg/Kg	☼	80	75 - 125	5	20
Beryllium	0.828		6.83	6.402		mg/Kg	☼	82	75 - 125	10	20
Boron	2.07	J	137	111.5		mg/Kg	☼	80	75 - 125	8	20
Cadmium	1.33		6.83	8.770		mg/Kg	☼	109	75 - 125	9	20
Calcium	157		6830	5347		mg/Kg	☼	76	75 - 125	9	20
Chromium	16.8	F1	27.3	36.14	F1	mg/Kg	☼	71	75 - 125	15	20
Cobalt	7.91		68.3	58.86		mg/Kg	☼	75	75 - 125	4	20
Copper	402	F2	34.2	403.5	4 F2	mg/Kg	☼	5	75 - 125	67	20
Lead	130	F2	2.73	121.9	4 F2	mg/Kg	☼	-310	75 - 125	92	20
Lithium	9.46	F1	6.83	18.77	F1	mg/Kg	☼	136	75 - 125	6	20
Molybdenum	0.710		137	117.4		mg/Kg	☼	85	75 - 125	9	20
Nickel	20.0	F1 F2	68.3	64.65	F1 F2	mg/Kg	☼	65	75 - 125	22	20
Selenium	0.622	J F1	1.37	1.577	F1	mg/Kg	☼	70	75 - 125	4	20
Silver	0.0559	J	6.83	5.988		mg/Kg	☼	87	75 - 125	7	20
Thallium	0.137		6.83	5.769		mg/Kg	☼	82	75 - 125	7	20
Vanadium	24.4	F1	68.3	72.84	F1	mg/Kg	☼	71	75 - 125	10	20
Zinc	426	F2	68.3	395.6	4 F2	mg/Kg	☼	-44	75 - 125	51	20

**Lab Sample ID: MB 180-265880/1-A**  
**Matrix: Water**  
**Analysis Batch: 266093**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 265880**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Antimony	ND		0.00200	0.00112	mg/L		12/18/18 12:17	12/19/18 19:23		1
Arsenic	ND		0.00100	0.000323	mg/L		12/18/18 12:17	12/19/18 19:23		1
Barium	ND		0.0100	0.000373	mg/L		12/18/18 12:17	12/19/18 19:23		1
Beryllium	ND		0.00100	0.0000570	mg/L		12/18/18 12:17	12/19/18 19:23		1
Boron	ND		0.0800	0.0303	mg/L		12/18/18 12:17	12/19/18 19:23		1
Cadmium	ND		0.00100	0.000125	mg/L		12/18/18 12:17	12/19/18 19:23		1
Calcium	ND		0.500	0.116	mg/L		12/18/18 12:17	12/19/18 19:23		1
Chromium	ND		0.00200	0.000631	mg/L		12/18/18 12:17	12/19/18 19:23		1
Cobalt	ND		0.000500	0.0000750	mg/L		12/18/18 12:17	12/19/18 19:23		1
Copper	ND		0.00200	0.00130	mg/L		12/18/18 12:17	12/19/18 19:23		1
Lead	ND		0.00100	0.0000940	mg/L		12/18/18 12:17	12/19/18 19:23		1
Molybdenum	ND		0.00500	0.000474	mg/L		12/18/18 12:17	12/19/18 19:23		1
Nickel	ND		0.00100	0.000312	mg/L		12/18/18 12:17	12/19/18 19:23		1
Selenium	ND		0.00500	0.000813	mg/L		12/18/18 12:17	12/19/18 19:23		1
Silver	ND		0.00100	0.000121	mg/L		12/18/18 12:17	12/19/18 19:23		1
Thallium	ND		0.00100	0.0000630	mg/L		12/18/18 12:17	12/19/18 19:23		1
Vanadium	0.0009460	J	0.00100	0.000899	mg/L		12/18/18 12:17	12/19/18 19:23		1
Zinc	ND		0.00500	0.00242	mg/L		12/18/18 12:17	12/19/18 19:23		1

**Lab Sample ID: LCS 180-265880/2-A**  
**Matrix: Water**  
**Analysis Batch: 266093**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 265880**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.500	0.5311		mg/L		106	80 - 120
Arsenic	0.0400	0.04096		mg/L		102	80 - 120

TestAmerica Pittsburgh

# QC Sample Results

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

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

**Lab Sample ID: LCS 180-265880/2-A**  
**Matrix: Water**  
**Analysis Batch: 266093**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 265880**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	2.00	2.120		mg/L		106	80 - 120
Beryllium	0.0500	0.05358		mg/L		107	80 - 120
Boron	1.00	1.132		mg/L		113	80 - 120
Cadmium	0.0500	0.05658		mg/L		113	80 - 120
Calcium	50.0	52.64		mg/L		105	80 - 120
Chromium	0.200	0.2207		mg/L		110	80 - 120
Cobalt	0.500	0.5158		mg/L		103	80 - 120
Copper	0.250	0.2650		mg/L		106	80 - 120
Lead	0.0200	0.02145		mg/L		107	80 - 120
Molybdenum	1.00	1.075		mg/L		107	80 - 120
Nickel	0.500	0.5064		mg/L		101	80 - 120
Selenium	0.0100	0.01017		mg/L		102	80 - 120
Silver	0.0500	0.05351		mg/L		107	80 - 120
Thallium	0.0500	0.05330		mg/L		107	80 - 120
Vanadium	0.500	0.5453		mg/L		109	80 - 120
Zinc	0.500	0.5080		mg/L		102	80 - 120

**Lab Sample ID: 180-84907-A-18-B MS ^10**  
**Matrix: Water**  
**Analysis Batch: 266093**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 265880**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		0.500	0.5127		mg/L		103	75 - 125
Arsenic	1.38	F2	0.0400	1.328	4	mg/L		-138	75 - 125
Barium	0.0186	J	2.00	2.087		mg/L		103	75 - 125
Beryllium	0.00850	J	0.0500	0.06046		mg/L		104	75 - 125
Boron	0.789	J	1.00	1.741		mg/L		95	75 - 125
Cadmium	ND		0.0500	0.05414		mg/L		108	75 - 125
Calcium	268		50.0	328.4	4	mg/L		121	75 - 125
Chromium	0.210		0.200	0.4242		mg/L		107	75 - 125
Cobalt	0.623		0.500	1.168		mg/L		109	75 - 125
Copper	0.0173	J	0.250	0.2763		mg/L		104	75 - 125
Lead	0.00476	J	0.0200	0.02514		mg/L		102	75 - 125
Molybdenum	ND		1.00	1.071		mg/L		107	75 - 125
Nickel	0.434		0.500	0.9648		mg/L		106	75 - 125
Selenium	0.0162	J	0.0100	0.02649	J	mg/L		103	75 - 125
Silver	ND		0.0500	0.05257		mg/L		105	75 - 125
Thallium	0.00151	J	0.0500	0.05255		mg/L		102	75 - 125
Vanadium	0.949	B	0.500	1.492		mg/L		109	75 - 125
Zinc	5.52		0.500	6.167	4	mg/L		129	75 - 125

**Lab Sample ID: 180-84907-A-18-C MSD ^10**  
**Matrix: Water**  
**Analysis Batch: 266093**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 265880**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	ND		0.500	0.5164		mg/L		103	75 - 125	1	20
Arsenic	1.38	F2	0.0400	2.229	4 F2	mg/L		2115	75 - 125	51	20
Barium	0.0186	J	2.00	2.140		mg/L		106	75 - 125	3	20

TestAmerica Pittsburgh

# QC Sample Results

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

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

**Lab Sample ID: 180-84907-A-18-C MSD ^10**  
**Matrix: Water**  
**Analysis Batch: 266093**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 265880**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Beryllium	0.00850	J	0.0500	0.06085		mg/L		105	75 - 125	1	20
Boron	0.789	J	1.00	1.719		mg/L		93	75 - 125	1	20
Cadmium	ND		0.0500	0.05655		mg/L		113	75 - 125	4	20
Calcium	268		50.0	328.4	4	mg/L		122	75 - 125	0	20
Chromium	0.210		0.200	0.4333		mg/L		111	75 - 125	2	20
Cobalt	0.623		0.500	1.189		mg/L		113	75 - 125	2	20
Copper	0.0173	J	0.250	0.2955		mg/L		111	75 - 125	7	20
Lead	0.00476	J	0.0200	0.02897		mg/L		121	75 - 125	14	20
Molybdenum	ND		1.00	1.075		mg/L		108	75 - 125	0	20
Nickel	0.434		0.500	0.9856		mg/L		110	75 - 125	2	20
Selenium	0.0162	J	0.0100	0.02381	J	mg/L		76	75 - 125	11	20
Silver	ND		0.0500	0.05282		mg/L		106	75 - 125	0	20
Thallium	0.00151	J	0.0500	0.05405		mg/L		105	75 - 125	3	20
Vanadium	0.949	B	0.500	1.521		mg/L		114	75 - 125	2	20
Zinc	5.52		0.500	6.453	4	mg/L		186	75 - 125	5	20

**Lab Sample ID: MB 180-266943/1-A**  
**Matrix: Water**  
**Analysis Batch: 267011**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 266943**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Lithium	ND		0.00500	0.00256	mg/L		01/03/19 08:10	01/03/19 12:59	1

**Lab Sample ID: LCS 180-266943/2-A**  
**Matrix: Water**  
**Analysis Batch: 267011**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 266943**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.	RPD	Limit
		Result	Qualifier				Limits		
Lithium	0.0500	0.05361		mg/L		107	80 - 120		

**Lab Sample ID: LCSD 180-266943/3-A**  
**Matrix: Water**  
**Analysis Batch: 267011**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total Recoverable**  
**Prep Batch: 266943**

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
		Result	Qualifier				Limits		
Lithium	0.0500	0.05331		mg/L		107	80 - 120	1	20

## Method: EPA 7470A - Mercury (CVAA)

**Lab Sample ID: MB 180-265872/1-A**  
**Matrix: Water**  
**Analysis Batch: 266063**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 265872**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.000200	0.0000653	mg/L		12/18/18 11:31	12/19/18 17:37	1

TestAmerica Pittsburgh

# QC Sample Results

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

## Method: EPA 7470A - Mercury (CVAA) (Continued)

**Lab Sample ID: LCS 180-265872/2-A**  
**Matrix: Water**  
**Analysis Batch: 266063**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 265872**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00250	0.004919	*	mg/L		197	80 - 120

**Lab Sample ID: 180-84960-E-2-B MS**  
**Matrix: Water**  
**Analysis Batch: 266063**

**Client Sample ID: Matrix Spike**  
**Prep Type: Dissolved**  
**Prep Batch: 265872**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	ND	*	0.00100	0.0009570		mg/L		96	75 - 125

**Lab Sample ID: 180-84960-E-2-C MSD**  
**Matrix: Water**  
**Analysis Batch: 266063**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Dissolved**  
**Prep Batch: 265872**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	ND	*	0.00100	0.0009760		mg/L		98	75 - 125	2	20

## Method: EPA 7471B - Mercury (CVAA)

**Lab Sample ID: MB 180-266507/1-A**  
**Matrix: Solid**  
**Analysis Batch: 266552**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 266507**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0330	0.0143	mg/Kg		12/26/18 12:13	12/26/18 20:21	1

**Lab Sample ID: LCS 180-266507/2-A**  
**Matrix: Solid**  
**Analysis Batch: 266552**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 266507**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.417	0.4407		mg/Kg		106	80 - 120

**Lab Sample ID: 180-85101-A-1-H MS**  
**Matrix: Solid**  
**Analysis Batch: 266552**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 266507**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.0232	J F1 F2	0.182	0.2224		mg/Kg		110	80 - 120

**Lab Sample ID: 180-85101-A-1-I MSD**  
**Matrix: Solid**  
**Analysis Batch: 266552**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 266507**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.0232	J F1 F2	0.161	0.3418	F1 F4	mg/Kg		198	80 - 120	42	20

TestAmerica Pittsburgh

# QC Sample Results

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

## Method: 2540G - SM 2540G

Lab Sample ID: 180-84957-C-10 DU  
Matrix: Solid  
Analysis Batch: 265839

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	20.5		20.6		%		0.5	10
Percent Solids	79.5		79.4		%		0.1	10

## Method: EPA 9045D - pH

Lab Sample ID: LCS 180-265858/1  
Matrix: Solid  
Analysis Batch: 265858

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99 - 101

Lab Sample ID: 180-84937-A-1 DU  
Matrix: Solid  
Analysis Batch: 265858

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
pH	11.0		11.0		SU		0.3	2

# QC Association Summary

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

## HPLC/IC

### Analysis Batch: 265932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-84958-3	CUF-BS-FB-16-20181213	Total/NA	Water	EPA 9056A	
MB 180-265932/6	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-265932/5	Lab Control Sample	Total/NA	Water	EPA 9056A	
180-84710-D-4 MS	Matrix Spike	Total/NA	Water	EPA 9056A	
180-84710-D-4 MSD	Matrix Spike Duplicate	Total/NA	Water	EPA 9056A	

### Analysis Batch: 266206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-84958-1	CUF-BS-CUF-1001 ALT- 13.5/15.0-20181212	Soluble	Solid	EPA 9056A	266234
180-84958-2	CUF-BS-CUF-1001 ALT- 19.5/21.0-20181213	Soluble	Solid	EPA 9056A	266234
MB 180-266234/1-A	Method Blank	Soluble	Solid	EPA 9056A	266234
LCS 180-266234/2-A	Lab Control Sample	Soluble	Solid	EPA 9056A	266234
180-84959-A-2-F MS	Matrix Spike	Soluble	Solid	EPA 9056A	266234
180-84959-A-2-G MSD	Matrix Spike Duplicate	Soluble	Solid	EPA 9056A	266234

### Leach Batch: 266234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-84958-1	CUF-BS-CUF-1001 ALT- 13.5/15.0-20181212	Soluble	Solid	DI Leach	
180-84958-2	CUF-BS-CUF-1001 ALT- 19.5/21.0-20181213	Soluble	Solid	DI Leach	
MB 180-266234/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 180-266234/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
180-84959-A-2-F MS	Matrix Spike	Soluble	Solid	DI Leach	
180-84959-A-2-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Metals

### Prep Batch: 265872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-84958-3	CUF-BS-FB-16-20181213	Total/NA	Water	7470A	
MB 180-265872/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-265872/2-A	Lab Control Sample	Total/NA	Water	7470A	
180-84960-E-2-B MS	Matrix Spike	Dissolved	Water	7470A	
180-84960-E-2-C MSD	Matrix Spike Duplicate	Dissolved	Water	7470A	

### Prep Batch: 265880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-84958-3	CUF-BS-FB-16-20181213	Total Recoverable	Water	3005A	
MB 180-265880/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-265880/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-84907-A-18-B MS ^10	Matrix Spike	Total Recoverable	Water	3005A	
180-84907-A-18-C MSD ^10	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Prep Batch: 266051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-84958-1	CUF-BS-CUF-1001 ALT- 13.5/15.0-20181212	Total/NA	Solid	3050B	
180-84958-2	CUF-BS-CUF-1001 ALT- 19.5/21.0-20181213	Total/NA	Solid	3050B	
MB 180-266051/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 180-266051/2-A	Lab Control Sample	Total/NA	Solid	3050B	
180-84982-A-9-B MS	Matrix Spike	Total/NA	Solid	3050B	
180-84982-A-9-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3050B	

TestAmerica Pittsburgh

# QC Association Summary

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

## Metals (Continued)

### Analysis Batch: 266063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-84958-3	CUF-BS-FB-16-20181213	Total/NA	Water	EPA 7470A	265872
MB 180-265872/1-A	Method Blank	Total/NA	Water	EPA 7470A	265872
LCS 180-265872/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	265872
180-84960-E-2-B MS	Matrix Spike	Dissolved	Water	EPA 7470A	265872
180-84960-E-2-C MSD	Matrix Spike Duplicate	Dissolved	Water	EPA 7470A	265872

### Analysis Batch: 266093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-84958-3	CUF-BS-FB-16-20181213	Total Recoverable	Water	EPA 6020A	265880
MB 180-265880/1-A	Method Blank	Total Recoverable	Water	EPA 6020A	265880
LCS 180-265880/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020A	265880
180-84907-A-18-B MS ^10	Matrix Spike	Total Recoverable	Water	EPA 6020A	265880
180-84907-A-18-C MSD ^10	Matrix Spike Duplicate	Total Recoverable	Water	EPA 6020A	265880

### Analysis Batch: 266262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-84958-1	CUF-BS-CUF-1001 ALT- 13.5/15.0-20181212	Total/NA	Solid	EPA 6020A	266051
180-84958-2	CUF-BS-CUF-1001 ALT- 19.5/21.0-20181213	Total/NA	Solid	EPA 6020A	266051
MB 180-266051/1-A	Method Blank	Total/NA	Solid	EPA 6020A	266051
LCS 180-266051/2-A	Lab Control Sample	Total/NA	Solid	EPA 6020A	266051
180-84982-A-9-B MS	Matrix Spike	Total/NA	Solid	EPA 6020A	266051
180-84982-A-9-C MSD	Matrix Spike Duplicate	Total/NA	Solid	EPA 6020A	266051

### Prep Batch: 266507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-84958-1	CUF-BS-CUF-1001 ALT- 13.5/15.0-20181212	Total/NA	Solid	7471B	
180-84958-2	CUF-BS-CUF-1001 ALT- 19.5/21.0-20181213	Total/NA	Solid	7471B	
MB 180-266507/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 180-266507/2-A	Lab Control Sample	Total/NA	Solid	7471B	
180-85101-A-1-H MS	Matrix Spike	Total/NA	Solid	7471B	
180-85101-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	7471B	

### Analysis Batch: 266552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-84958-1	CUF-BS-CUF-1001 ALT- 13.5/15.0-20181212	Total/NA	Solid	EPA 7471B	266507
180-84958-2	CUF-BS-CUF-1001 ALT- 19.5/21.0-20181213	Total/NA	Solid	EPA 7471B	266507
MB 180-266507/1-A	Method Blank	Total/NA	Solid	EPA 7471B	266507
LCS 180-266507/2-A	Lab Control Sample	Total/NA	Solid	EPA 7471B	266507
180-85101-A-1-H MS	Matrix Spike	Total/NA	Solid	EPA 7471B	266507
180-85101-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	EPA 7471B	266507

### Prep Batch: 266943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-84958-3	CUF-BS-FB-16-20181213	Total Recoverable	Water	3005A	
MB 180-266943/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-266943/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 180-266943/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

### Analysis Batch: 267011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-84958-3	CUF-BS-FB-16-20181213	Total Recoverable	Water	EPA 6020A	266943

TestAmerica Pittsburgh

# QC Association Summary

Client: Environmental Standards Inc.  
Project/Site: CUF\_BS\_20181213\_2A

TestAmerica Job ID: 180-84958-1

## Metals (Continued)

### Analysis Batch: 267011 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-266943/1-A	Method Blank	Total Recoverable	Water	EPA 6020A	266943
LCS 180-266943/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020A	266943
LCSD 180-266943/3-A	Lab Control Sample Dup	Total Recoverable	Water	EPA 6020A	266943

## General Chemistry

### Analysis Batch: 265839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-84958-1	CUF-BS-CUF-1001 ALT- 13.5/15.0-20181212	Total/NA	Solid	2540G	
180-84958-2	CUF-BS-CUF-1001 ALT- 19.5/21.0-20181213	Total/NA	Solid	2540G	
180-84957-C-10 DU	Duplicate	Total/NA	Solid	2540G	

### Analysis Batch: 265858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-84958-1	CUF-BS-CUF-1001 ALT- 13.5/15.0-20181212	Total/NA	Solid	EPA 9045D	
180-84958-2	CUF-BS-CUF-1001 ALT- 19.5/21.0-20181213	Total/NA	Solid	EPA 9045D	
LCS 180-265858/1	Lab Control Sample	Total/NA	Solid	EPA 9045D	
180-84937-A-1 DU	Duplicate	Total/NA	Solid	EPA 9045D	



# Login Sample Receipt Checklist

Client: Environmental Standards Inc.

Job Number: 180-84958-1

**Login Number: 84958**

**List Source: TestAmerica Pittsburgh**

**List Number: 1**

**Creator: Neri, Tom**

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

