



Fremont
Analytical

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Fulcrum Environmental

Ryan Mathews
406 N. 2nd Street
Yakima, WA 98901

RE: Kennewick SD Drinking Water - Edison Elementary
Work Order Number: 1703040

March 10, 2017

Attention Ryan Mathews:

Fremont Analytical, Inc. received 36 sample(s) on 3/6/2017 for the analyses presented in the following report.

Drinking Water Metals by EPA Method 200.8

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward
Project Manager

CC:
Amanda Enbysk

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Edison Ele
Work Order: 1703040

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1703040-001	EDE3417-P-CF-05	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-002	EDE3417-S-CF-05	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-003	EDE3417-T-CF-05	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-004	EDE3417-P-CDF-06	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-005	EDE3417-P-CDF-08	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-006	EDE3417-P-CDF-10	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-007	EDE3417-P-CDF-12	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-008	EDE3417-P-CF-13	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-009	EDE3417-S-CF-13	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-010	EDE3417-T-CF-13	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-011	EDE3417-P-CDF-14	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-012	EDE3417-P-CDF-16	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-013	EDE3417-P-CF-17	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-014	EDE3417-P-CDF-18	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-015	EDE3417-P-CF-19	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-016	EDE3417-P-CF-22	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-017	EDE3417-P-CDF-24	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-018	EDE3417-S-CDF-24	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-019	EDE3417-T-CDF-24	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-020	EDE3417-P-CF-25	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-021	EDE3417-P-CDF-27	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-022	EDE3417-P-CF-28	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-023	EDE3417-P-CDF-30	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-024	EDE3417-P-CF-31	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-025	EDE3417-P-CDF-33	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-026	EDE3417-P-CDF-35	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-027	EDE3417-P-CF-36	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-028	EDE3417-P-CF-37	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-029	EDE3417-S-CF-37	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-030	EDE3417-T-CF-37	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-031	EDE3417-P-CDF-38	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-032	EDE3417-P-CF-39	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-033	EDE3417-P-CDF-43	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-034	EDE3417-P-KF-45	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-035	EDE3417-P-DF-46	03/04/2017 10:30 AM	03/06/2017 8:47 AM
1703040-036	EDE3417-P-CF-09	03/04/2017 10:30 AM	03/06/2017 8:47 AM

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Edison Elementary

WorkOrder Narrative:

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Prep Sample Comments:

1703040-001A 209701: Prep Comments for EPA200.8, Sample 1703040-001A: Turbidity: 0.00 NTU
1703040-004A 209705: Prep Comments for EPA200.8, Sample 1703040-004A: Turbidity: 0.01 NTU
1703040-005A 209706: Prep Comments for EPA200.8, Sample 1703040-005A: Turbidity: 0.01 NTU
1703040-006A 209707: Prep Comments for EPA200.8, Sample 1703040-006A: Turbidity: 0.00 NTU
1703040-007A 209708: Prep Comments for EPA200.8, Sample 1703040-007A: Turbidity: 0.00 NTU
1703040-008A 209709: Prep Comments for EPA200.8, Sample 1703040-008A: Turbidity: 0.04 NTU
1703040-011A 209710: Prep Comments for EPA200.8, Sample 1703040-011A: Turbidity: 0.00 NTU
1703040-012A 209711: Prep Comments for EPA200.8, Sample 1703040-012A: Turbidity: 0.00 NTU
1703040-013A 209712: Prep Comments for EPA200.8, Sample 1703040-013A: Turbidity: 0.01 NTU
1703040-014A 209713: Prep Comments for EPA200.8, Sample 1703040-014A: Turbidity: 0.05 NTU
1703040-015A 209714: Prep Comments for EPA200.8, Sample 1703040-015A: Turbidity: 0.04 NTU
1703040-016A 209715: Prep Comments for EPA200.8, Sample 1703040-016A: Turbidity: 0.01 NTU
1703040-017A 209716: Prep Comments for EPA200.8, Sample 1703040-017A: Turbidity: 0.00 NTU
1703040-020A 209717: Prep Comments for EPA200.8, Sample 1703040-020A: Turbidity: 0.00 NTU
1703040-021A 209718: Prep Comments for EPA200.8, Sample 1703040-021A: Turbidity: 0.00 NTU
1703040-022A 209719: Prep Comments for EPA200.8, Sample 1703040-022A: Turbidity: 0.00 NTU
1703040-023A 209720: Prep Comments for EPA200.8, Sample 1703040-023A: Turbidity: 0.00 NTU
1703040-024A 209721: Prep Comments for EPA200.8, Sample 1703040-024A: Turbidity: 0.00 NTU
1703040-025A 209722: Prep Comments for EPA200.8, Sample 1703040-025A: Turbidity: 0.00 NTU
1703040-026A 209723: Prep Comments for EPA200.8, Sample 1703040-026A: Turbidity: 0.00 NTU
1703040-027A 209726: Prep Comments for EPA200.8, Sample 1703040-027A: Turbidity: 0.00 NTU
1703040-028A 209730: Prep Comments for EPA200.8, Sample 1703040-028A: Turbidity: 0.00 NTU
1703040-031A 209731: Prep Comments for EPA200.8, Sample 1703040-031A: Turbidity: 0.00 NTU
1703040-032A 209732: Prep Comments for EPA200.8, Sample 1703040-032A: Turbidity: 0.00 NTU
1703040-033A 209733: Prep Comments for EPA200.8, Sample 1703040-033A: Turbidity: 0.00 NTU
1703040-034A 209734: Prep Comments for EPA200.8, Sample 1703040-034A: Turbidity: 0.00 NTU
1703040-035A 209735: Prep Comments for EPA200.8, Sample 1703040-035A: Turbidity: 0.00 NTU
1703040-036A 209736: Prep Comments for EPA200.8, Sample 1703040-036A: Turbidity: 0.00 NTU

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

Work Order: 1703040
Date Reported: 3/10/2017

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Edison Elementary

Lab ID: 1703040-001
Client Sample ID: EDE3417-P-CF-05
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427	Analyst: TN	
Copper	565	0.500		µg/L	1	3/10/2017 2:15:17 PM

Lab ID: 1703040-004
Client Sample ID: EDE3417-P-CDF-06
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427	Analyst: TN	
Copper	799	0.500		µg/L	1	3/10/2017 2:39:29 PM

Lab ID: 1703040-005
Client Sample ID: EDE3417-P-CDF-08
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427	Analyst: TN	
Copper	1,050	0.500		µg/L	1	3/10/2017 2:43:31 PM



Analytical Report

Work Order: 1703040
Date Reported: 3/10/2017

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Edison Elementary

Lab ID: 1703040-006
Client Sample ID: EDE3417-P-CDF-10
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427	Analyst: TN	
Copper	914	0.500		µg/L	1	3/10/2017 2:47:33 PM

Lab ID: 1703040-007
Client Sample ID: EDE3417-P-CDF-12
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427	Analyst: TN	
Copper	787	0.500		µg/L	1	3/10/2017 2:51:34 PM

Lab ID: 1703040-008
Client Sample ID: EDE3417-P-CF-13
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427	Analyst: TN	
Copper	633	0.500		µg/L	1	3/10/2017 2:55:36 PM



Analytical Report

Work Order: 1703040
Date Reported: 3/10/2017

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Edison Elementary

Lab ID: 1703040-011
Client Sample ID: EDE3417-P-CDF-14
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427		Analyst: TN
Copper	908	0.500		µg/L	1	3/10/2017 2:59:37 PM

Lab ID: 1703040-012
Client Sample ID: EDE3417-P-CDF-16
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427		Analyst: TN
Copper	786	0.500		µg/L	1	3/10/2017 3:03:39 PM

Lab ID: 1703040-013
Client Sample ID: EDE3417-P-CF-17
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427		Analyst: TN
Copper	603	0.500		µg/L	1	3/10/2017 3:15:46 PM



Analytical Report

Work Order: 1703040
Date Reported: 3/10/2017

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Edison Elementary

Lab ID: 1703040-014
Client Sample ID: EDE3417-P-CDF-18
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427	Analyst: TN	
Copper	1,040	0.500		µg/L	1	3/10/2017 3:19:48 PM

Lab ID: 1703040-015
Client Sample ID: EDE3417-P-CF-19
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427	Analyst: TN	
Copper	965	0.500		µg/L	1	3/10/2017 3:23:49 PM

Lab ID: 1703040-016
Client Sample ID: EDE3417-P-CF-22
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427	Analyst: TN	
Copper	867	0.500		µg/L	1	3/10/2017 3:27:51 PM



Analytical Report

Work Order: 1703040
Date Reported: 3/10/2017

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Edison Elementary

Lab ID: 1703040-017
Client Sample ID: EDE3417-P-CDF-24
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427	Analyst: TN	
Copper	838	0.500		µg/L	1	3/10/2017 3:31:53 PM

Lab ID: 1703040-020
Client Sample ID: EDE3417-P-CF-25
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427	Analyst: TN	
Copper	763	0.500		µg/L	1	3/10/2017 3:35:55 PM

Lab ID: 1703040-021
Client Sample ID: EDE3417-P-CDF-27
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427	Analyst: TN	
Copper	771	0.500		µg/L	1	3/10/2017 3:39:56 PM



Analytical Report

Work Order: 1703040
Date Reported: 3/10/2017

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Edison Elementary

Lab ID: 1703040-022
Client Sample ID: EDE3417-P-CF-28
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427	Analyst: TN	
Copper	704	0.500		µg/L	1	3/10/2017 3:43:58 PM

Lab ID: 1703040-023
Client Sample ID: EDE3417-P-CDF-30
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427	Analyst: TN	
Copper	1,040	0.500		µg/L	1	3/10/2017 3:48:00 PM

Lab ID: 1703040-024
Client Sample ID: EDE3417-P-CF-31
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427	Analyst: TN	
Copper	933	0.500		µg/L	1	3/10/2017 3:52:01 PM



Analytical Report

Work Order: 1703040
Date Reported: 3/10/2017

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Edison Elementary

Lab ID: 1703040-025
Client Sample ID: EDE3417-P-CDF-33
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427	Analyst: TN	
Copper	766	0.500		µg/L	1	3/10/2017 4:04:07 PM

Lab ID: 1703040-026
Client Sample ID: EDE3417-P-CDF-35
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16427	Analyst: TN	
Copper	986	0.500		µg/L	1	3/10/2017 4:08:09 PM

Lab ID: 1703040-027
Client Sample ID: EDE3417-P-CF-36
Collection Date: 3/4/2017 10:30:00 AM
Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Drinking Water Metals by EPA Method 200.8</u>				Batch ID: 16428	Analyst: TN	
Copper	762	0.500		µg/L	1	3/10/2017 4:24:16 PM



Analytical Report

Work Order: 1703040
Date Reported: 3/10/2017

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Edison Elementary

Lab ID: 1703040-028

Client Sample ID: EDE3417-P-CF-37

Collection Date: 3/4/2017 10:30:00 AM

Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Drinking Water Metals by EPA Method 200.8

Batch ID: 16428

Analyst: TN

Copper	595	0.500		µg/L	1	3/10/2017 4:40:22 PM
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Lab ID: 1703040-031

Client Sample ID: EDE3417-P-CDF-38

Collection Date: 3/4/2017 10:30:00 AM

Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Drinking Water Metals by EPA Method 200.8

Batch ID: 16428

Analyst: TN

Copper	936	0.500		µg/L	1	3/10/2017 4:52:30 PM
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Lab ID: 1703040-032

Client Sample ID: EDE3417-P-CF-39

Collection Date: 3/4/2017 10:30:00 AM

Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Drinking Water Metals by EPA Method 200.8

Batch ID: 16428

Analyst: TN

Copper	769	0.500		µg/L	1	3/10/2017 4:56:31 PM
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Work Order: 1703040

Date Reported: 3/10/2017

CLIENT: Fulcrum Environmental

Project: Kennewick SD Drinking Water - Edison Elementary

Lab ID: 1703040-033

Client Sample ID: EDE3417-P-CDF-43

Collection Date: 3/4/2017 10:30:00 AM

Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Drinking Water Metals by EPA Method 200.8

Batch ID: 16428

Analyst: TN

Copper	795	0.500		µg/L	1	3/10/2017 5:00:33 PM
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Lab ID: 1703040-034

Client Sample ID: EDE3417-P-KF-45

Collection Date: 3/4/2017 10:30:00 AM

Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Drinking Water Metals by EPA Method 200.8

Batch ID: 16428

Analyst: TN

Copper	0.524	0.500		µg/L	1	3/10/2017 5:04:35 PM
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Lab ID: 1703040-035

Client Sample ID: EDE3417-P-DF-46

Collection Date: 3/4/2017 10:30:00 AM

Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Drinking Water Metals by EPA Method 200.8

Batch ID: 16428

Analyst: TN

Copper	1,110	0.500		µg/L	1	3/10/2017 5:08:37 PM
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Analytical Report

Work Order: 1703040

Date Reported: 3/10/2017

CLIENT: Fulcrum Environmental

Project: Kennewick SD Drinking Water - Edison Elementary

Lab ID: 1703040-036

Collection Date: 3/4/2017 10:30:00 AM

Client Sample ID: EDE3417-P-CF-09

Matrix: Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Drinking Water Metals by EPA Method 200.8

Batch ID: 16428

Analyst: TN

Copper	586	0.500		µg/L	1	3/10/2017 5:12:38 PM
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Work Order: 1703040
CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Edison Ele

QC SUMMARY REPORT

Drinking Water Metals by EPA Method 200.8

Sample ID	MB-16428	SampType:	MBLK	Units:	µg/L	Prep Date:	3/6/2017	RunNo:	34875		
Client ID:	MBLKW	Batch ID:	16428	Analysis Date:				3/10/2017	SeqNo:	665889	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Copper	ND	0.500									
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Sample ID	LCS-16428	SampType: LCS			Units: µg/L		Prep Date: 3/6/2017			RunNo: 34875		
Client ID:	LCSW	Batch ID: 16428			Analysis Date: 3/10/2017			SeqNo: 665890				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Copper	89.7	0.500	100.0	0	89.7	85	115				
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Sample ID	1703040-027ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	3/6/2017	RunNo:	34875		
Client ID:	EDE3417-P-CF-36	Batch ID:	16428	Analysis Date:	3/10/2017	SeqNo:	665892				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Copper	734	0.500						761.6	3.63	30	
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Sample ID	1703040-027AMS	SampType:	MS	Units:	µg/L	Prep Date:	3/6/2017	RunNo:	34875		
Client ID:	EDE3417-P-CF-36	Batch ID:	16428			Analysis Date:	3/10/2017	SeqNo:	665893		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Copper	941	0.500	200.0	761.6	89.7	70	130				
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Sample ID	1703040-027AMSD	SampType:	MSD	Units:	µg/L	Prep Date:	3/6/2017	RunNo:	34875		
Client ID:	EDE3417-P-CF-36	Batch ID:	16428			Analysis Date:	3/10/2017	SeqNo:	665894		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Copper	915	0.500	200.0	761.6	76.6	70	130	940.9	2.82	30	
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Work Order: 1703040
CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Edison Ele

QC SUMMARY REPORT

Drinking Water Metals by EPA Method 200.8

Sample ID	MB-16427	SampType:	MBLK	Units:	µg/L	Prep Date:	3/6/2017	RunNo:	34874		
Client ID:	MBLKW	Batch ID:	16427			Analysis Date:	3/10/2017	SeqNo:	665834		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Copper	ND	0.500									
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Sample ID	LCS-16427	SampType: LCS			Units: µg/L		Prep Date: 3/6/2017			RunNo: 34874		
Client ID:	LCSW	Batch ID: 16427			Analysis Date: 3/10/2017			SeqNo: 665835				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Copper	93.2	0.500	100.0	0	93.2	85	115				
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Sample ID	1703040-001ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	3/6/2017	RunNo:	34874		
Client ID:	EDE3417-P-CF-05	Batch ID:	16427			Analysis Date:	3/10/2017	SeqNo:	665839		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Copper	556	0.500						564.7	1.63	30	
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Sample ID	1703040-001AMS	SampType:	MS	Units:	µg/L	Prep Date:	3/6/2017	RunNo:	34874		
Client ID:	EDE3417-P-CF-05	Batch ID:	16427			Analysis Date:	3/10/2017	SeqNo:	665840		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Copper	745	0.500	200.0	564.7	90.1	70	130				
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Sample ID	1703040-001AMSD	SampType:	MSD	Units:	µg/L	Prep Date:	3/6/2017	RunNo:	34874		
Client ID:	EDE3417-P-CF-05	Batch ID:	16427			Analysis Date:	3/10/2017	SeqNo:	665841		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Copper	708	0.500	200.0	564.7	71.7	70	130	744.8	5.05	30	
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Work Order Number: **1703040**
Date Received: **3/6/2017 8:47:00 AM**

1. Is Chain of Custody complete?	Yes ☒	No ☐	Not Present ☐
2. How was the sample delivered?	FedEx		

3. Coolers are present?	Yes ☒	No ☐	NA ☐
4. Shipping container/cooler in good condition?	Yes ☒	No ☐	
5. Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Required ☒
6. Was an attempt made to cool the samples?	Yes ☒	No ☐	NA ☐
7. Were all items received at a temperature of $>0^{\circ}\text{C}$ to 10.0°C *	Yes ☒	No ☐	NA ☐
8. Sample(s) in proper container(s)?	Yes ☒	No ☐	
9. Sufficient sample volume for indicated test(s)?	Yes ☒	No ☐	
10. Are samples properly preserved?	Yes ☒	No ☐	
11. Was preservative added to bottles?	Yes ☒	No ☐	NA ☐
12. Is there headspace in the VOA vials?	Yes ☐	No ☐	HNO3 NA ☒
13. Did all samples containers arrive in good condition(unbroken)?	Yes ☒	No ☐	
14. Does paperwork match bottle labels?	Yes ☒	No ☐	
15. Are matrices correctly identified on Chain of Custody?	Yes ☒	No ☐	
16. Is it clear what analyses were requested?	Yes ☒	No ☐	
17. Were all holding times able to be met?	Yes ☒	No ☐	

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: Date:
 By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
 Regarding:
 Client Instructions:

19. Additional remarks:

Item #	Temp °C
Cooler	5.6
Sample	1.8

Original



Fremont

Analytical

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record and Laboratory Services Agreement

Date: 3/4/2017

Laboratory Project No (Internal): 17030440

Page: 5 of 4

Client: Fulcrum Environmental Consulting

Address: 406 North Second Street

City, State, Zip: Yakima, WA, 98901

Telephone: 509.574.0839

Fax: 509.575.8453

Project Name: Kennewick SD Drinking Water - Edison Elementary

Project No: 162017.25

Location: Edison Elementary, Kennewick, WA

Report To (PM): Ryan Mathews

PM Email: rmathews@fulcrum.net, cc: aenbysk@fulcrum.net

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GYBTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)***	ED8 (8011)	Comments
1 EDE347-P-CF-05	3/4/2017	1030	DW														HNO3 pres.
2 EDE347-S-CF-05																	HNO3 pres.
3 EDE347-T-CF-05																	HNO3 pres.
4 EDE347-P-COF-06																	HNO3 pres.
5 EDE347-P-COF-08																	HNO3 pres.
6 EDE347-P-COF-10																	HNO3 pres.
7 EDE347-P-COF-12																	HNO3 pres.
8 EDE347-P-CF-13																	HNO3 pres.
9 EDE347-S-CF-13																	HNO3 pres.
10 EDE347-T-CF-13																	HNO3 pres.

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab (Samples will be held for 30 days unless otherwise noted. A fee may be assessed if samples are retained after 30 days)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished: 3/4/17 1300 Date/Time 3/4/17 Date/Time 0847

Relinquished: 3/4/17 1300 Date/Time 3/4/17 Date/Time 0847

Received: 3/4/17 Date/Time 0847

Received: 3/4/17 Date/Time 0847

Special Remarks: Please preserve all unprocessed samples

TAT → SameDay NextDay 2 Day 3 Day STD

Please coordinate with the lab in advance



Fremont
Analytical

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record and Laboratory Services Agreement

Date: 3/4/2017

Laboratory Project No (internal):

Page: 2 of 4

Client: Fulcrum Environmental Consulting

Project Name: Kennewick SD Drinking Water - Edison Elementary

Project No: 162017.25

Collected by: Amada Embryse

Address: 406 North Second Street

Location: Edison Elementary, Kennewick, WA

City, State, Zip: Yakima, WA, 98901

Report To (PM):

Ryan Matthews

Telephone: 509.574.0839

Fax: 509.575.8453

PM Email:

rmatthews@fulcrum.net

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCS (EPA 8260 / 624)	GV/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCD)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)**	ED8 (8011)	Comments
1 EDE3417-8-COF-14	3/4/2017	1030	DW														HN03 plus
2 EDE3417-8-COF-16																	
3 EDE3417-8-CF-17																	
4 EDE3417-8-COF-18																	
5 EDE3417-8-CF-19																	
6 EDE3417-8-CF-22																	
7 EDE3417-8-COF-24																	
8 EDE3417-5-COF-24																	
9 EDE3417-5-COF-24																	
10 EDE3417-8-CF-25																	

***Metals Analysis (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab (Samples will be held for 30 days unless otherwise noted. A fee may be assessed if samples are retained after 30 days.)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished 3/4/17, 1300 Date/Time Received 3/6/17 0847 Date/Time

Relinquished 3/4/17, 1300 Date/Time Received 3/6/17 0847 Date/Time

Special Remarks: See page 1

TAT → SameDay[^] NextDay[^] 2 Day 3 Day STD

*Please coordinate with the lab in advance



Fremont
Analytical

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Client: Fulcrum Environmental Consulting

Address: 406 North Second Street

City, State, Zip: Yakima, WA, 98901

Telephone: 509.574.0839

Fax: 509.575.8453

Project Name:

Kennewick SD Drinking Water - Edison Elementary

Project No:

162017.25

Location:

Edison Elementary, Kennewick, WA

Report To (PM):

Ryan Matthews

PM Email:

rmatthews@fulcrum.net, cc: aenbysk@fulcrum.net

Date: 3/4/2017

Laboratory Project No (Internal):

Page: 3 of 4

Chain of Custody Record and Laboratory Services Agreement

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCS (EPA 8260 / 624)	GV/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)**	EDB (8011)	Comments
1 EDE3417-R-COF-37	3/4/2017	1030	DW														HNO ₃ preserved
2 EDE3417-R-CF-38																	
3 EDE3417-R-COF-30																	
4 EDE3417-R-CF-31																	
5 EDE3417-R-COF-33																	
6 EDE3417-R-COF-35																	
7 EDE3417-R-CF-36																	
8 EDE3417-R-CF-37																	
9 EDE3417-R-CF-37																	
10 EDE3417-R-CF-37																	

***Metals Analysis (Circle): MRCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab (Samples will be held for 30 days unless otherwise noted. A fee may be assessed if samples are retained after 30 days.)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished 3/4/17 1300 Date/Time Received 3/6/17 0847 Date/Time

Reinquired 3/4/17 1300 Date/Time Received 3/6/17 0847 Date/Time

Special Remarks: see page 1

TAT → SameDay* NextDay* 2 Day 3 Day STD

*Please coordinate with the lab in advance



Fremont

Analytical

Chain of Custody Record and Laboratory Services Agreement

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 3/4/2017

Laboratory Project No (Internal):

Page: 4 of 4

Client: Fulcrum Environmental Consulting

Project Name: Kennewick SD Drinking Water - Edison Elementary

Address: 406 North Second Street

Project No: 162017.25

Collected by:

City, State, Zip: Yakima, WA, 98901

Location: Edison Elementary, Kennewick, WA

Telephone: 509.574.0839

Report To (PM): Ryan Mathews

Fax: 509.575.8453

PM Email:

rmathews@fulcrum.net

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624) GY/BTEX BTEX Gasoline Range Organics (GX) Hydrocarbon Identification (HClD) Diesel/Heavy Oil Range Organics (DX) SVOCs (EPA 8270 / 625) PAHs (EPA 8270 - SIM) PCBs (EPA 8082 / 608) Metals ** (EPA 6020 / 200.8) Total (T) / Dissolved (D) Anions (IC)*** EOB (8011)	Comments
1 EOE347-8-COF-38	3/4/2017	1030	DW	☒ VOCs ☒ GY/BTEX ☒ BTEX ☒ Gasoline Range Organics (GX) ☒ Hydrocarbon Identification (HClD) ☒ Diesel/Heavy Oil Range Organics (DX) ☒ SVOCs (EPA 8270 / 625) ☒ PAHs (EPA 8270 - SIM) ☒ PCBs (EPA 8082 / 608) ☒ Metals ** (EPA 6020 / 200.8) ☒ Total (T) / Dissolved (D) ☒ Anions (IC)*** ☒ EOB (8011)	HNO ₃ preserved
2 EOE347-8-CF-39					
3 EOE347-8-COF-43					
4 EOE347-8-KF-45					
5 EOE347-8-OF-46					
6 EOE347-8-CF-09					
7					
8					
9					
10					

**Metals Analysis (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite Turn-around times for samples received after 4:00pm will begin on the following business day.

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab (Samples will be held for 30 days unless otherwise noted. A fee may be assessed if samples are retained after 30 days.)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Refinishing Date/Time 3/14/2017 Received Date/Time 3/16/17

Relinquished Date/Time 3/14/2017 Received Date/Time 3/16/17

See page 1

TAT -> SameDay^ NextDay^ 2 Day 3 Day STD

^Please coordinate with the lab in advance