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March 24, 2023

Ms. Becky Jolly
Iowa Department of Natural Resources
Land Quality Bureau
502 E. 9th Street
Des Moines, Iowa 50319

Dear Ms. Jolly:

Re: Fluff Quarterly Sampling Results
Alter Metal Recycling - Council Bluffs, Iowa
1st Quarter 2023 – March 2023

CJF Associates, LLC (CJF) is pleased to submit this report on behalf of Alter Trading Corporation, Council Bluffs, Iowa (Alter). This report presents the quarterly fluff sampling results as identified above.

Summary

- PCBs concentration this quarter: 7.9 mg/kg;
- Ten-Sample Rolling PCBs Average: 11.24 mg/kg;
- PCBs TCLP result this quarter is non-detect; and
- All TCLP metal results are below regulatory criteria.

Based on the analytical results; the fluff may be landfilled in Iowa per IAC 567, Chapter 118.

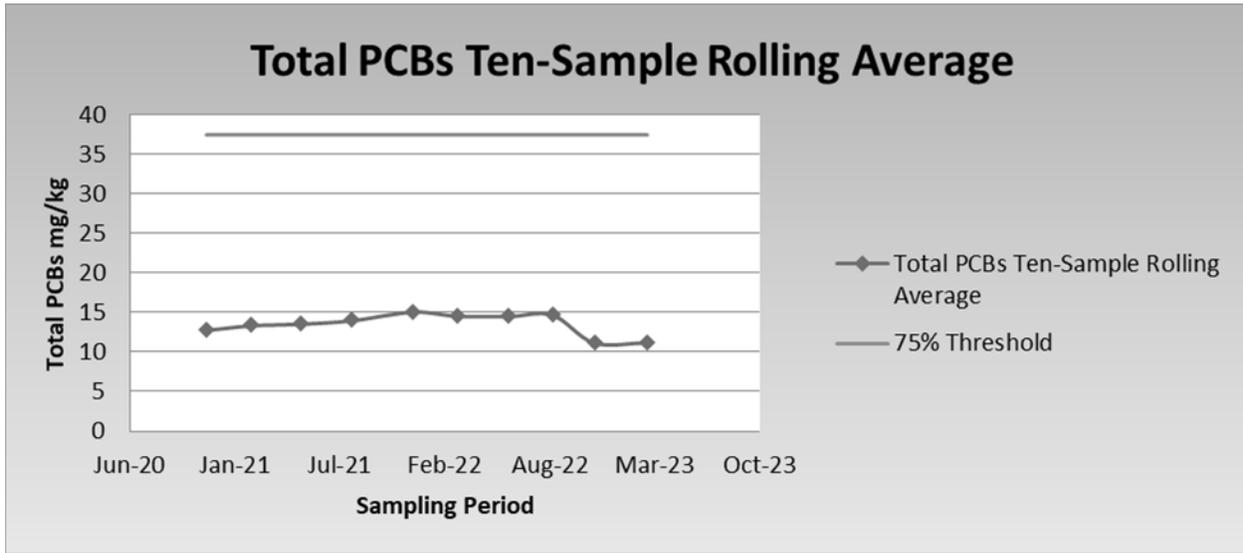
Details

In order to characterize the fluff, samples were collected and analyzed from the bulk seven-day composite sample. The composite sample was collected from January 17, 2023 through January 30, 2022 in accordance with IAC 567, Chapter 118. Samples were analyzed for total Polychlorinated Biphenyls (PCBs), Toxic Characteristic Leaching Procedure (TCLP) PCBs, TCLP Resource Conservation and Recovery Act (RCRA) metals, and Ignitability.

Total PCBs results for the sampling period. TCLP PCBs were not detected above the laboratory reporting limit. Barium, cadmium and lead were the only RCRA metals identified above the laboratory reporting limits but below regulatory TCLP concentrations. Lead was detected at a concentration of 0.19 mg/L which does not exceed the regulatory TCLP concentration of 5.0 mg/L. The present ten-sample rolling average for PCBs is 11.24 mg/kg. Rolling averages of the ten-sampling period results for total PCBs are presented below:



March 24, 2023



First quarter analytical results are summarized as follows:

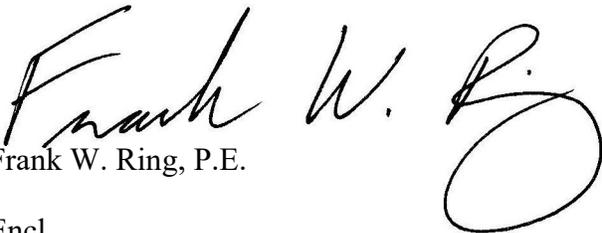
Sample ID	Analyte										
	Total PCBs ¹	TCLP PCBs	TCLP Arsenic	TCLP Barium	TCLP Cad	TCLP Chrom	TCLP Lead	TCLP Sel	TCLP Silver	TCLP Mercury	Ignitability ²
ZCSF-0203023-002	7.9	ND	ND	0.82	0.14	ND	0.19	ND	ND	ND	>200

Notes: All TCLP results are reported in mg/L ND = Not Detected Above Laboratory Detection Limits
 (1) Results reported in mg/kg NA = Not Analyzed
 (2) Results reported in degrees Fahrenheit

Laboratory analytical results and chain of custody forms are presented in Attachment A.

If you have any questions, please contact Frank W. Ring at (313) 999-4071.

Sincerely,
CJF Associates, LLC



Frank W. Ring, P.E.

Encl.
 CC: Ryan Carpenter, Alter
 Mickaela Saner, Iowa Waste Systems Inc.

ATTACHMENT A

LABORATORY ANALYTICAL RESULTS

ANALYTICAL REPORT

PREPARED FOR

Attn: Charles Ring
CJF Associates, LLC
PO BOX 80815
St. Claire Shores, Michigan 48080

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JOB DESCRIPTION

Council Bluffs, Iowa, 1216

JOB NUMBER

240-181434-1

Eurofins Canton

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization



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Definitions/Glossary

Client: CJF Associates, LLC
Project/Site: Council Bluffs, Iowa, 1216

Job ID: 240-181434-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

Metals

Qualifier	Qualifier Description
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

Case Narrative

Client: CJF Associates, LLC
Project/Site: Council Bluffs, Iowa, 1216

Job ID: 240-181434-1

Job ID: 240-181434-1

Laboratory: Eurofins Canton

Narrative

Job Narrative 240-181434-1

Comments

No additional comments.

Receipt

The samples were received on 3/6/2023 8:55 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.5° C.

GC Semi VOA

Method 8082A: The following sample was diluted due to the nature of the sample matrix: ZCSF-02030323-002 (240-181434-1). Elevated reporting limits (RLs) are provided.

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

Metals

Method 6010D: The low level continuing calibration verification (CCVL) associated with batch 310-381265 recovered above the upper control limit for Silver. The samples associated with this CCV were non-detects for the affected analytes; 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.

Organic Prep

Method 1311: The following sample was tumbled in plastic due to matrix: ZCSF-02030323-002 (240-181434-1).

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 310-380817 and 310-380875. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

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

Method Summary

Client: CJF Associates, LLC
Project/Site: Council Bluffs, Iowa, 1216

Job ID: 240-181434-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET CF
PCB	Total PCB Calculation	TAL SOP	EET CF
6010D	Metals (ICP)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
D92	Flashpoint	ASTM	EET CF
Moisture	Percent Moisture	EPA	EET CF
1311	TCLP Extraction	SW846	EET CF
3010A	Preparation, Total Metals	SW846	EET CF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CF
3550B	Ultrasonic Extraction	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Sample Summary

Client: CJF Associates, LLC
Project/Site: Council Bluffs, Iowa, 1216

Job ID: 240-181434-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-181434-1	ZCSF-02030323-002	Solid	03/03/23 14:00	03/06/23 08:55

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Detection Summary

Client: CJF Associates, LLC
Project/Site: Council Bluffs, Iowa, 1216

Job ID: 240-181434-1

Client Sample ID: ZCSF-02030323-002

Lab Sample ID: 240-181434-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	7.9		1.3	0.14	mg/Kg	20	✱	8082A	Total/NA
Total PCBs	7.9		1.3	0.14	mg/Kg	1		PCB	Total/NA
Barium	0.82		0.40	0.080	mg/L	2		6010D	TCLP
Cadmium	0.14		0.040	0.0078	mg/L	2		6010D	TCLP
Lead	0.19	J	0.20	0.052	mg/L	2		6010D	TCLP
Flashpoint	>200		65.0	65.0	Degrees F	1		D92	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Canton

Client Sample Results

Client: CJF Associates, LLC
 Project/Site: Council Bluffs, Iowa, 1216

Job ID: 240-181434-1

Client Sample ID: ZCSF-02030323-002

Lab Sample ID: 240-181434-1

Date Collected: 03/03/23 14:00

Matrix: Solid

Date Received: 03/06/23 08:55

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND	*+	4.0	1.3	ug/L		03/09/23 08:28	03/14/23 14:32	1
PCB-1221	ND		4.0	1.3	ug/L		03/09/23 08:28	03/14/23 14:32	1
PCB-1232	ND		4.0	1.3	ug/L		03/09/23 08:28	03/14/23 14:32	1
PCB-1242	ND		4.0	1.3	ug/L		03/09/23 08:28	03/14/23 14:32	1
PCB-1248	ND		4.0	1.1	ug/L		03/09/23 08:28	03/14/23 14:32	1
PCB-1254	ND		4.0	1.1	ug/L		03/09/23 08:28	03/14/23 14:32	1
PCB-1260	ND	*+	4.0	1.1	ug/L		03/09/23 08:28	03/14/23 14:32	1
PCB-1268	ND		4.0	1.1	ug/L		03/09/23 08:28	03/14/23 14:32	1
Polychlorinated biphenyls, Total	ND	*+	4.0	1.3	ug/L		03/09/23 08:28	03/14/23 14:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	53		11 - 122				03/09/23 08:28	03/14/23 14:32	1
Tetrachloro-m-xylene	102		23 - 123				03/09/23 08:28	03/14/23 14:32	1

Method: TAL SOP PCB - Total PCB Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total PCBs	7.9		1.3	0.14	mg/Kg			03/22/23 15:45	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.20	0.060	mg/L		03/13/23 08:45	03/13/23 16:43	2
Barium	0.82		0.40	0.080	mg/L		03/13/23 08:45	03/13/23 16:43	2
Cadmium	0.14		0.040	0.0078	mg/L		03/13/23 08:45	03/13/23 16:43	2
Chromium	ND		0.040	0.012	mg/L		03/13/23 08:45	03/13/23 16:43	2
Lead	0.19	J	0.20	0.052	mg/L		03/13/23 08:45	03/13/23 16:43	2
Selenium	ND		0.20	0.058	mg/L		03/13/23 08:45	03/13/23 16:43	2
Silver	ND	^3+	0.10	0.028	mg/L		03/13/23 08:45	03/13/23 16:43	2

Method: SW846 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	F1	0.0020	0.0015	mg/L		03/13/23 10:10	03/13/23 17:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (ASTM D92)	>200		65.0	65.0	Degrees F			03/07/23 16:55	1
Percent Moisture (EPA Moisture)	16.2		0.1	0.1	%			03/07/23 11:53	1
Percent Solids (EPA Moisture)	83.8		0.1	0.1	%			03/07/23 11:53	1

Client Sample Results

Client: CJF Associates, LLC
 Project/Site: Council Bluffs, Iowa, 1216

Job ID: 240-181434-1

Client Sample ID: ZCSF-02030323-002

Lab Sample ID: 240-181434-1

Date Collected: 03/03/23 14:00

Matrix: Solid

Date Received: 03/06/23 08:55

Percent Solids: 83.8

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.067	0.0017	mg/Kg	✱	03/08/23 12:23	03/22/23 01:33	1
PCB-1221	ND		0.067	0.018	mg/Kg	✱	03/08/23 12:23	03/22/23 01:33	1
PCB-1232	ND		0.067	0.0067	mg/Kg	✱	03/08/23 12:23	03/22/23 01:33	1
PCB-1242	7.9		1.3	0.14	mg/Kg	✱	03/08/23 12:23	03/22/23 11:09	20
PCB-1248	ND		0.067	0.0046	mg/Kg	✱	03/08/23 12:23	03/22/23 01:33	1
PCB-1254	ND		0.067	0.0043	mg/Kg	✱	03/08/23 12:23	03/22/23 01:33	1
PCB-1260	ND		0.067	0.0023	mg/Kg	✱	03/08/23 12:23	03/22/23 01:33	1
PCB-1268	ND		0.067	0.00094	mg/Kg	✱	03/08/23 12:23	03/22/23 01:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>DCB Decachlorobiphenyl (Surr)</i>	72		10 - 149				03/08/23 12:23	03/22/23 01:33	1
<i>Tetrachloro-m-xylene</i>	102		10 - 147				03/08/23 12:23	03/22/23 01:33	1

Surrogate Summary

Client: CJF Associates, LLC
Project/Site: Council Bluffs, Iowa, 1216

Job ID: 240-181434-1

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (10-149)	TCX2 (10-147)
240-181434-1	ZCSF-02030323-002	72	102
LCS 310-380789/2-A	Lab Control Sample	80	92
LCSD 310-380789/3-A	Lab Control Sample Dup	75	78
MB 310-380789/1-A	Method Blank	73	85

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1 (11-122)	TCX1 (23-123)
LCS 310-380875/2-A	Lab Control Sample	109	92
LCSD 310-380875/3-A	Lab Control Sample Dup	61	69

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

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

Matrix: Solid

Prep Type: TCLP

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1 (11-122)	TCX1 (23-123)
240-181434-1	ZCSF-02030323-002	53	102
LB 310-380817/1-B	Method Blank	97	75

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

QC Sample Results

Client: CJF Associates, LLC
 Project/Site: Council Bluffs, Iowa, 1216

Job ID: 240-181434-1

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

Lab Sample ID: MB 310-380789/1-A
Matrix: Solid
Analysis Batch: 381839

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 380789

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.024	0.00063	mg/Kg		03/08/23 12:23	03/21/23 21:19	1
PCB-1221	ND		0.024	0.0065	mg/Kg		03/08/23 12:23	03/21/23 21:19	1
PCB-1232	ND		0.024	0.0024	mg/Kg		03/08/23 12:23	03/21/23 21:19	1
PCB-1242	ND		0.024	0.0026	mg/Kg		03/08/23 12:23	03/21/23 21:19	1
PCB-1248	ND		0.024	0.0016	mg/Kg		03/08/23 12:23	03/21/23 21:19	1
PCB-1254	ND		0.024	0.0015	mg/Kg		03/08/23 12:23	03/21/23 21:19	1
PCB-1260	ND		0.024	0.00082	mg/Kg		03/08/23 12:23	03/21/23 21:19	1
PCB-1268	ND		0.024	0.00034	mg/Kg		03/08/23 12:23	03/21/23 21:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	73		10 - 149	03/08/23 12:23	03/21/23 21:19	1
Tetrachloro-m-xylene	85		10 - 147	03/08/23 12:23	03/21/23 21:19	1

Lab Sample ID: LCS 310-380789/2-A
Matrix: Solid
Analysis Batch: 381910

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 380789

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	0.194	0.199		mg/Kg		102	33 - 129
PCB-1260	0.194	0.204		mg/Kg		105	39 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	80		10 - 149
Tetrachloro-m-xylene	92		10 - 147

Lab Sample ID: LCSD 310-380789/3-A
Matrix: Solid
Analysis Batch: 381910

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 380789

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	0.200	0.174		mg/Kg		87	33 - 129	14	39
PCB-1260	0.200	0.191		mg/Kg		96	39 - 133	6	40

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	75		10 - 149
Tetrachloro-m-xylene	78		10 - 147

Lab Sample ID: LCS 310-380875/2-A
Matrix: Solid
Analysis Batch: 381244

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 380875

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	12.5	12.4		ug/L		99	30 - 133
PCB-1260	12.5	13.2		ug/L		106	31 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	109		11 - 122

Eurofins Canton

QC Sample Results

Client: CJF Associates, LLC
 Project/Site: Council Bluffs, Iowa, 1216

Job ID: 240-181434-1

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

Lab Sample ID: LCS 310-380875/2-A
Matrix: Solid
Analysis Batch: 381244

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 380875

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	92		23 - 123

Lab Sample ID: LCSD 310-380875/3-A
Matrix: Solid
Analysis Batch: 381237

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 380875

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier						
PCB-1016	12.5	11.5		ug/L		92	30 - 133	NaN	35
PCB-1260	12.5	11.3		ug/L		91	31 - 133	NaN	35

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr)	61		11 - 122
Tetrachloro-m-xylene	69		23 - 123

Lab Sample ID: LB 310-380817/1-B
Matrix: Solid
Analysis Batch: 381244

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 380875

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	ND		4.0	1.3	ug/L		03/09/23 08:28	03/14/23 15:45	1
PCB-1221	ND		4.0	1.3	ug/L		03/09/23 08:28	03/14/23 15:45	1
PCB-1232	ND		4.0	1.3	ug/L		03/09/23 08:28	03/14/23 15:45	1
PCB-1242	ND		4.0	1.3	ug/L		03/09/23 08:28	03/14/23 15:45	1
PCB-1248	ND		4.0	1.1	ug/L		03/09/23 08:28	03/14/23 15:45	1
PCB-1254	ND		4.0	1.1	ug/L		03/09/23 08:28	03/14/23 15:45	1
PCB-1260	ND		4.0	1.1	ug/L		03/09/23 08:28	03/14/23 15:45	1
PCB-1268	ND		4.0	1.1	ug/L		03/09/23 08:28	03/14/23 15:45	1
Polychlorinated biphenyls, Total	ND		4.0	1.3	ug/L		03/09/23 08:28	03/14/23 15:45	1

Surrogate	LB LB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr)	97		11 - 122	03/09/23 08:28	03/14/23 15:45	1
Tetrachloro-m-xylene	75		23 - 123	03/09/23 08:28	03/14/23 15:45	1

Method: 6010D - Metals (ICP)

Lab Sample ID: LB 310-380816/1-B
Matrix: Solid
Analysis Batch: 381265

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 380997

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		0.10	0.030	mg/L		03/13/23 08:45	03/13/23 15:53	1
Barium	ND		0.20	0.040	mg/L		03/13/23 08:45	03/13/23 15:53	1
Cadmium	ND		0.020	0.0039	mg/L		03/13/23 08:45	03/13/23 15:53	1
Chromium	ND		0.020	0.0060	mg/L		03/13/23 08:45	03/13/23 15:53	1
Lead	ND		0.10	0.026	mg/L		03/13/23 08:45	03/13/23 15:53	1
Selenium	ND		0.10	0.029	mg/L		03/13/23 08:45	03/13/23 15:53	1
Silver	ND	^3+	0.050	0.014	mg/L		03/13/23 08:45	03/13/23 15:53	1

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QC Sample Results

Client: CJF Associates, LLC
 Project/Site: Council Bluffs, Iowa, 1216

Job ID: 240-181434-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 310-380816/2-B
Matrix: Solid
Analysis Batch: 381265

Client Sample ID: Lab Control Sample
Prep Type: TCLP
Prep Batch: 380997

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Arsenic	4.00	4.05		mg/L		101	80 - 120	
Barium	2.00	1.88		mg/L		94	80 - 120	
Cadmium	2.00	1.92		mg/L		96	80 - 120	
Chromium	2.00	1.93		mg/L		97	80 - 120	
Lead	4.00	3.77		mg/L		94	80 - 120	
Selenium	8.00	8.13		mg/L		102	80 - 120	
Silver	2.00	2.16	^3+	mg/L		108	80 - 120	

Method: 7470A - Mercury (CVAA)

Lab Sample ID: LB 310-380816/1-C
Matrix: Solid
Analysis Batch: 381191

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 381108

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.0020	0.0015	mg/L		03/13/23 10:10	03/13/23 17:38	1

Lab Sample ID: LCS 310-380816/2-C
Matrix: Solid
Analysis Batch: 381191

Client Sample ID: Lab Control Sample
Prep Type: TCLP
Prep Batch: 381108

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Mercury	0.0167	0.0169		mg/L		101	80 - 120	

Lab Sample ID: 240-181434-1 MS
Matrix: Solid
Analysis Batch: 381191

Client Sample ID: ZCSF-02030323-002
Prep Type: TCLP
Prep Batch: 381108

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec	
	Result	Qualifier		Result	Qualifier				Limits	
Mercury	ND	F1	0.0167	ND	F1	mg/L		0	80 - 120	

QC Association Summary

Client: CJF Associates, LLC
Project/Site: Council Bluffs, Iowa, 1216

Job ID: 240-181434-1

GC Semi VOA

Prep Batch: 380789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181434-1	ZCSF-02030323-002	Total/NA	Solid	3550B	
MB 310-380789/1-A	Method Blank	Total/NA	Solid	3550B	
LCS 310-380789/2-A	Lab Control Sample	Total/NA	Solid	3550B	
LCSD 310-380789/3-A	Lab Control Sample Dup	Total/NA	Solid	3550B	

Leach Batch: 380817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181434-1	ZCSF-02030323-002	TCLP	Solid	1311	
LB 310-380817/1-B	Method Blank	TCLP	Solid	1311	

Prep Batch: 380875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181434-1	ZCSF-02030323-002	TCLP	Solid	3510C	380817
LB 310-380817/1-B	Method Blank	TCLP	Solid	3510C	380817
LCS 310-380875/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 310-380875/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	

Analysis Batch: 381237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181434-1	ZCSF-02030323-002	TCLP	Solid	8082A	380875
LCSD 310-380875/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	380875

Analysis Batch: 381244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 310-380817/1-B	Method Blank	TCLP	Solid	8082A	380875
LCS 310-380875/2-A	Lab Control Sample	Total/NA	Solid	8082A	380875

Analysis Batch: 381839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181434-1	ZCSF-02030323-002	Total/NA	Solid	8082A	380789
MB 310-380789/1-A	Method Blank	Total/NA	Solid	8082A	380789

Analysis Batch: 381840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181434-1	ZCSF-02030323-002	Total/NA	Solid	8082A	380789

Analysis Batch: 381910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-380789/2-A	Lab Control Sample	Total/NA	Solid	8082A	380789
LCSD 310-380789/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	380789

Analysis Batch: 381966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181434-1	ZCSF-02030323-002	Total/NA	Solid	PCB	

Metals

Leach Batch: 380816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181434-1	ZCSF-02030323-002	TCLP	Solid	1311	
LB 310-380816/1-B	Method Blank	TCLP	Solid	1311	

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QC Association Summary

Client: CJF Associates, LLC
 Project/Site: Council Bluffs, Iowa, 1216

Job ID: 240-181434-1

Metals (Continued)

Leach Batch: 380816 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 310-380816/1-C	Method Blank	TCLP	Solid	1311	
LCS 310-380816/2-B	Lab Control Sample	TCLP	Solid	1311	
LCS 310-380816/2-C	Lab Control Sample	TCLP	Solid	1311	
240-181434-1 MS	ZCSF-02030323-002	TCLP	Solid	1311	

Prep Batch: 380997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181434-1	ZCSF-02030323-002	TCLP	Solid	3010A	380816
LB 310-380816/1-B	Method Blank	TCLP	Solid	3010A	380816
LCS 310-380816/2-B	Lab Control Sample	TCLP	Solid	3010A	380816

Prep Batch: 381108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181434-1	ZCSF-02030323-002	TCLP	Solid	7470A	380816
LB 310-380816/1-C	Method Blank	TCLP	Solid	7470A	380816
LCS 310-380816/2-C	Lab Control Sample	TCLP	Solid	7470A	380816
240-181434-1 MS	ZCSF-02030323-002	TCLP	Solid	7470A	380816

Analysis Batch: 381191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181434-1	ZCSF-02030323-002	TCLP	Solid	7470A	381108
LB 310-380816/1-C	Method Blank	TCLP	Solid	7470A	381108
LCS 310-380816/2-C	Lab Control Sample	TCLP	Solid	7470A	381108
240-181434-1 MS	ZCSF-02030323-002	TCLP	Solid	7470A	381108

Analysis Batch: 381265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181434-1	ZCSF-02030323-002	TCLP	Solid	6010D	380997
LB 310-380816/1-B	Method Blank	TCLP	Solid	6010D	380997
LCS 310-380816/2-B	Lab Control Sample	TCLP	Solid	6010D	380997

General Chemistry

Analysis Batch: 380677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181434-1	ZCSF-02030323-002	Total/NA	Solid	Moisture	

Analysis Batch: 380715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181434-1	ZCSF-02030323-002	Total/NA	Solid	D92	

Lab Chronicle

Client: CJF Associates, LLC
 Project/Site: Council Bluffs, Iowa, 1216

Job ID: 240-181434-1

Client Sample ID: ZCSF-02030323-002

Lab Sample ID: 240-181434-1

Date Collected: 03/03/23 14:00

Matrix: Solid

Date Received: 03/06/23 08:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			380817	FK4Z	EET CF	03/08/23 14:00 - 03/09/23 06:15 ¹
TCLP	Prep	3510C			380875	Y6AF	EET CF	03/09/23 08:28
TCLP	Analysis	8082A		1	381237	BW2O	EET CF	03/14/23 14:32
Total/NA	Analysis	PCB		1	381966	D2YP	EET CF	03/22/23 15:45
TCLP	Leach	1311			380816	FK4Z	EET CF	03/08/23 14:00 - 03/09/23 06:15 ¹
TCLP	Prep	3010A			380997	DHM5	EET CF	03/13/23 08:45
TCLP	Analysis	6010D		2	381265	XXW3	EET CF	03/13/23 16:43
TCLP	Leach	1311			380816	FK4Z	EET CF	03/08/23 14:00 - 03/09/23 06:15 ¹
TCLP	Prep	7470A			381108	DHM5	EET CF	03/13/23 10:10
TCLP	Analysis	7470A		1	381191	XXW3	EET CF	03/13/23 17:45
Total/NA	Analysis	D92		1	380715	WZC8	EET CF	03/07/23 16:55
Total/NA	Analysis	Moisture		1	380677	DGU1	EET CF	03/07/23 11:53

Client Sample ID: ZCSF-02030323-002

Lab Sample ID: 240-181434-1

Date Collected: 03/03/23 14:00

Matrix: Solid

Date Received: 03/06/23 08:55

Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550B			380789	GW4G	EET CF	03/08/23 12:23
Total/NA	Analysis	8082A		20	381840	BW2O	EET CF	03/22/23 11:09
Total/NA	Prep	3550B			380789	GW4G	EET CF	03/08/23 12:23
Total/NA	Analysis	8082A		1	381839	BW2O	EET CF	03/22/23 01:33

¹ Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: CJF Associates, LLC
Project/Site: Council Bluffs, Iowa, 1216

Job ID: 240-181434-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8082A	3510C	Solid	PCB-1268
8082A	3510C	Solid	Polychlorinated biphenyls, Total
8082A	3550B	Solid	PCB-1268
D92		Solid	Flashpoint
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids
PCB		Solid	Total PCBs

46145

Eurofins Canton
180 S. Van Buren Ave

Chain of Custody Record



Barberton, OH 44203-3543
phone 330.497.9396 fax 330.497.0772

Regulatory Program: DW NPDES RCRA Other:

COC No: 1 of 1 COCs
Eurofins Environment Testing America

Client Contact		Project Manager:		Site Contact:		Date:	
C/JF Associates 22324 Harper Ave St Clair Shores, MI 48080 (248) 227-5171 Phone (xxx) xxx-xxxx FAX		Email: Tel/Fax:		Lab Contact:		Carrier:	
Project Name: Alter ZC Site: Council Bluffs, Iowa P O # 1216-01		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Perform MS / MSD (Y / N)		For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.:	
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes:	
ZCSF-030323-002	3/3/2023	2:00PM			5	hold	
ZCSF-030323-002 - DUP	3/3/2023	2:00PM			5		



Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
 Non-Hazard Flammable Skin Irritant Poison B Unknown
Special Instructions/QC Requirements & Comments: SAMPLE IS ASR FROM IOWA, NEEDS IOWA CERTIFIED LAB.

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temp. (°C): Obs'd: _____		Therm ID No.: _____	
Relinquished by: <i>Charles Ray</i>		Received by: <i>Dorell Swartz</i>		Date/Time: <i>3-3-23 2:00</i>	
Relinquished by:		Received by:		Date/Time: <i>3-3-23 855</i>	
Relinquished by:		Received in Laboratory by:		Date/Time:	



Eurofins - Canton Sample Receipt Form/Narrative Login #: 181434
Barberton Facility

Client: CJF Associates Site Name: _____ Cooler unpacked by: Rachelle Haidt
Cooler Received on: 3/6/23 Opened on: 3/6/23
FedEx: 1st Grd. Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN # IR-13 (CF -0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
IR GUN # IR-16 (CF -0.1 °C) Observed Cooler Temp. 4.6 °C Corrected Cooler Temp. 4.5 °C
IR GUN # IR-17 (CF -0.3 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No

If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC293086
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____
Concerning: _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____



Environment Testing
America



240-181434 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>Canton</u>			
City/State:	CITY	STATE	Project:
		<u>OH</u>	
Receipt Information			
Date/Time Received:	DATE	TIME	Received By:
	<u>3/7/23</u>	<u>0900</u>	<u>[Signature]</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____
Multiple Coolers?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler # _____ of _____
Cooler Custody Seals Present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID:		Correction Factor (°C)	
<u>T</u>		<u>0.1</u>	
Temp Blank Temperature - If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C):		Corrected Temp (°C):	
Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
	<u>Soil jar - 4oz</u>		
Uncorrected Temp (°C):	<u>0.3</u>		
Corrected Temp (°C):	<u>0.4</u>		
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
a) If yes: Is there evidence that the chilling process began?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?)		<input type="checkbox"/> Yes	<input type="checkbox"/> No
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Login Sample Receipt Checklist

Client: CJF Associates, LLC

Job Number: 240-181434-1

Login Number: 181434

List Number: 2

Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

List Creation: 03/07/23 10:07 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	