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Fulcrum Environmental

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

RE: Kennewick SD Drinking Water - Kennewick High School
Work Order Number: 1704106

April 10, 2017

Attention Ryan Mathews:

Fremont Analytical, Inc. received 5 sample(s) on 4/10/2017 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

DoD/ELAP Certification #L2371, ISO/IEC 17025:2005
ORELAP Certification: WA 100009-007 (NELAP Recognized)



Date: 04/10/2017

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Kennewick
Work Order: 1704106

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1704106-001	KHS4717-P-OF-50	04/07/2017 9:00 AM	04/10/2017 9:55 AM
1704106-002	KHS4717-S-OF-50	04/07/2017 9:00 AM	04/10/2017 9:55 AM
1704106-003	KHS4717-T-OF-50	04/07/2017 9:00 AM	04/10/2017 9:55 AM
1704106-004	KHS4717-P-DF-60	04/07/2017 9:00 AM	04/10/2017 9:55 AM
1704106-005	KHS4717-P-DF-61	04/07/2017 9:00 AM	04/10/2017 9:55 AM

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Kennewick High School

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:

1704106-001A 214895: Prep Comments for EPA200.8, Sample 1704106-001A: Turbidity: 0.01 NTU

1704106-004A 214896: Prep Comments for EPA200.8, Sample 1704106-004A: Turbidity: 0.01 NTU

1704106-005A 214897: Prep Comments for EPA200.8, Sample 1704106-005A: Turbidity: 0.04 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



CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Kennewick High School

Lab ID: 1704106-001 **Collection Date:** 4/7/2017 9:00:00 AM
Client Sample ID: KHS4717-P-OF-50 **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: 16741 Analyst: TN

Copper	670	0.500		µg/L	1	4/10/2017 2:09:51 PM
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Lab ID: 1704106-004 **Collection Date:** 4/7/2017 9:00:00 AM
Client Sample ID: KHS4717-P-DF-60 **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: 16741 Analyst: TN

Copper	ND	0.500		µg/L	1	4/10/2017 2:13:52 PM
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Lab ID: 1704106-005 **Collection Date:** 4/7/2017 9:00:00 AM
Client Sample ID: KHS4717-P-DF-61 **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: 16741 Analyst: TN

Copper	1,390	0.500		µg/L	1	4/10/2017 2:17:53 PM
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Work Order: 1704106
CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Kennewick

QC SUMMARY REPORT
Drinking Water Metals by EPA Method 200.8

Sample ID MB-16741	SampType: MBLK	Units: µg/L			Prep Date: 4/10/2017	RunNo: 35452					
Client ID: MBLKW	Batch ID: 16741				Analysis Date: 4/10/2017	SeqNo: 679043					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Copper ND 0.500

Sample ID LCS-16741	SampType: LCS	Units: µg/L			Prep Date: 4/10/2017	RunNo: 35452					
Client ID: LCSW	Batch ID: 16741				Analysis Date: 4/10/2017	SeqNo: 679046					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Copper 99.3 0.500 100.0 0 99.3 85 115

Sample ID 1704105-001ADUP	SampType: DUP	Units: µg/L			Prep Date: 4/10/2017	RunNo: 35452					
Client ID: BATCH	Batch ID: 16741				Analysis Date: 4/10/2017	SeqNo: 679048					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Copper 167 0.500 168.0 0.767 30

Sample ID 1704105-001AMS	SampType: MS	Units: µg/L			Prep Date: 4/10/2017	RunNo: 35452					
Client ID: BATCH	Batch ID: 16741				Analysis Date: 4/10/2017	SeqNo: 679049					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Copper 351 0.500 200.0 168.0 91.7 70 130

Sample ID 1704105-001AMSD	SampType: MSD	Units: µg/L			Prep Date: 4/10/2017	RunNo: 35452					
Client ID: BATCH	Batch ID: 16741				Analysis Date: 4/10/2017	SeqNo: 679050					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Copper 349 0.500 200.0 168.0 90.6 70 130 351.3 0.592 30

