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December 20, 2022

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 – Davenport, Iowa
4th Quarter 2022 - December 2022

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

Summary

- PCB concentration this quarter: 1.3 mg/kg;
- Ten-Sample Rolling PCB Average: 16.52 mg/kg;
- PCB 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.

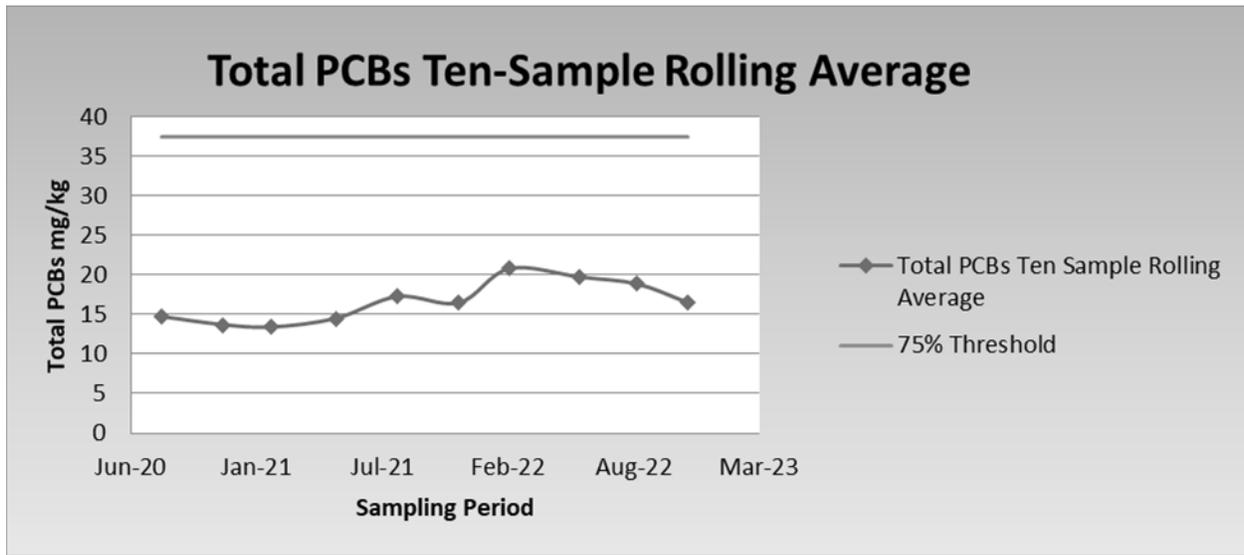
Details

In order to characterize the fluff, samples were collected and analyzed from the bulk seven-day composite sample. The composite sample was collected from October 11, 2022 through October 20, 2022 in accordance with IAC 567, Chapter 118. Samples were analyzed for total Polychlorinated Biphenyls (PCBs), Toxic Characteristic Leaching Procedure (TCLP) PCBs, and TCLP Resource Conservation and Recovery Act (RCRA) metals.

Total PCB results for the sampling period totaled 1.3 mg/kg. TCLP PCBs were not detected above the laboratory reporting limit. Cadmium was the only RCRA metal identified above the laboratory reporting limits but below regulatory TCLP concentrations. Lead was not detected above the reporting limit of 0.30 mg/L which does not exceed the regulatory TCLP concentration of 5.0 mg/L. The present ten-sample rolling average for PCBs is 16.52 mg/kg. Rolling averages of the ten-sampling period results for total PCBs are presented below:



December 20, 2022



Fourth quarter analytical results are summarized as follows:

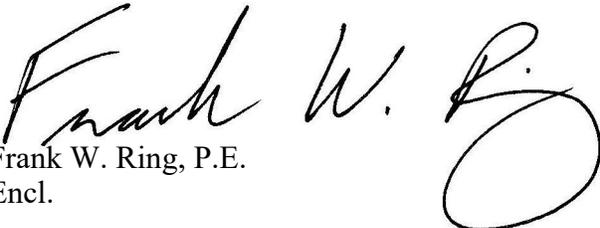
Sample ID	Analyte										Ignitability ²
	Total PCBs ¹	TCLP PCBs	TCLP Arsenic	TCLP Barium	TCLP Cad	TCLP Chrom	TCLP Lead	TCLP Sel	TCLP Silver	TCLP Mercury	
ZDSF-112122-001	1.3	ND	ND	ND	0.2	ND	ND	ND	ND	ND	NA

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: Patrick Kohlmeier, Alter
 Brian Seals, Waste Commission of Scott County
 Casey Reitz, Waste Commission of Scott County

ATTACHMENT A

LABORATORY ANALYTICAL RESULTS

 **ANALYTICAL REPORT****PREPARED FOR**

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

Generated 12/16/2022 7:47:29 AM

JOB DESCRIPTION

Alter ZD, 1217-01

JOB NUMBER

240-176906-1

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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Authorized for release by
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Definitions/Glossary

Client: CJF Associates, LLC
Project/Site: Alter ZD, 1217-01

Job ID: 240-176906-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.

General Chemistry

Qualifier	Qualifier Description
F3	Duplicate RPD exceeds the control limit

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: Alter ZD, 1217-01

Job ID: 240-176906-1

Job ID: 240-176906-1

Laboratory: Eurofins Canton

Narrative

Job Narrative 240-176906-1

Comments

No additional comments.

Receipt

The samples were received on 11/22/2022 9:40 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 5.1° C.

GC Semi VOA

Method 8082A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 310-373256 and 310-373338 and analytical batch 310-373998 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8082A: The continuing calibration verification (CCV) associated with batch 310-374023 recovered above the upper control limit for PCB-1221 PCB-1254. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8082A: The following sample was diluted due to the nature of the sample matrix: ZDSF-112122-001 (240-176906-1). Elevated reporting limits (RLs) are provided.

Method 8082A: Surrogate recovery for the following sample was outside control limits: ZDSF-112122-001 (240-176906-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

Metals

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

General Chemistry

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

Organic Prep

Method 1311: The following sample was tumbled in plastic due to matrix: ZDSF-112122-001 (240-176906-1).

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: Alter ZD, 1217-01

Job ID: 240-176906-1

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
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:

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: Alter ZD, 1217-01

Job ID: 240-176906-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-176906-1	ZDSF-112122-001	Solid	11/21/22 12:00	11/22/22 09:40

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Detection Summary

Client: CJF Associates, LLC
Project/Site: Alter ZD, 1217-01

Job ID: 240-176906-1

Client Sample ID: ZDSF-112122-001

Lab Sample ID: 240-176906-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	1.3		0.24	0.026	mg/Kg	10	✱	8082A	Total/NA
Total PCBs	1.3		0.24	0.064	mg/Kg	1		PCB	Total/NA
Cadmium	0.20		0.060	0.023	mg/L	3		6010D	TCLP

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: CJF Associates, LLC
Project/Site: Alter ZD, 1217-01

Job ID: 240-176906-1

Client Sample ID: ZDSF-112122-001

Lab Sample ID: 240-176906-1

Date Collected: 11/21/22 12:00

Matrix: Solid

Date Received: 11/22/22 09:40

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		11/30/22 07:47	12/06/22 21:47	1
PCB-1221	ND		4.0	1.3	ug/L		11/30/22 07:47	12/06/22 21:47	1
PCB-1232	ND		4.0	1.3	ug/L		11/30/22 07:47	12/06/22 21:47	1
PCB-1242	ND		4.0	1.3	ug/L		11/30/22 07:47	12/06/22 21:47	1
PCB-1248	ND		4.0	1.1	ug/L		11/30/22 07:47	12/06/22 21:47	1
PCB-1254	ND		4.0	1.1	ug/L		11/30/22 07:47	12/06/22 21:47	1
PCB-1260	ND		4.0	1.1	ug/L		11/30/22 07:47	12/06/22 21:47	1
PCB-1268	ND		4.0	1.1	ug/L		11/30/22 07:47	12/06/22 21:47	1
Polychlorinated biphenyls, Total	ND		4.0	1.3	ug/L		11/30/22 07:47	12/06/22 21:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	35		10 - 119				11/30/22 07:47	12/06/22 21:47	1
Tetrachloro-m-xylene	53		14 - 110				11/30/22 07:47	12/06/22 21:47	1

Method: TAL SOP PCB - Total PCB Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total PCBs	1.3		0.24	0.064	mg/Kg			12/15/22 14:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.60	0.30	mg/L		11/30/22 11:00	12/05/22 21:13	3
Barium	ND		1.5	0.33	mg/L		11/30/22 11:00	12/05/22 21:13	3
Cadmium	0.20		0.060	0.023	mg/L		11/30/22 11:00	12/05/22 21:13	3
Chromium	ND		0.060	0.026	mg/L		11/30/22 11:00	12/05/22 21:13	3
Lead	ND		0.30	0.15	mg/L		11/30/22 11:00	12/05/22 21:13	3
Selenium	ND		0.30	0.20	mg/L		11/30/22 11:00	12/05/22 21:13	3
Silver	ND		0.060	0.028	mg/L		11/30/22 11:00	12/05/22 21:13	3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0020	0.0012	mg/L		11/30/22 16:12	12/01/22 13:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	13.4		0.1	0.1	%			11/23/22 16:49	1
Percent Solids (EPA Moisture)	86.6		0.1	0.1	%			11/23/22 16:49	1

Client Sample Results

Client: CJF Associates, LLC
 Project/Site: Alter ZD, 1217-01

Job ID: 240-176906-1

Client Sample ID: ZDSF-112122-001

Lab Sample ID: 240-176906-1

Date Collected: 11/21/22 12:00

Matrix: Solid

Date Received: 11/22/22 09:40

Percent Solids: 86.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.24	0.0062	mg/Kg	☼	11/28/22 12:54	12/14/22 22:38	10
PCB-1221	ND		0.24	0.064	mg/Kg	☼	11/28/22 12:54	12/14/22 22:38	10
PCB-1232	ND		0.24	0.024	mg/Kg	☼	11/28/22 12:54	12/14/22 22:38	10
PCB-1242	1.3		0.24	0.026	mg/Kg	☼	11/28/22 12:54	12/14/22 22:38	10
PCB-1248	ND		0.24	0.016	mg/Kg	☼	11/28/22 12:54	12/14/22 22:38	10
PCB-1254	ND		0.24	0.015	mg/Kg	☼	11/28/22 12:54	12/14/22 22:38	10
PCB-1260	ND		0.24	0.0081	mg/Kg	☼	11/28/22 12:54	12/14/22 22:38	10
PCB-1268	ND		0.24	0.0033	mg/Kg	☼	11/28/22 12:54	12/14/22 22:38	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>DCB Decachlorobiphenyl (Surr)</i>	40		10 - 136				11/28/22 12:54	12/14/22 22:38	10
<i>Tetrachloro-m-xylene</i>	20	S1-	21 - 110				11/28/22 12:54	12/14/22 22:38	10

Surrogate Summary

Client: CJF Associates, LLC
Project/Site: Alter ZD, 1217-01

Job ID: 240-176906-1

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	DCB1 (10-136)	TCX1 (21-110)
240-176906-1	ZDSF-112122-001	40	20 S1-
LCS 310-373111/2-A	Lab Control Sample	67	73
LCS D 310-373111/3-A	Lab Control Sample Dup	59	69
MB 310-373111/1-A	Method Blank	54	63

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 (10-119)	TCX1 (14-110)
LCS 310-373338/2-A	Lab Control Sample	54	68

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 (10-119)	TCX1 (14-110)
240-176906-1	ZDSF-112122-001	35	53
LB 310-373256/1-C	Method Blank	55	77

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

QC Sample Results

Client: CJF Associates, LLC
Project/Site: Alter ZD, 1217-01

Job ID: 240-176906-1

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

Lab Sample ID: MB 310-373111/1-A
Matrix: Solid
Analysis Batch: 373999

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 373111

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.024	0.00063	mg/Kg		11/28/22 12:54	12/06/22 19:49	1
PCB-1221	ND		0.024	0.0065	mg/Kg		11/28/22 12:54	12/06/22 19:49	1
PCB-1232	ND		0.024	0.0024	mg/Kg		11/28/22 12:54	12/06/22 19:49	1
PCB-1242	ND		0.024	0.0026	mg/Kg		11/28/22 12:54	12/06/22 19:49	1
PCB-1248	ND		0.024	0.0017	mg/Kg		11/28/22 12:54	12/06/22 19:49	1
PCB-1254	ND		0.024	0.0016	mg/Kg		11/28/22 12:54	12/06/22 19:49	1
PCB-1260	ND		0.024	0.00083	mg/Kg		11/28/22 12:54	12/06/22 19:49	1
PCB-1268	ND		0.024	0.00034	mg/Kg		11/28/22 12:54	12/06/22 19:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	54		10 - 136	11/28/22 12:54	12/06/22 19:49	1
Tetrachloro-m-xylene	63		21 - 110	11/28/22 12:54	12/06/22 19:49	1

Lab Sample ID: LCS 310-373111/2-A
Matrix: Solid
Analysis Batch: 373999

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 373111

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	0.199	0.223		mg/Kg		112	33 - 113
PCB-1260	0.199	0.215		mg/Kg		108	30 - 111

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	67		10 - 136
Tetrachloro-m-xylene	73		21 - 110

Lab Sample ID: LCSD 310-373111/3-A
Matrix: Solid
Analysis Batch: 373999

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 373111

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	0.194	0.210		mg/Kg		108	33 - 113	6	34
PCB-1260	0.194	0.186		mg/Kg		96	30 - 111	15	29

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	59		10 - 136
Tetrachloro-m-xylene	69		21 - 110

Lab Sample ID: LCS 310-373338/2-A
Matrix: Solid
Analysis Batch: 374023

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 373338

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	12.5	12.0		ug/L		96	21 - 119
PCB-1260	12.5	9.31		ug/L		75	18 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	54		10 - 119

Eurofins Canton

QC Sample Results

Client: CJF Associates, LLC
Project/Site: Alter ZD, 1217-01

Job ID: 240-176906-1

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

Lab Sample ID: LCS 310-373338/2-A
Matrix: Solid
Analysis Batch: 374023

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 373338

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	68		14 - 110

Lab Sample ID: LB 310-373256/1-C
Matrix: Solid
Analysis Batch: 373998

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 373338

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	ND		4.0	1.3	ug/L		11/30/22 07:47	12/06/22 20:42	1
PCB-1221	ND		4.0	1.3	ug/L		11/30/22 07:47	12/06/22 20:42	1
PCB-1232	ND		4.0	1.3	ug/L		11/30/22 07:47	12/06/22 20:42	1
PCB-1242	ND		4.0	1.3	ug/L		11/30/22 07:47	12/06/22 20:42	1
PCB-1248	ND		4.0	1.1	ug/L		11/30/22 07:47	12/06/22 20:42	1
PCB-1254	ND		4.0	1.1	ug/L		11/30/22 07:47	12/06/22 20:42	1
PCB-1260	ND		4.0	1.1	ug/L		11/30/22 07:47	12/06/22 20:42	1
PCB-1268	ND		4.0	1.1	ug/L		11/30/22 07:47	12/06/22 20:42	1
Polychlorinated biphenyls, Total	ND		4.0	1.3	ug/L		11/30/22 07:47	12/06/22 20:42	1

Surrogate	LB LB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr)	55		10 - 119	11/30/22 07:47	12/06/22 20:42	1
Tetrachloro-m-xylene	77		14 - 110	11/30/22 07:47	12/06/22 20:42	1

Method: 6010D - Metals (ICP)

Lab Sample ID: LB 310-373255/1-B
Matrix: Solid
Analysis Batch: 373821

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 373368

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		0.20	0.10	mg/L		11/30/22 11:00	12/02/22 17:10	1
Barium	ND		0.50	0.11	mg/L		11/30/22 11:00	12/02/22 17:10	1
Cadmium	ND		0.020	0.0078	mg/L		11/30/22 11:00	12/02/22 17:10	1
Chromium	ND		0.020	0.0087	mg/L		11/30/22 11:00	12/02/22 17:10	1
Lead	ND		0.10	0.050	mg/L		11/30/22 11:00	12/02/22 17:10	1
Selenium	ND		0.10	0.067	mg/L		11/30/22 11:00	12/02/22 17:10	1
Silver	ND		0.020	0.0094	mg/L		11/30/22 11:00	12/02/22 17:10	1

Lab Sample ID: LCS 310-373255/2-B
Matrix: Solid
Analysis Batch: 373821

Client Sample ID: Lab Control Sample
Prep Type: TCLP
Prep Batch: 373368

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Arsenic	4.00	4.14		mg/L		103	80 - 120
Barium	2.00	2.03		mg/L		102	80 - 120
Cadmium	2.00	2.06		mg/L		103	80 - 120
Chromium	2.00	1.89		mg/L		95	80 - 120
Lead	4.00	3.94		mg/L		98	80 - 120
Selenium	8.00	8.87		mg/L		111	80 - 120
Silver	2.00	2.20		mg/L		110	80 - 120

Eurofins Canton

QC Sample Results

Client: CJF Associates, LLC
Project/Site: Alter ZD, 1217-01

Job ID: 240-176906-1

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

Lab Sample ID: 240-176906-1 MS
Matrix: Solid
Analysis Batch: 373928

Client Sample ID: ZDSF-112122-001
Prep Type: TCLP
Prep Batch: 373368

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Arsenic	ND		4.00	4.30		mg/L		107		75 - 125
Barium	ND		2.00	2.19		mg/L		109		75 - 125
Cadmium	0.20		2.00	2.16		mg/L		98		75 - 125
Chromium	ND		2.00	1.97		mg/L		98		75 - 125
Lead	ND		4.00	3.87		mg/L		97		75 - 125
Selenium	ND		8.00	8.57		mg/L		107		75 - 125
Silver	ND		2.00	2.10		mg/L		105		75 - 125

Method: 7470A - Mercury (CVAA)

Lab Sample ID: LB 310-373255/1-C
Matrix: Solid
Analysis Batch: 373584

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 373433

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.0020	0.0012	mg/L		11/30/22 16:12	12/01/22 12:58	1

Lab Sample ID: LCS 310-373255/2-C
Matrix: Solid
Analysis Batch: 373584

Client Sample ID: Lab Control Sample
Prep Type: TCLP
Prep Batch: 373433

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec	Limits
		Result	Qualifier					
Mercury	0.0167	0.0150		mg/L		90		80 - 120

Lab Sample ID: 240-176906-1 MS
Matrix: Solid
Analysis Batch: 373584

Client Sample ID: ZDSF-112122-001
Prep Type: TCLP
Prep Batch: 373433

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Mercury	ND		0.0167	0.0143		mg/L		86		80 - 120

Method: Moisture - Percent Moisture

Lab Sample ID: 240-176906-C-2 DU
Matrix: Solid
Analysis Batch: 373005

Client Sample ID: 240-176906-C-2 DU
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier		Result				Qualifier	Limit
Percent Moisture	10.9		17.1	F3	%		44	39	
Percent Solids	89.1		82.9		%		7	10	

QC Association Summary

Client: CJF Associates, LLC
Project/Site: Alter ZD, 1217-01

Job ID: 240-176906-1

GC Semi VOA

Prep Batch: 373111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176906-1	ZDSF-112122-001	Total/NA	Solid	3550B	
MB 310-373111/1-A	Method Blank	Total/NA	Solid	3550B	
LCS 310-373111/2-A	Lab Control Sample	Total/NA	Solid	3550B	
LCSD 310-373111/3-A	Lab Control Sample Dup	Total/NA	Solid	3550B	

Leach Batch: 373256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176906-1	ZDSF-112122-001	TCLP	Solid	1311	
LB 310-373256/1-C	Method Blank	TCLP	Solid	1311	

Prep Batch: 373338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176906-1	ZDSF-112122-001	TCLP	Solid	3510C	373256
LB 310-373256/1-C	Method Blank	TCLP	Solid	3510C	373256
LCS 310-373338/2-A	Lab Control Sample	Total/NA	Solid	3510C	

Analysis Batch: 373998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176906-1	ZDSF-112122-001	TCLP	Solid	8082A	373338
LB 310-373256/1-C	Method Blank	TCLP	Solid	8082A	373338

Analysis Batch: 373999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-373111/1-A	Method Blank	Total/NA	Solid	8082A	373111
LCS 310-373111/2-A	Lab Control Sample	Total/NA	Solid	8082A	373111
LCSD 310-373111/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	373111

Analysis Batch: 374023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-373338/2-A	Lab Control Sample	Total/NA	Solid	8082A	373338

Analysis Batch: 374830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176906-1	ZDSF-112122-001	Total/NA	Solid	8082A	373111

Analysis Batch: 374962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176906-1	ZDSF-112122-001	Total/NA	Solid	PCB	

Metals

Leach Batch: 373255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176906-1	ZDSF-112122-001	TCLP	Solid	1311	
LB 310-373255/1-B	Method Blank	TCLP	Solid	1311	
LB 310-373255/1-C	Method Blank	TCLP	Solid	1311	
LCS 310-373255/2-B	Lab Control Sample	TCLP	Solid	1311	
LCS 310-373255/2-C	Lab Control Sample	TCLP	Solid	1311	
240-176906-1 MS	ZDSF-112122-001	TCLP	Solid	1311	

QC Association Summary

Client: CJF Associates, LLC
Project/Site: Alter ZD, 1217-01

Job ID: 240-176906-1

Metals

Prep Batch: 373368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176906-1	ZDSF-112122-001	TCLP	Solid	3010A	373255
LB 310-373255/1-B	Method Blank	TCLP	Solid	3010A	373255
LCS 310-373255/2-B	Lab Control Sample	TCLP	Solid	3010A	373255
240-176906-1 MS	ZDSF-112122-001	TCLP	Solid	3010A	373255

Prep Batch: 373433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176906-1	ZDSF-112122-001	TCLP	Solid	7470A	373255
LB 310-373255/1-C	Method Blank	TCLP	Solid	7470A	373255
LCS 310-373255/2-C	Lab Control Sample	TCLP	Solid	7470A	373255
240-176906-1 MS	ZDSF-112122-001	TCLP	Solid	7470A	373255

Analysis Batch: 373584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176906-1	ZDSF-112122-001	TCLP	Solid	7470A	373433
LB 310-373255/1-C	Method Blank	TCLP	Solid	7470A	373433
LCS 310-373255/2-C	Lab Control Sample	TCLP	Solid	7470A	373433
240-176906-1 MS	ZDSF-112122-001	TCLP	Solid	7470A	373433

Analysis Batch: 373821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 310-373255/1-B	Method Blank	TCLP	Solid	6010D	373368
LCS 310-373255/2-B	Lab Control Sample	TCLP	Solid	6010D	373368

Analysis Batch: 373928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176906-1	ZDSF-112122-001	TCLP	Solid	6010D	373368
240-176906-1 MS	ZDSF-112122-001	TCLP	Solid	6010D	373368

General Chemistry

Analysis Batch: 373005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176906-1	ZDSF-112122-001	Total/NA	Solid	Moisture	
240-176906-C-2 DU	240-176906-C-2 DU	Total/NA	Solid	Moisture	

Lab Chronicle

Client: CJF Associates, LLC
 Project/Site: Alter ZD, 1217-01

Job ID: 240-176906-1

Client Sample ID: ZDSF-112122-001

Lab Sample ID: 240-176906-1

Date Collected: 11/21/22 12:00

Matrix: Solid

Date Received: 11/22/22 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			373256	FK4Z	EET CF	11/29/22 14:30 - 11/30/22 06:30 ¹
TCLP	Prep	3510C			373338	Y6AF	EET CF	11/30/22 07:47
TCLP	Analysis	8082A		1	373998	BW2O	EET CF	12/06/22 21:47
Total/NA	Analysis	PCB		1	374962	D2YP	EET CF	12/15/22 14:34
TCLP	Leach	1311			373255	FK4Z	EET CF	11/29/22 14:30 - 11/30/22 06:30 ¹
TCLP	Prep	3010A			373368	QTZ5	EET CF	11/30/22 11:00
TCLP	Analysis	6010D		3	373928	ZRI4	EET CF	12/05/22 21:13
TCLP	Leach	1311			373255	FK4Z	EET CF	11/29/22 14:30 - 11/30/22 06:30 ¹
TCLP	Prep	7470A			373433	XXW3	EET CF	11/30/22 16:12
TCLP	Analysis	7470A		1	373584	XXW3	EET CF	12/01/22 13:03
Total/NA	Analysis	Moisture		1	373005	A3GU	EET CF	11/23/22 16:49

Client Sample ID: ZDSF-112122-001

Lab Sample ID: 240-176906-1

Date Collected: 11/21/22 12:00

Matrix: Solid

Date Received: 11/22/22 09:40

Percent Solids: 86.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550B			373111	GW4G	EET CF	11/28/22 12:54
Total/NA	Analysis	8082A		10	374830	BW2O	EET CF	12/14/22 22:38

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: Alter ZD, 1217-01

Job ID: 240-176906-1

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
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids
PCB		Solid	Total PCBs

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

Client CJF Assoc Site Name _____ Cooler unpacked by: [Signature]
Cooler Received on 11-22-22 Opened on 11-22-22
FedEx: 1st Grd (Exp) UPS FAS Clipper Client Drop Off Eurofins Courier Other _____
Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EL 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 _____

- Cooler temperature upon receipt See Multiple Cooler Form
IR GUN# IR-13 (CF +0.7 °C) Observed Cooler Temp. 4.4 °C Corrected Cooler Temp. 5.1 °C
IR GUN #IR-15 (CF 0.0°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
- 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
-Were tamper/custody seals intact and uncompromised? Yes No NA
- Shippers' packing slip attached to the cooler(s)? Yes No
- Did custody papers accompany the sample(s)? Yes No
- Were the custody papers relinquished & signed in the appropriate place? Yes No
- Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
- Did all bottles arrive in good condition (Unbroken)? Yes No
- Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
- For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
- Were correct bottle(s) used for the test(s) indicated? Yes No
- Sufficient quantity received to perform indicated analyses? Yes No
- 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.

- Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC286797
- Were VOAs on the COC? Yes No NA
- Were air bubbles >6 mm in any VOA vials? Yes Larger than this. Yes No NA
- Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No NA
- Was a LL Hg or Me Hg trip blank present? Yes No NA

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

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

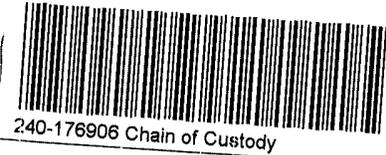
18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____
The IDs on the COC = ZDSF-112122-001 and 001-Dup
The IDs on the Containers = ZDSF-112122-002 and 002-Dup 11-22-22

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



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>11/23/22</u>	<u>0935</u>	<u>ST</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: <u>N</u>		Correction Factor (°C): <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>250 NT</u>		
Uncorrected Temp (°C):	<u>1.4</u>		
Corrected Temp (°C):	<u>1.3</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: 240-176906-1

Login Number: 176906

List Number: 2

Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

List Creation: 11/23/22 12:39 PM

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	

