

November 2, 2017

Kennewick School District No. 17 Attn: Keith Colee, Maintenance and Operations Manager 1000 West Fourth Avenue Kennewick, Washington, 99336

RE: Winter 2016 Drinking Water Sampling Results Eastgate Elementary School, 910 East 10th Avenue, Kennewick, Washington

Dear Keith:

On Wednesday, December 21, 2016, Fulcrum Environmental Consulting, Inc. (Fulcrum) collected 33 drinking water samples for lead and copper analysis from Eastgate Elementary School (School) located at 910 East 10th Avenue in Kennewick, Washington. Initial sampling identified nine fixture locations with copper concentrations above guidance levels. Fulcrum returned to the School on January 21, January 28, March 4, and March 18, 2017, to collect samples after remediation of the fixture and laboratory results found concentrations to be below guidance levels. Sampling was completed as part of a District-wide project and all analysis was completed by Washington State Department of Ecology (Ecology) accredited laboratories.

Summary

The purpose of initial sampling was to evaluate current drinking water quality conditions with respect to lead and copper as a result of the increased national and local interest related to lead in drinking water. The intent of sampling was to meet the requirements of the pending regulations set forth in Washington Administrative Code (WAC) 246-366A-130 and 246-366A-135¹. Consistent with the regulations, Fulcrum completed sampling at the rates of at least 50% of plumbing fixtures used regularly for drinking or cooking in elementary and preschools and at least 25% of drinking or cooking fixtures in middle schools, junior high schools, and high schools. In addition, Fulcrum sampled administrative facilities in the District at the same rate as elementary schools, of at least 50% of drinking and cooking fixtures.

Fulcrum completed initial sampling on December 21, 2016. Initial results identified nine samples with copper concentrations above the Environmental Protection Agency (EPA) action level of 1,300 μ g/L. Upon receipt of results, the District removed the identified fixtures from service pending remediation and further testing.

Copper is not a significant component in fixtures, but is the primary material in the plumbing system. To remediate elevated copper, the District aggressively flushed the fixtures with cold water to clear the plumbing of copper construction debris. Fulcrum returned on January 21st, January 28th, March 4th, and March 18th 2007 and collected a sample to evaluate the success of the remediation. The follow-up samples

¹ Washington State Department of Health, WAC 246-366A, *The Environmental Health and Safety Standards of Primary and Secondary Schools*, <u>http://apps.leg.wa.gov/WAC/default.aspx?cite=246-366A</u>, July 26, 2016



yielded results confirming the remediation was successful at reducing copper below the EPA action level. Following sampling and review of laboratory results, Fulcrum recommended, and the District elected, to return the identified fixtures to service.

As all samples now report concentrations below lead and copper action levels, at this time Fulcrum does not recommend any additional sampling. However, consistent with industry practice and the intent of WAC 246-366A, Fulcrum recommends that the District complete re-sampling of the building within the next five years (before December 2021). Additionally, if WAC 246-366A-130 is enacted, the regulations would require testing of all remaining fixtures within two years of the effective date (July 1, 2017). See Figure 1 in Attachment A for fixture locations and laboratory results. See Figure 1-A and 1-B in Attachment A for fixture locations and laboratory results.

Sampling Methodology

As a portion of this project, Fulcrum prepared a Sampling and Analysis Plan (SAP) intended to satisfy future initial sampling requirements under pending regulations.

For initial evaluation purposes, Fulcrum collected "first draw" samples. This "first draw" water volume consists of 250 milliliters (mL) and is intended to represent the water quality in the fixture, tubing connecting the fixture to the building piping, and potentially a portion of the building piping. If lead and copper are present, this first-draw sample typically contains the highest lead levels and indicates high copper from the associated building piping.

For most post-remediation evaluation sampling, Fulcrum collected three-part samples consisting of the first draw, "second draw", and "third draw" water volumes. Second and third draw samples are intended to represent the water quality of building piping and plumbing components behind the fixture and the water entering the building from the water main.

As a quality control measure, Fulcrum also included a laboratory blank of distilled water and a laboratory "spike" sample with known concentrations of lead and copper at the selected action levels for the project during all sampling events. Blank and spike sample results are included in the results tables for reference.

Blank and spike samples were used to evaluate laboratory performance. The reported lead and copper concentrations of quality assurance samples provided a metric to determine accuracy of the analyses. If the reported concentration of the spike sample differed from the action level, then the spike sample concentration was used as the action level.

Field evaluation of pH and temperature of drinking water was completed during the cold water flush and immediately following sample collection on select fixtures during the initial sampling event as a general evaluation of water quality.



Sampling Activities

Fulcrum's two-part sampling process consisted of an initial site visit the prior afternoon/evening to locate and flush each water sampling location (fixture). Sample collection occurred the following morning, after the fixture sat motionless for more than eight but no less than 18 hours, typically approximately 14 hours.

Initial Sampling

On the initial visit, Fulcrum flushed cold water through each fixture selected for sampling for approximately one minute. Following the flush, each fixture was covered and secured within a plastic bag. The plastic bags were marked with signage indicating testing was in progress and the fixture should not be used. Fulcrum returned to the school eight to 18 hours later to collect the samples. Each sample consisted of the first draw collected into 250-mL unpreserved polyethylene bottles and was immediately placed on ice in a chilled cooler.

Samples collected from the initial sampling event were delivered under chain-of-custody to RJ Lee Group's Columbia Basin Analytical Laboratory (Ecology Lab ID: C859-16) in Pasco, Washington for analysis.

Fixture Replacement and Flushing

Fixtures identified with elevated lead concentrations were replaced and preconditioned by running cold water continuously through the fixture for 24 hours, as outlined in WAC 246-366A-130. Following replacement and preconditioning, Fulcrum collected follow-up samples to confirm the success of fixture replacement.

Fixtures producing elevated copper concentrations were generally identified in newer District buildings and were not associated with specific fixture styles. The relationship between building construction age and fixture styles indicates elevated copper concentrations are principally associated with construction debris in the plumbing system.

All fixtures with elevated copper were flushed aggressively by running water through the fixture at high flow with the aerator removed for approximately 30 minutes to clear the plumbing of any debris potentially causing elevated copper concentrations. Following an aggressive flush, fixtures were resampled to evaluate the effectiveness at reducing copper concentrations. The District elected to install filters, install signage indicating the fixtures should be used only for handwashing, or permanently removed from service fixtures that did not respond to an aggressive flush. Filtered fixtures were resampled following filter installation to verify effectiveness of the filter.

Remedial Sampling

Remedial sampling typically consisted of first, second, and third draw samples from the fixture location and plumbing system in question. First draw samples were collected into 250 mL polyethylene bottles preserved with nitric acid. The second draw water volume consists of water collected into a 250 mL



unpreserved polyethylene container immediately following the first draw. No water was lost between collection of the first and second draw samples. The third draw water volume is a 1,000 mL sample collected into a one liter unpreserved polyethylene container after the fixture has been flushed for about three to five minutes.

Samples collected following remedial activities were shipped by common carrier under chain of custody to Fremont Analytical Laboratory (Ecology Lab ID: C910-16) in Seattle, Washington for analysis. Fremont was selected based on their availability to complete analysis on an expedited schedule.

Analytical Results

Samples from both initial and remedial sampling events were analyzed for lead and copper in drinking water by EPA Method 200.8.

Initial Sampling

Sample locations from the initial sampling event are presented in Figure 1-A and 1-B in Attachment A of this letter. A site-specific sampling and analysis plan (SSSAP) that provides a building specific summary of the location, number, and sampling frequency of water fixture locations is located in Attachment B. Initial analytical results are summarized in Table 1 located in Attachment C of this letter. Laboratory analytical results from the initial sampling event are located in Attachment D of this letter.

In addition, pH and temperature data from the initial sampling event is presented in Table 2 in Attachment C of this letter.

Remedial Sampling

Sample locations from the remedial sampling event are presented in Figure 1-A and 1-B in Attachment A of this letter. The remedial analytical results from this project are summarized in Table 3 located in Attachment C of this letter. Laboratory analytical results from the remedial sampling event are located in Attachment E of this letter.

Discussion

Initial Sampling

Analytical results identified nine samples, with a copper concentration above the EPA action level of 1,300 micrograms per liter (μ g/L). No samples were identified with lead concentrations above the EPA action level of 15 μ g/L.

Remedial Sampling

Immediately following receipt of initial sampling results, the District removed the identified fixtures from service pending remediation and further testing. To remediate elevated copper concentrations, the District



completed aggressive flushes of the fixtures. Fulcrum returned on mornings following the aggressive flush, January 21, January 28, March 4, and March 18, 2017, to collect follow-up samples.

Analytical results from remedial sampling indicated the aggressive flushes were successful at reducing copper concentrations below the action level for the fixtures in question.

Recommendations

No samples were found to contain lead concentrations above method reporting limits. Nine initial samples contained copper above the EPA action level of 1,300 μ g/L. The District completed aggressive flushes to reduce the copper concentration of the fixtures follow-up samples yielded results below the action level, confirming the remediation was successful. Following sampling and review of laboratory results, Fulcrum recommended, and the District elected, to return the fixtures to service.

As all samples now report concentrations below lead and copper action levels, Fulcrum does not recommend any additional sampling at this time. However, consistent with industry practice and the intent of WAC 246-366A, Fulcrum recommends that the District complete re-sampling of the building within the next five years (before December 2021). Additionally, if WAC 246-366A-130 is enacted, the regulations would require testing of all remaining fixtures within two years of the effective date (July 1, 2017).

If you have any questions, please feel free to contact me at (509) 574-0839.

Sincerely,

Cubyth

Amanda Enbysk, GIT Environmental Geologist

Ryan KMathers

Ryan K. Mathews, CIH, CHMM Principal



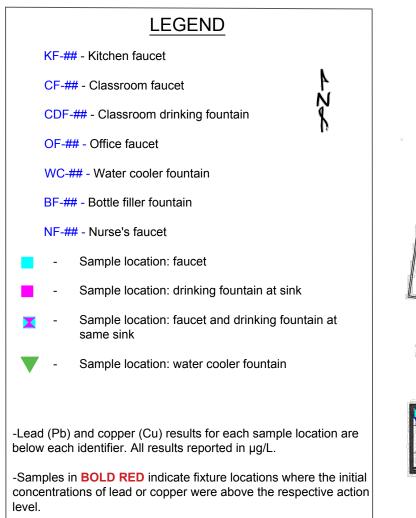


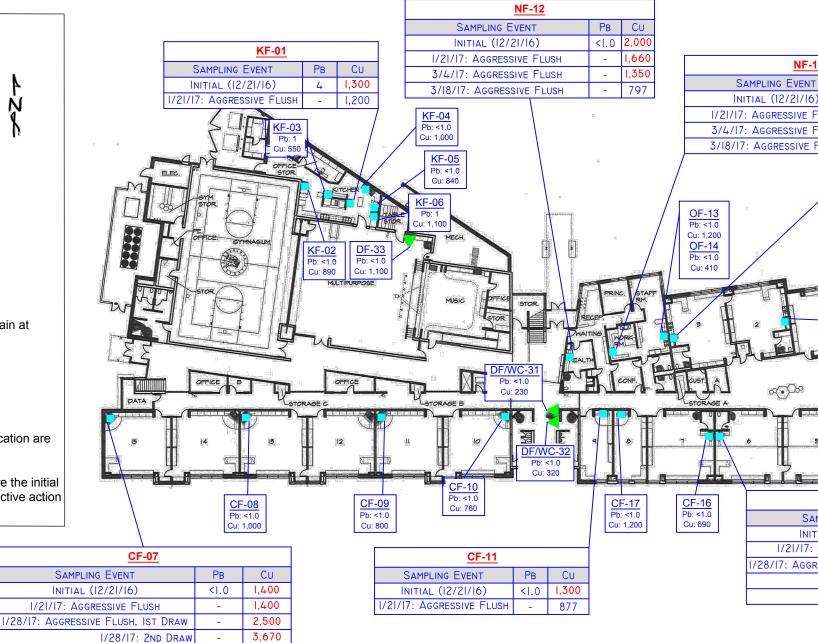


ATTACHMENT A

Figure 1-A: Sample Location Map – First Floor Figure 1-B: Sample Location Map – Second Floor







Fulcrum Environmental Consulting, Inc.Eastgate Elementary SchoolSamp406 North Second Street, Yakima, Washington 98901910 East 10th AvenueSampp: 509.574.0839 f: 509.575.8453 efulcrum.net910 East 10th AvenueSampKennewick SD Drinking Water Sampling. 162017.00. AME. 10232017Kennewick, WashingtonSamp

1,740

837

1/28/17: 3rd Draw

3/4/17: AGGRESSIVE FLUSH



| <u>-15</u> | | |
|------------|----|-------|
| IT | Рв | CU |
| 6) | 2 | 1,300 |
| FLUSH | - | 1,590 |
| FLUSH | - | 1,270 |
| Flush | - | 694 |

| | <u>CF-20</u> | | |
|----|-------------------------------------|------|-------|
| | SAMPLING EVENT | Рв | CU |
| | INITIAL (12/21/16) | <1.0 | 1,600 |
| | 1/21/17: Aggressive Flush | - | 1,730 |
| | 1/28/17: Aggressive Flush, 1st Draw | - | 1,770 |
| | 1/28/17: 2nd Draw | - | 2,250 |
| | 1/28/17: 3rd Draw | - | 767 |
| | 3/4/17: Aggressive Flush | - | 1,280 |
| C. | 3/18/17: Aggressive Flush | - | 674 |
| 3 | | | |

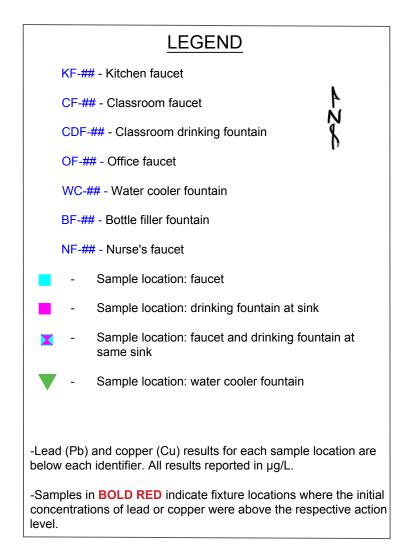
| | <u>CF-19</u> | | |
|----------|-------------------------------------|------|-------|
| CILLIE O | SAMPLING EVENT | Рв | Cu |
| 33 | INITIAL (12/21/16) | <1.0 | I,600 |
| | 1/21/17: AGGRESSIVE FLUSH | - | 1,480 |
| - | 1/28/17: Aggressive Flush, 1st Draw | - | 1,610 |
| | 1/28/17: 2nd Draw | - | 2,370 |
| | 1/28/17: 3rd Draw | - | 941 |
| 5 | 3/4/17: AGGRESSIVE FLUSH | - | 1,300 |
| G. | 3/18/17: Aggressive Flush | - | 578 |
| 8 2 3 | | | |

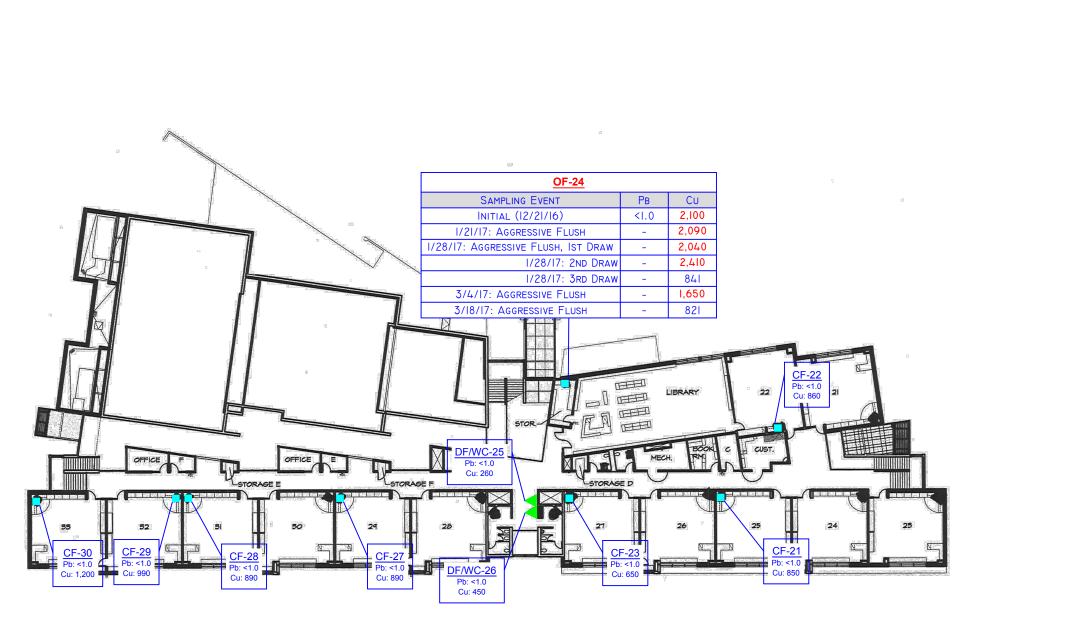
FIGURE

1-A

| <u>CF-18</u> | | |
|--------------------------|------|-------|
| SAMPLING EVENT | Рв | Cu |
| IITIAL (12/21/16) | <1.0 | 1,400 |
| 7: Aggressive Flush | - | 1,160 |
| gressive Flush, Ist Draw | | 1,320 |
| 1/28/17: 2nd Draw | | 1,900 |
| 1/28/17: 3rd Draw | | 657 |

Sample Location Map - First Floor





Eastgate Elementary School 910 East 10th Avenue Kennewick, Washington



Sample Location Map - Second Floor

FIGURE 1-B



ATTACHMENT B

Site-Specific Sampling and Analysis Plan





Site-Specific Sampling and Analysis Plan

Kennewick School District – Winter 2016 Drinking Water Sampling

Note: This SSSAP has been prepared as a supplement to the project SAP/QAPP and provide a building specific summary of the location, number, and sampling frequency of water fixture locations.

| Campus/Building: | Eastgate Elementary | Address: <u>910</u> | E 10 th Ave, Kennewick WA |
|-----------------------|---------------------|---------------------|--------------------------------------|
| Elementary | □ Middle School | □ High School | □ Administration |
| Date of Construction: | 2015 | Modernizatio | ns: <u>N/A</u> |

| Fixture Type | Locations | Fixture Styles ¹ | Samples | Ratio |
|--|-----------|-----------------------------|---------|-------|
| Drinking fountain/water cooler (DF/WC) | 8 | 3 | 5 | 63% |
| Kitchen Fixture (KF) | 6 | 4 | 6 | 100% |
| Classroom faucet, including faucets in Food Labs and Life Sciences Classrooms (CF) | 29 | 2 | 17 | 60% |
| Classroom drinking fountain at sink (CDF) | N/A | N/A | - | - |
| Nurse's Office/Health Room (NF) | 1 | 1 | 1 | 100% |
| Teacher's Lounges/Work Rooms (OF) | 4 | 2 | 4 | 100% |
| TOTALS | 48 | | 33 | 69% |

1

Fixture styles are approximate based on sampler's observations

| Lead Sampler: | Nathan | Bostrom | | | Date: | 12/21/2016 | |
|----------------|--------------------|------------|--|--------------|----------------|--------------|------|
| Sample Prefix: | EGE School Code | | – <u>P (first-draw)</u> Sample Type | | | | - |
| Laboratory: | R. J. Lee Group. | , Columbia | Basin Analytica | <u>ıl</u> De | livery Date: _ | December 21, | 2016 |
| Comments: | | | | | | | A |



ATTACHMENT C

Table 1: Initial Sampling Analytical Results Summary TableTable 2: pH and Temperature Data Summary TableTable 3: Remedial Sampling Analytical Results Summary Table





Table 1: Initial Sampling Analytical Results

| Table 1: Initial Sampling Analytical Results | | Lead | Copper |
|--|--------------------------------|---------|---------|
| Sample Identification and Location | Fixture Type | Results | Results |
| | | (µg/L) | (µg/L) |
| EGE122116-P-KF-01: Kitchen, Middle island, E. end | Kitchen Faucet | 4 | 1,300 |
| EGE122116-P-KF-02: Kitchen, W. wall | Kitchen Faucet | <1.0 | 890 |
| EGE122116-P-KF-03: Kitchen, Middle island, W. end | Kitchen Faucet | 1 | 550 |
| EGE122116-P-KF-04: Kitchen, N. wall | Kitchen Faucet | <1.0 | 1,000 |
| EGE122116-P-KF-05: Kitchen, E. wall, faucet | Kitchen Faucet | <1.0 | 840 |
| EGE122116-P-KF-06: Kitchen, E. wall, sprayer | Kitchen Faucet | 1 | 1,100 |
| EGE122116-P-CF-07: Room 15 | Classroom Faucet | <1.0 | 1,400 |
| EGE122116-P-CF-08: Room 13 | Classroom Faucet | <1.0 | 1,000 |
| EGE122116-P-CF-09: Room 11 | Classroom Faucet | <1.0 | 800 |
| EGE122116-P-CF-10: Room 10 | Classroom Faucet | <1.0 | 760 |
| EGE122116-P-CF-11: Room 09 | Classroom Faucet | <1.0 | 1,300 |
| EGE122116-P-NF-12: Health Room | Nurse's Faucet | <1.0 | 2,000 |
| EGE122116-P-OF-13: Staff Lounge | Office Faucet | <1.0 | 1,200 |
| EGE122116-P-OF-14: Staff Lounge, instant hot | Office Faucet | <1.0 | 410 |
| EGE122116-P-NF-15: Work Room | Office Faucet | 2 | 1,300 |
| EGE122116-P-CF-16: Room 07 | Classroom Faucet | <1.0 | 690 |
| EGE122116-P-CF-17: Room 08 | Classroom Faucet | <1.0 | 1,200 |
| EGE122116-P-CF-18: Room 06 | Classroom Faucet | <1.0 | 1,400 |
| EGE122116-P-CF-19: Room 02 | Classroom Faucet | <1.0 | 1,600 |
| EGE122116-P-CF-20: Room 03 | Classroom Faucet | <1.0 | 1,600 |
| EGE122116-P-CF-21: Room 25 | Classroom Faucet | <1.0 | 850 |
| EGE122116-P-CF-22: Room 22 | Classroom Faucet | <1.0 | 860 |
| EGE122116-P-CF-23: Room 27 | Classroom Faucet | <1.0 | 650 |
| EGE122116-P-OF-24: Library Work Room | Office Faucet | <1.0 | 2,100 |
| EGE122116-P-DW/WC-25: 2nd floor, left fixture | Drinking Fountain/Water Cooler | <1.0 | 260 |
| EGE122116-P-DW/WC-26: 2nd floor, right fixture | Drinking Fountain/Water Cooler | <1.0 | 450 |
| EGE122116-P-CF-27: Room 29 | Classroom Faucet | <1.0 | 890 |
| EGE122116-P-CF-28: Room 31 | Classroom Faucet | <1.0 | 890 |
| EGE122116-P-CF-29: Room 32 | Classroom Faucet | <1.0 | 990 |
| EGE122116-P-CF-30: Room 33 | Classroom Faucet | <1.0 | 1,200 |
| EGE122116-P-DF/WC-31: First floor, left fixture | Drinking Fountain/Water Cooler | <1.0 | 230 |
| EGE122116-P-DF/WC-32: First floor, right fixture | Drinking Fountain/Water Cooler | <1.0 | 320 |
| EGE122116-P-DF-33: Multipurpose/Cafeteria, right fixture | Drinking Fountain | <1.0 | 1,100 |
| EGE122116-P-CF-34: Laboratory Blank | Distilled Water Blank | <1.0 | <10 |
| EGE122116-P-CF-35: Laboratory Spike | Lead and Copper Spike | 14 | 1,300 |
| EPA Action Level | | 15 | 1,300 |

1 μ g/L means microgram per liter or parts per billion (ppb).

2 Action levels based on the U.S. EPA's Lead and Copper Rule.

Results indicated in **bold** indicate concentrations above the action levels of 15 μ g/L for lead and 1,300 μ g/L for copper Results indicated in *italics* are quality assurance spike and blank samples



| Sample Number | Eisture Type | pН | pН | Temp (°C) | Temp (°C) |
|---------------------------------------|-----------------------|-------|--------|-----------|-----------|
| Sample Number | Fixture Type | Flush | Sample | Flush | Sample |
| EGE122116-P-KF-05: Kitchen, E. wall | Kitchen Faucet | 6.94 | 7.92 | 13.9 | 17.3 |
| EGE122116-P-CF-09: Classroom 11 | Classroom Faucet | 7.91 | 7.80 | 16.5 | 18.7 |
| EGE122116-P-NF-12: Health Room | Nurse's Faucet | 7.87 | 7.82 | 15.9 | 20.0 |
| EGE122116-P-CF-16: Classroom 07 | Classroom Faucet | 7.63 | 7.88 | 20.3 | 20.1 |
| EGE122116-P-CF-20: Classroom 03 | Classroom Faucet | 7.87 | 7.83 | 16.7 | 20.1 |
| EGE122116-P-OF-24: Storage room, rear | Office Faucet | 7.85 | 7.95 | 20.6 | 18.6 |
| of library | Office Faucei | 7.65 | 1.95 | 20.0 | 18.0 |
| EGE122116-P-CF-28: Classroom 31 | Classroom Faucet | 7.31 | 7.88 | 21.1 | 20.8 |
| EGE122116-P-DF/WC-32: First floor | Water Cooler Fountain | 7.61 | 7.96 | 15.7 | 15.5 |
| drinking fountain, right fixture | | 7.01 | 7.90 | 13.7 | 15.5 |

Table 2: pH and Temperature Data Summary

Table 3: Remedial Sampling Analytical Results

| | | | | | Sample | Identifi | cation | | | | |
|---|-------|-------|-------|-------|--------|----------|--------|-------|-------|------------------------|-----------------------|
| Sampling Event | KF-01 | CF-07 | CF-11 | NF-12 | NF-15 | CF-18 | CF-19 | CF-20 | OF-24 | Laboratory Blank (-34) | Laboratory Spike(-35) |
| Initial (12/21/2016) | 1,300 | 1,400 | 1,300 | 2,000 | 1,300 | 1,400 | 1,600 | 1,600 | 2,100 | <10 | 1,300 |
| Aggressive Flush (1/21/2017) | 1,200 | 1,400 | 877 | 1,660 | 1,590 | 1,160 | 1,480 | 1,730 | 2,090 | 0.60 | - |
| 3-Part Evaluation; First Draw (1/28/2017) | - | 2,500 | - | - | - | 1,320 | 1,610 | 1,770 | 2,040 | <10 | 1,290 |
| Second Draw (1/28/2017) | - | 3,670 | - | - | - | 1,900 | 2,370 | 2,250 | 2,410 | - | - |
| Third Draw (1/28/2017) | - | 1,740 | - | - | - | 657 | 941 | 767 | 841 | - | - |
| Aggressive Flush (3/4/2017) | - | 837 | - | 1,350 | 1,270 | - | 1,300 | 1,280 | 1,650 | <0.5 | 1,220 |
| Aggressive Flush (3/18/2017) | - | - | - | 797 | 694 | - | 578 | 674 | 821 | 0.760 | 1,310 |
| EPA Action Level | 1,300 | 1,300 | 1,300 | 1,300 | 1,300 | 1,300 | 1,300 | 1,300 | 1,300 | 1,300 | 1,300 |

1 μ g/L means microgram per liter or parts per billion (ppb).

2 Action levels based on the U.S. EPA's Lead and Copper Rule. Results indicated in **bold** indicate concentrations above the action levels of 15 μg/L for lead and 1,300 μg/L for copper Results indicated in *italics* are quality assurance spike and blank samples



ATTACHMENT D

Initial Analytical Results



Winter 2016 – Drinking Water Sampling Results Eastgate Elementary School, Kennewick, Washington



Fulcrum Environmental 406 N. 2nd St. Yakima, WA 98901

Subject: Chemical Analysis Report

Columbia Basin Analytical Laboratories received 35 sample(s) on 12/21/16 for analysis. These sample(s) have been assigned a login order number of W612100. Enclosed is the final report that consists of a summary report of the sample(s), and a copy of the chain of custody.

General Lab Comments

The results provided in this report relate only to the items tested. Sample(s) were received in acceptable conditions unless otherwise noted in the comments above. Sample(s) have not been field blank corrected unless otherwise noted in the general set comments above. The sample(s) were prepared in accordance with EPA 200.8 and analyzed in compliance with EPA 200.8. This test report shall not be reproduced, except in full, without written approval of Columbia Basin Analytical Laboratories. Any questions, please contact our office.

All samples were diluted 1:10.

X-Samples that exceeded the instrument calibration range were rerun at a 1:100 dilution, necessitating a 10-fold increase in the PQL.

Release of the data contained in the hard copy report has been authorized by the Laboratory Director or a designee as verified by the following signature. This report has been administratively reviewed by the following individual:



Project Coordinator II, M. Fernanda Pincheira

01/10/17

Date

If you have any questions please feel free to contact Fernanda Pincheira at MPincheira@rjleegroup.com.

Columbia Basin Analytical Laboratories | 2710 North 20th Avenue, Pasco WA 93301 | 509.545.4989

RJ Lee Group No.:W612100

Report Date: 01/10/17

Samples Received: 12/21/16

Analysis/Prep Date: 01/07/17

COC No.: Kennewick



Laboratory Report

| Amanda Enbysk | |
|-----------------------|--|
| Fulcrum Environmental | |

406 N. 2nd St. Yakima, WA 98901

Client Project:

Fulcrum Kennewick

| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100- | | Matrix: | Potable Water | | Date Received Date Analyzed | |
|---------------------------------|----------------------|-----------------|---------------|-------------------|---------------------|--------------------------------|------------|
| Analyt | e | | Method | | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | | EPA 200.8 | | 1.3 | 0.1 | Х |
| Lead | | | EPA 200.8 | | 0.004 | 0.001 | |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100- | | Matrix: | Potable Water | | Date Received Date Analyzed | |
| Analyt | æ | | Method | | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | | EPA 200.8 | | 0.89 | 0.01 | |
| Lead | | | EPA 200.8 | | < 0.001 | 0.001 | |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100- | | Matrix: | Potable Water | | Date Received Date Analyzed | |
| Analyt | æ | | Method | | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | | EPA 200.8 | | 0.55 | 0.01 | |
| Lead | | | EPA 200.8 | | 0.001 | 0.001 | |
| ample Name: RJ Lee Grp. ID: | EGE12211 W612100- | | Matrix: | Potable Water | | Date Received Date Analyzed | |
| Analyt | æ | | Method | | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | | EPA 200.8 | | 1.00 | 0.01 | |
| Lead | | | EPA 200.8 | | < 0.001 | 0.001 | |
| ample Name: RJ Lee Grp. ID: | EGE12211 W612100- | | Matrix: | Potable Water | | Date Received Date Analyzed | |
| Analyt | e | | Method | | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | | EPA 200.8 | | 0.84 | 0.01 | |
| Lead | | | EPA 200.8 | | < 0.001 | 0.001 | |
| (| Columbia Basir | n Analytical La | boratories 2 | 2710 North 20th A | venue, Pasco WA 933 | 01 509.545.4989 | |

| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100-0 | Wallix. Folable wal | er | Date Received Date Analyzed | |
|---------------------------------|-----------------------|----------------------------|------------------|--------------------------------|------------|
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 1.1 | 0.1 | Х |
| Lead | | EPA 200.8 | 0.001 | 0.001 | |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100-0 | | er | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper Lead | | EPA 200.8 EPA 200.8 | 1.4 < 0.001 | 0.1 0.001 | Х |
| ample Name: RJ Lee Grp. ID: | EGE12211 W612100-0 | | er | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 1.00 | 0.01 | |
| Lead | | EPA 200.8 | < 0.001 | 0.001 | |
| ample Name: RJ Lee Grp. ID: | EGE12211 W612100-0 | Walrix: Folable Wal | er | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 0.80 | 0.01 | |
| Lead | | EPA 200.8 | < 0.001 | 0.001 | |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100-1 | | er | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 0.76 | 0.01 | |
| Lead | | EPA 200.8 | < 0.001 | 0.001 | |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100-1 | | er | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 1.3 | 0.1 | Х |
| | | EPA 200.8 | < 0.001 | 0.001 | |

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| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100- | | er | Date Received Date Analyzed | |
|---------------------------------|----------------------|-----------------------------|------------------|---|------------|
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper Lead | | EPA 200.8 | 2.0 | 0.1 | Х |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100- | Walrix: Folable wale | < 0.001 | 0.001 Date Received Date Analyzed | |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper Lead | | EPA 200.8 EPA 200.8 | 1.2 < 0.001 | 0.1 0.001 | Х |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100- | | er | Date Received Date Analyzed | |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper Lead | | EPA 200.8 EPA 200.8 | 0.41 < 0.001 | 0.01 | |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100- | VIALEX: FULADIC WALK | er | Date Received Date Analyzed | |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper Lead | | EPA 200.8 EPA 200.8 | 1.3 0.002 | 0.1 | Х |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100- | | er | Date Received Date Analyzed | |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper Lead | | EPA 200.8 EPA 200.8 | 0.69 < 0.001 | 0.01 | |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100- | | er | Date Received Date Analyzed | |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper Lead | | EPA 200.8 EPA 200.8 | 1.2 < 0.001 | 0.1 | Х |

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| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100- | | er | Date Received Date Analyzed | |
|---------------------------------|-----------------------|------------------------|------------------|---|------------|
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper Lead | | EPA 200.8 | 1.4 | 0.1 | Х |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100- | | < 0.001 | 0.001 Date Received Date Analyzed | |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper Lead | | EPA 200.8 EPA 200.8 | 1.6 < 0.001 | 0.1 0.001 | Х |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100-2 | | er | Date Received Date Analyzed | |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper Lead | | EPA 200.8 EPA 200.8 | 1.6 < 0.001 | 0.1 0.001 | Х |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100-2 | | er | Date Received Date Analyzed | |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper Lead | | EPA 200.8 EPA 200.8 | 0.85 < 0.001 | 0.01 | |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100-2 | | er | Date Received Date Analyzed | |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 0.86 | 0.01 | |
| Lead | | EPA 200.8 | < 0.001 | 0.001 | |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100-2 | | er | Date Received Date Analyzed | |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper Lead | | EPA 200.8 EPA 200.8 | 0.65 < 0.001 | 0.01 0.001 | |

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| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100-2 | | ter | Date Received Date Analyzed | |
|---------------------------------|-----------------------|--|------------------|--------------------------------|------------|
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 2.1 | 0.1 | Х |
| Lead | | EPA 200.8 | < 0.001 | 0.001 | |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100-2 | 6-P-DF/WC- 25 25 | ter | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper Lead | | EPA 200.8 EPA 200.8 | 0.26 < 0.001 | 0.01 0.001 | |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100-2 | 6-P-NF/WC- 20 atrix: Potable Wa 26 | ter | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 0.45 | 0.01 | |
| Lead | | EPA 200.8 | < 0.001 | 0.001 | |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100-2 | | ter | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 0.89 | 0.01 | |
| Lead | | EPA 200.8 | < 0.001 | 0.001 | |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100-2 | | ter | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 0.89 | 0.01 | |
| Lead | | EPA 200.8 | < 0.001 | 0.001 | |
| Sample Name: RJ Lee Grp. ID: | EGE12211 W612100-2 | | ter | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| | | | | | |
| Copper | | EPA 200.8 | 0.99 | 0.01 | |

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| Sample Name: RJ Lee Grp. ID: | EGE122110 W612100-3 | Walrix: Polable wa | ater | Date Received Date Analyzed | |
|---|------------------------|---|------------------|---|------------|
| Analyt | e | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 1.2 | 0.1 | Х |
| Lead Sample Name: RJ Lee Grp. ID: | EGE122110 W612100-3 | EPA 200.8 5-P-DF/WC- Matrix: Potable Wa | < 0.001 | 0.001 Date Received Date Analyzed | |
| Analyt | e | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper Lead | | EPA 200.8 EPA 200.8 | 0.23 < 0.001 | 0.01 0.001 | |
| Sample Name: RJ Lee Grp. ID: | EGE122110 W612100-3 | 5-P-DF/WC- Matrix: Potable Wa | ater | Date Received Date Analyzed | |
| Analyt | e | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper Lead | | EPA 200.8 EPA 200.8 | 0.32 < 0.001 | 0.01 | |
| Sample Name: RJ Lee Grp. ID: | EGE122110 W612100-3 | | ater | Date Received Date Analyzed | |
| Analyt | e | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper Lead | | EPA 200.8 EPA 200.8 | 1.1 < 0.001 | 0.1 0.001 | Х |
| Sample Name: RJ Lee Grp. ID: | EGE122110 W612100-3 | | ater | Date Received Date Analyzed | |
| Analyt | e | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | < 0.010 | 0.01 | |
| Lead Sample Name: RJ Lee Grp. ID: | EGE122110 W612100-3 | | < 0.001 | 0.001 Date Received Date Analyzed | |
| Analyt | e | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 1.3 | 0.1 | Х |

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Report Qualifiers:

- A = Target Analyte media breakthrough suspect, see analytical report
- D = Analyte analyzed in a dilution
- $E = Report \ concentration \ was \ above \ the \ instrument \ calibration \ range$
- J = Analyte detected below quantitation limits, concentration is estimated
- P = Library spectrum match, rsd >90% w RT match
- $Q = Result \ out \ of \ method \ specific \ acceptance \ QC \ criteria$
- S = Spike Recovery outside accepted recovery limits
- Z = Not ELAP accredited analyte
- ND = Not Detected



- $B = Analyte \ detected \ in \ the \ associated \ blank$
- d = Data that exceeds the RSD criteria set by the SOP
- H = Holding times for preparation or analysis exceeded
- $L = Sample \ condition \ at \ receipt \ out \ of \ compliance \ with \ method \ defined \ conditions$
- R = RPD (relative percent difference) outside accepted recovery limits
- $U = Analyte \ analyzed \ for \ but \ not \ detected$
- N/A = Not Applicable

Scientist III J Grissmerson

These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, RJ Lee Group will store the samples for a period of ninety (90) days before discarding. A shipping and handling fee will be assessed for the return of any samples. Unless otherwise noted, samples were received in an acceptable condition. This laboratory operates in accordance with ISO 17025 guidelines, and holds limited scopes of accreditation under ORELAP Lab Code 4061 AIHA-LAP, LLC Lab ID 178656 EPA ID WA01195 and WA DOE Lab ID C859. This report may not be used to claim product endorsement by any laboratory accrediting agency. The results contained in this report relate only to the items tested or to the sample(s) as received by the laboratory. Any reproduction of this document must be in full for the report to be valid. Quality control data is available upon request.

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DELIVERING SCIENTIFIC RESOLUTION **RJ LEE GROUP**

509.544.6010 Fax 509.545.4989 Phone

724.733.1799 Fax 724.325.1776 Phone

Pasco, WA 99301

Washington Columbia Basin Analytical Laboratories 2710 North 20th Avenue

Pennsylvania - HQ 350 Hochberg Road Monroeville, PA 15146

| | Custody | Chain of | | Chain of Custody | | SCEIDSIL | & guerians | 12612/221 | FREIZUIL | 6-911C-1371 | EGE 12211 | うしたりついし | ווכנושטט | ECEIDA | ה- זותרו זיושכן | ECEIDANG -P | Clie | | Special Instructions | | ā | | Cond Invoice | | | | | Ъ | Results | Report | | | Only | Lab Use | ATTENTION TO: |
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| Company Name: | Relinquished By (Print Name): | Relinquished By (Signature): | Company Name: ALCON | Relinquished By (Print Name): A) achao | Polinquiched By (Cianat | ~ (-CP-22 | 6-2-01-21 | ac-20- | 1-2-(F-19 | 81-20- | -CF-17 | | ELEI22116 - Y-NF-15 | | - | 416-P-NF-12 | Client Sample ID | | | Phone: (509) 574-0839 | City, State, Zip: Y | Address: 406 North | Company: Fulcrum E | Name: Lorrie Boutillier | Fax Results To: | Email Results To: | Call with Verbal Results: | Phone: (509) 574-0839 | City, State, Zip: | Address: 406 North | Company: Fulcrum E | Name: Amanda Enbysk, Ryan Mathews | Date Logged In: | Project No.: | |
| | Name): | ture): | | | in the R | RM-22 | RM -25 | RM -3 | P.M - 2 | RV- MA UN | RM-8 | AM-7 | Nurse's office | Office Hot faure 1 | office | Nurses Office | Sample Description | | | -0839 Fax: | Yakima, WA, 98901 | 406 North 2nd Street | Fulcrum Environmental Err | | | aenbysk@efulcrum.net, CC: rmathews@efulcrum.net | | -0839 Fax: | Yakima, WA, 98901 | 406 North 2nd Street | Fulcrum Environmental Consulting | , Ryan Mathews | Log | Qi | RYAN MATHEWS |
| Method of Shipment: | Relinquished To: | Date: | 11 | Bostroim Relinquished To: | | 4 | | | | 5 | | | | ke 1 | | 91-1-L 3 | 1 Sample Date | | | (: (509) 575-8453 | | | Email: lboutillier@efulcrum.net | | | rmathews@efulcrum | | c (509) 575-8453 | | | | | Logged In By: | Client No: | |
| Shipment: | ed To: | | Shipment: | ¢ | | | | | | | | | | | | | Start | Sample Time | | 8453 | | | rum.net | | | i.net | | 8453 | | | | | | | |
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| | | | | C | 1 | | | | | | | | | | | | Wipe Area / Air Volume | | | | | | | | | | | | | | | | | | |
| | Custody | Chain of | | Custody | | 2 | 1 | | | | | | | | - | K | | Pb, Cu | EPA 200.8: | | | | | | Analysis Key | Chemistry | | | Sample Only | Water | Drinking | | Request | Turnaround | Purchase Order No.: |
| Company Name: | Received By (Print Name): | Received By (Signature): | Company Name | Received By (Print Name): | Barried Branch | ~ () | | | | | | | | | | | | | | | | Analysis Requested | | Other Na-SO, | | res | a | Sample Purpose: A | Multiple Sources #s: | DOH Source #: | System ID #: | Sample Purpose: Info | | Standard: Vac | r No.: |
| | Name): | ture): | Jue | Name: OPC1 | a.d. | | | | | | | | | | | | | | | | | quested | | E=Extract | S=Soil/Sludge | WW=Wastewater | Matrix: | B 🗆 Other 🗅 | | | | Sample Purpose: Information X Regulatory | | | |
| Metho | Reling | Date: | Metho | Relinqu | DEC.3 | | | | | | | | | | | | Pres. I | Upc | on Rec | eip | t (Y, | /N) | - | X=Other | 0=0il | SW=Surface Water | | | | | | Accreditation (please list below): | | If 'No ' No of Business Dave | Client Job No.: |
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| nent: | | Time: | nent: | | | ۵ | 6 | | | | | | | | - | p | с | | ainer | | e | | | A=Air (filte | W=Wipe | P=Plastic | Container: | | | | | flow): | | | 162017 |
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Request for Environmental and IH Laboratory Analytical Services

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DELIVERING SCIENTIFIC RESOLUTION **RJ LEE GROUP**

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509.544.6010 Fax 509.545.4989 Phone

724.325.1776 Phone 724.733.1799 Fax

Pasco, WA 99301

Columbia Basin Analytical Laboratories 2710 North 20th Avenue Washington

Pennsylvania - HQ 350 Hochberg Road Monroeville, PA 15146

| | | | | | | | | | | The APPENDANCE | | | | |
|-------------------------|---------------------------------------|---|---------------------|---------------------|---------|-----------------|-----------------|---------------------------|--------------------------|------------------------------------|---------------------|------------|------------------------|-------|
| Lab Use | Project No.: | Client No: | | | | | Turnaround | Standard: Yes | No If 'No,' N | If 'No,' No. of Business Days: | ays: | | | |
| | Name: Amanda Enbysk, Ryan Mathews | | | | | | | Sample Purpose: Info | Information X Regulatory | Accreditation (please list below): | olease list | below}: | | |
| | Company: Fulcrum E | Fulcrum Environmental Consulting | | | | | Drinking | | | | | | | |
| 00001 | | 406 North 2nd Street | | | | | Water | DOH Source #: | | | | | | |
| Results | City, State, Zip: | Yakima, WA, 98901 | | | | | Sample Only | Multiple Sources #s: | | | | | | |
| То | Phone: (509) 574-0839 | -0839 Fax: | (509) 575-8453 | 8453 | | | | Sample Purpose: A D | B 🗆 Other 🗆 | | | | | |
| ĉ | h Vert | | | | | | | Preservation: | Matrix: | | | Container: | ner: | |
| | Email Results To: | aenbysk@efulcrum.net, CC: rmathews@efulcrum.net | @efulcrum | .net | | | Phone lakes | res | WW=Wastewater | SW=Surface Water | ater | P=Plastic | tic | |
| | Fax Results To: | | | | | | Analysis Kay | | GW=Groudwater | DW=Drinking Water | vater | W=Wipe | Se Se | |
| | Name: Lorrie Boutillier | | | | | | | Other Na-SO. | E=Extract | X=Other | | A=Air (| A=Air (filter or tube) | ube) |
| Carl Invite | Company: | Fulcrum Environmental Email: lboutillier@efulcrum.net | llier@efulc | um.net | | | | | | | | | | |
| | Address: | 406 North 2nd Street | | | | | | Analysis Requested | quested | /N) | | | | |
| ā | City, State, Zip: | Yakima, WA, 98901 | | | | | | | | ot (Y | n | ne | μc | ers |
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| Special Instructions | | | | | | | EPA 200.8: | | | on Re | eserva | Matri | pH | Conta |
| Clie | Client Sample ID | Sample Description | Sample | Sample Time | lime | Wipe Area / Air | Г и , си | | | es. Up | Pr | Cor | | No |
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| Chain of | Relinquished By (Signature): Nothan | - | Date: 12 | -16 | Time: 0 | :25 | Chain of | Received BASigdature) | tyre); | DEE(| DEC 2 1 2016 Time: | 016 Tim | ne: | SC |
| Custody | Relinquished By (Print Name): Northon | Name): Nathon Bostain | Relinquished To: | 2 | | | Custody | Received By (Print Name) | Kambro Kez | Reling | Relinquished To: | | | |
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No. Containers

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W612100, Page 11 of 12

ATTENTION TO:

RYAN MATHEWS

Request for Environmental and IH Laboratory Analytical Services

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Purchase Order No.:

Client Job No.:

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| Pennsylvania - HQ 350 Hochberg Road Monroeville, PA 15146 | | Custody | Chain of | | Custody | Chain of | | | | | | | | | | | 1 333 | -62 is | Clie | Special Instructions | | То | Send Invoice | | | | i | To | Results | Renort | | | Lab Use Only | ATTENTION TO: | |
| HQ Road A 15146 | Company Name: | Relinquished By (Print Name): | Relinquished By (Sig | Company Name: | Relinquished By (Prin | Relinquished By (Signature): | | ~ | | | | | | / | / | 1 | 122116-12-01- | 122116 -Cf | Client Sample ID | | Phone: (509) 5 | Address: 406 NO | 1.0 | 등 | Fax Results To: | Email Results To: | Call with Verbal Results: | Phone: (509) 5 | City, State, Zip: | | Company: Fulcrum | Name: Amanda Enbysk, Ryan Mathews | Project No.: Date Logged In: | | |
| Washington Columbia Basin Analytical Laboratories 2710 North 20th Avenue | | nt Name): | nature): | Fulem | | nature): Whithink | | | | | | | | | | | 35 .SM | if-34 RM 2 | Sample Description | | (509) 574-0839 | 4Ub North 2nd Street | Fulcrum Environmental | er | | aenbysk@efulcrum.net, CC: rmathews@efulcrum.net | lts: | (509) 574-0839 | Yakima, WA, 98901 | 406 North 2nd Street | Fulcrum Environmental Consulting | ysk, Ryan Mathews | | RYAN MATHEWS | |
| cal Laboratories Je | Me | Rel | Date: | 1 1 | Bastrom Rel | KS Dat | 9 | | | | | | | | | 1 | | 203 23 | | | Fax: (50 | | Email: Iboutillier@efulcrum.net | | | iet, CC: rmathews@e | | Fax: (50 | | | lting | topped in cy. | Client No: | | |
| | Method of Shipment: | Relinquished To: | te: | Method of Shipment: | Relinquished To: | Date: 12-21- | ſ | / | | | | | | / | / | | ¢ | 1-1-6 | Sample Date St | | (509) 575-8453 | | @efulcrum.n | | | fulcrum.net | | (509) 575-8453 | | | | | | | |
| | nent: | | Time: | nent: | | · 1C Time: | | | | | | 4 | | | | | | | Start S | | | | et | | | | | | | | | | | | V |
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| | | Custody | Chain of | | Custody | Chain of | E | | | | | | - | | _ | | | × | | EPA 200.8: Pb, Cu | | | | mildiyələ key | Chemistry Analysis Kay | | | | Sample Only | Water | Drinking | | Turnaround | Purchase Order No.: | |
| | Company Name: | Received By (Print Name): | Received By (Signature): | Company Name: | Received By (Print) | Received by Senfliges: | 2 | > | 1 | | | | | | | | | | | | | Analysis Requested | | Other Na ₂ SO ₄ | 4 C | Unpres H ₂ SO ₄ | Preservation: | Sample Purpose: A | Multiple Sources #s: | DOH Source #: | System ID #: | Sample Purpose: Inform | Standard: Yes | r No.: | |
| R | | lame): | ure): | Jules | lames Per, | Ged: | | | | | | | | | | | | | | | | Inested | | E=Extract | GW=Groudwater S=Soil/Sludge | WW=Wastewater | Matrix: | B 🗅 Other 🗆 | | | | Information X Regulatory | No If 'No,' | | |
| RJ LEE GROUP | Method | Relinqui | Date: | Method | Relinguished To: | DDEC 2 | | | | | | | | | | | | | Pres. U | pon Re | ceipt | (Y/N | 1) | X=Other | DW=Drinking Water 0=0il | SW=Surface Water | | | | | _ | Accreditation (please list below): | lf 'No,' No. of Business Days: | Client Job No.: | |
| E | Method of Shipment: | Relinquished To: | | Method of Shipment: | shed To: | | A A | | | | | | | | | | | UNPR. | F | Preserv Mati | | | | + | | | | | | | | ase list bel | | | |
| R | ent: | | Time: | ent: | | 2016 Time: 3 | 4 | e | - | | | | | | | | - | P | Ca | ontaine | r Type | 2 | | A=Air (filter or tube) | W=Wipe | P=Plastic | Container: | | | | | SW): | | 162017 | |
| no | | | | | | 325 | | | | | _ | | | _ | | | 1 | / | | рН | | | | · or tube) | | | | | | | | | | | |
| | | 1 | 1 | | | | | | | | | | | | | | | 4 | | | ainers | | | | | | | | | | | | | | |

W612100, Page 12 of 12

509.545.4989 Phone 509.544.6010 Fax

724.325.1776 Phone 724.733.1799 Fax

R4_12032015



ATTACHMENT E

Remedial Analytical Results



Winter 2016 – Drinking Water Sampling Results Eastgate Elementary School, Kennewick, Washington



3600 Fremont Ave. N. Seattle, WA 98103 T: (206) 352-3790 F: (206) 352-7178 info@fremontanalytical.com

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

RE: Kennewick SD Drinking Water - Eastgate Elementary Work Order Number: 1701236

January 24, 2017

Attention Ryan Mathews:

Fremont Analytical, Inc. received 16 sample(s) on 1/23/2017 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

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

Work Order Sample Summary



Fulcrum Environmental

CLIENT:

| Project: Work Order: | Kennewick SD Drinking Water - Eastgate El 1701236 | | |
|-------------------------|--|---------------------|---------------------|
| Lab Sample ID | Client Sample ID | Date/Time Collected | Date/Time Received |
| 1701236-001 | EGE12117-P-KF-01 | 01/21/2017 11:00 AM | 01/23/2017 12:25 PM |
| 1701236-002 | EGE12117-S-KF-01 | 01/21/2017 11:00 AM | 01/23/2017 12:25 PM |
| 1701236-003 | EGE12117-T-KF-01 | 01/21/2017 11:00 AM | 01/23/2017 12:25 PM |
| 1701236-004 | EGE12117-P-CF-07 | 01/21/2017 11:00 AM | 01/23/2017 12:25 PM |
| 1701236-005 | EGE12117-P-CF-11 | 01/21/2017 11:00 AM | 01/23/2017 12:25 PM |
| 1701236-006 | EGE12117-P-NF-12 | 01/21/2017 11:00 AM | 01/23/2017 12:25 PM |
| 1701236-007 | EGE12117-S-NF-12 | 01/21/2017 11:00 AM | 01/23/2017 12:25 PM |
| 1701236-008 | EGE12117-T-NF-12 | 01/21/2017 11:00 AM | 01/23/2017 12:25 PM |
| 1701236-009 | EGE12117-P-OF-15 | 01/21/2017 11:00 AM | 01/23/2017 12:25 PM |
| 1701236-010 | EGE12117-S-NF-15 | 01/21/2017 11:00 AM | 01/23/2017 12:25 PM |
| 1701236-011 | EGE12117-T-NF-15 | 01/21/2017 11:00 AM | 01/23/2017 12:25 PM |
| 1701236-012 | EGE12117-P-CF-18 | 01/21/2017 11:00 AM | 01/23/2017 12:25 PM |
| 1701236-013 | EGE12117-P-CF-19 | 01/21/2017 11:00 AM | 01/23/2017 12:25 PM |
| 1701236-014 | EGE12117-P-CF-20 | 01/21/2017 11:00 AM | 01/23/2017 12:25 PM |
| 1701236-015 | EGE12117-P-OF-24 | 01/21/2017 11:00 AM | 01/23/2017 12:25 PM |
| 1701236-016 | EGE12117-P-CF-34 | 01/21/2017 11:00 AM | 01/23/2017 12:25 PM |
| | | | |



Case Narrative

WO#: **1701236** Date: **1/24/2017**

 CLIENT:
 Fulcrum Environmental

 Project:
 Kennewick SD Drinking Water - Eastgate 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:

1701236-001A 202824: Prep Comments for EPA200.8, Sample 1701236-001A: Turbidity: 0.08 NTU 1701236-004A 202825: Prep Comments for EPA200.8, Sample 1701236-004A: Turbidity: 0.09 NTU 1701236-005A 202826: Prep Comments for EPA200.8, Sample 1701236-005A: Turbidity: 0.04 NTU 1701236-006A 202827: Prep Comments for EPA200.8, Sample 1701236-006A: Turbidity: 0.10 NTU 1701236-009A 202828: Prep Comments for EPA200.8, Sample 1701236-009A: Turbidity: 0.12 NTU 1701236-012A 202829: Prep Comments for EPA200.8, Sample 1701236-012A: Turbidity: 0.04 NTU 1701236-013A 202830: Prep Comments for EPA200.8, Sample 1701236-013A: Turbidity: 0.14 NTU 1701236-014A 202831: Prep Comments for EPA200.8, Sample 1701236-014A: Turbidity: 0.11 NTU 1701236-015A 202835: Prep Comments for EPA200.8, Sample 1701236-015A: Turbidity: 0.05 NTU 1701236-016A 202836: Prep Comments for EPA200.8, Sample 1701236-015A: Turbidity: 0.05 NTU

Qualifiers & Acronyms



WO#: **1701236** Date Reported: **1/24/2017**

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



 Work Order:
 1701236

 Date Reported:
 1/24/2017

CLIENT: Fulcrum Environmental

Project: Kennewick SD Drinking Water - Eastgate Elementary

| Lab ID: 1701236-001 Client Sample ID: EGE12117-P-KF | Collection Matrix: D | | 1/21/2017 11:00:00 AM Water | | |
|--|-------------------------|---------|--------------------------------|---------|----------------------|
| Analyses | Result | RL Qual | Units | DF | Date Analyzed |
| Drinking Water Metals by EPA Meth | od 200.8 | | Batch | ID: 159 | 998 Analyst: TN |
| Copper | 1,200 | 0.500 | μg/L | 1 | 1/23/2017 9:28:35 PM |

| Lab ID: 1701236-004 Client Sample ID: EGE12117 | Collection Date: 1/21/2017 11:00:00 AM Matrix: Drinking Water | | | | |
|---|--|---------|-------|----------|-----------------------|
| Analyses | Result | RL Qual | Units | DF | Date Analyzed |
| Drinking Water Metals by EPA | Method 200.8 | | Batcl | h ID: 15 | 998 Analyst: TN |
| Copper | 1,400 | 0.500 | µg/L | 1 | 1/23/2017 9:32:11 PM |
| | | | | | |
| | | | • • • | | 4/04/0047 44 00 00 AN |

| Lab ID: 1701236-005 | | | Collectior | n Date: | 1/21/2017 11:00:00 AM |
|------------------------------------|-------------|---------|------------|-----------|-----------------------|
| Client Sample ID: EGE12117-P-CF-11 | | | Matrix: D | rinking | Water |
| Analyses | Result | RL Qual | Units | DF | Date Analyzed |
| Drinking Water Metals by EPA M | ethod 200.8 | | Batch | n ID: 159 | 998 Analyst: TN |
| Copper | 877 | 0.500 | µg/L | 1 | 1/23/2017 9:35:48 PM |



 Work Order:
 1701236

 Date Reported:
 1/24/2017

CLIENT: Fulcrum Environmental

Project: Kennewick SD Drinking Water - Eastgate Elementary

| Lab ID: 1701236-006 Client Sample ID: EGE12117-P-I | NF-12 | | Collectior Matrix: D | | 1/21/2017 11:00:00 AM Water |
|---|--------|---------|-------------------------|----------|--------------------------------|
| Analyses | Result | RL Qual | Units | DF | Date Analyzed |
| Drinking Water Metals by EPA Method 200.8 | | | Batch | n ID: 15 | 998 Analyst: TN |
| Copper | 1,660 | 0.500 | µg/L | 1 | 1/23/2017 9:39:24 PM |

| Lab ID: 1701236-009 Client Sample ID: EGE | | Collection Date: 1/21/2017 11:00:00 AM Matrix: Drinking Water | | | |
|--|--------------------|--|------------|-----------|-----------------------|
| Analyses | Result | RL Qual | Units | DF | Date Analyzed |
| Drinking Water Metals b | y EPA Method 200.8 | | Batch | n ID: 159 | 998 Analyst: TN |
| Copper | 1,590 | 0.500 | µg/L | 1 | 1/23/2017 9:43:00 PM |
| | | | | | |
| Lab ID: 1701236-012 | | | Collectior | n Date: | 1/21/2017 11:00:00 AM |

| Lab ID: 1701236-012 Client Sample ID: EGE12117-P-CF-18 | | | | Collection Date: 1/21/2017 11:00:00 AM Matrix: Drinking Water | | | | |
|---|-----------|---------|-------|--|----------------------|--|--|--|
| Analyses Result | | RL Qual | Units | DF | Date Analyzed | | | |
| Drinking Water Metals by EPA Met | hod 200.8 | | Batch | n ID: 159 | 998 Analyst: TN | | | |
| Copper | 1,160 | 0.500 | µg/L | 1 | 1/23/2017 9:46:37 PM | | | |



 Work Order:
 1701236

 Date Reported:
 1/24/2017

CLIENT: Fulcrum Environmental

Project: Kennewick SD Drinking Water - Eastgate Elementary

| Lab ID: 1701236-013 Client Sample ID: EGE12117-P-CF-19 | | | Collection Matrix: D | | 1/21/2017 11:00:00 AM Water |
|---|--------|---------|-------------------------|---------|--------------------------------|
| Analyses | Result | RL Qual | Units | DF | Date Analyzed |
| Drinking Water Metals by EPA Method 200.8 | | | Batch | ID: 159 | 998 Analyst: TN |
| Copper | 1,480 | 0.500 | μg/L | 1 | 1/23/2017 9:57:28 PM |

| Lab ID: 17 | 701236-014 | | | Collection | Date: | 1/21/2017 11:00:00 AM |
|-------------|----------------------|-------------|---------|------------|-----------|-----------------------|
| Client Samp | ple ID: EGE12117-P· | ·CF-20 | | Matrix: D | rinking | Water |
| Analyses | | Result | RL Qual | Units | DF | Date Analyzed |
| Drinking Wa | ater Metals by EPA M | ethod 200.8 | | Batch | n ID: 159 | 999 Analyst: TN |
| Copper | | 1,730 | 0.500 | µg/L | 1 | 1/23/2017 10:11:56 PM |
| | | | | | | |
| Lab ID: 17 | 701236-015 | | | Collection | Date: | 1/21/2017 11:00:00 AM |

| | | | Concellon | Date. | 1/21/2017 11:00:007 |
|------------------------------------|----------|---------|------------|-----------|-----------------------|
| Client Sample ID: EGE12117-P-OF | -24 | | Matrix: Di | rinking V | Vater |
| Analyses | Result | RL Qual | Units | DF | Date Analyzed |
| Drinking Water Metals by EPA Metho | od 200.8 | | Batch | ID: 159 | 99 Analyst: TN |
| Copper | 2,090 | 0.500 | µg/L | 1 | 1/23/2017 10:26:21 PM |



 Work Order:
 1701236

 Date Reported:
 1/24/2017

| CLIENT: Project: | Fulcrum Environmental Kennewick SD Drinking | Water - Eastga | ate Eleme | ntary | | | |
|---------------------|--|-------------------|-----------|-------|-------------------------|-----------|--------------------------------|
| | 1701236-016 nple ID: EGE12117-P-0 | CF-34 | | | Collectior Matrix: D | | 1/21/2017 11:00:00 AM Water |
| Analyses | | Result | RL | Qual | Units | DF | Date Analyzed |
| Drinking \ | <u>Nater Metals by EPA Me</u> | <u>thod 200.8</u> | | | Batch | n ID: 159 | 999 Analyst: TN |
| Copper | | 0.600 | 0.500 | | µg/L | 1 | 1/23/2017 10:29:58 PM |



| Work Ord CLIENT: Project: | Fulcrur | 6 n Environmental vick SD Drinking Water - | Eastoate | EI | | QC SUMMARY REPORT Drinking Water Metals by EPA Method 200.8 |
|---------------------------------|----------------|--|----------|-----------|-------------|--|
| Sample ID | | SampType: MBLK Batch ID: 15999 | | | Units: µg/L | Prep Date: 1/23/2017 RunNo: 34026 Analysis Date: 1/23/2017 SeqNo: 647576 |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | | ND | 0.500 | | | |
| Sample ID | LCS-15999 | SampType: LCS | | | Units: µg/L | Prep Date: 1/23/2017 RunNo: 34026 |
| Client ID: | LCSW | Batch ID: 15999 | | | | Analysis Date: 1/23/2017 SeqNo: 647577 |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | | 93.6 | 0.500 | 100.0 | 0 | 93.6 85 115 |
| Sample ID | 1701236-014ADU | JP SampType: DUP | | | Units: µg/L | Prep Date: 1/23/2017 RunNo: 34026 |
| Client ID: | EGE12117-P-CF | -20 Batch ID: 15999 | | | | Analysis Date: 1/23/2017 SeqNo: 647579 |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | | 1,730 | 0.500 | | | 1,728 0.181 30 |
| Sample ID | 1701236-014AM | S SampType: MS | | | Units: µg/L | Prep Date: 1/23/2017 RunNo: 34026 |
| Client ID: | EGE12117-P-CF | -20 Batch ID: 15999 | | | | Analysis Date: 1/23/2017 SeqNo: 647580 |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | | 1,910 | 0.500 | 200.0 | 1,728 | 91.9 70 130 |
| Sample ID | 1701236-014AM | SD SampType: MSD | | | Units: µg/L | Prep Date: 1/23/2017 RunNo: 34026 |
| Client ID: | EGE12117-P-CF | -20 Batch ID: 15999 | | | | Analysis Date: 1/23/2017 SeqNo: 647581 |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | | 1,960 | 0.500 | 200.0 | 1,728 | 115 70 130 1,912 2.39 30 |



| Work Order: | 1701236 | | | | | | | | | QCS | SUMMAI | RY REF | PORT |
|------------------|---------------|------------|---------|----------|-----------|-------------|------|----------------|-----------|-------------|------------|----------|---------|
| CLIENT: | Fulcrum Envir | ronmental | | | | | | | rinkin | | | | |
| Project: | Kennewick SI | D Drinking | Water - | Eastgate | El | | | U | 'IIIKIII | g Water Me | IN DY EF | Aimetho | u 200.0 |
| Sample ID MB-159 | 998 | SampType | BLK | | | Units: µg/L | | Prep Date: | 1/23/20 | 017 | RunNo: 34 |)25 | |
| Client ID: MBLKV | v | Batch ID: | 15998 | | | | | Analysis Date: | 1/23/20 | 017 | SeqNo: 64 | 7526 | |
| Analyte | | F | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit H | lighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper | | | ND | 0.500 | | | | | | | | | |
| Sample ID LCS-15 | 998 | SampType | LCS | | | Units: µg/L | | Prep Date: | 1/23/20 | 017 | RunNo: 340 |)25 | |
| Client ID: LCSW | | Batch ID: | 15998 | | | | | Analysis Date: | 1/23/20 |)17 | SeqNo: 64 | 7527 | |
| Analyte | | F | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit H | lighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper | | | 94.1 | 0.500 | 100.0 | 0 | 94.1 | 85 | 115 | | | | |
| Sample ID 170123 | 5-017ADUP | SampType | DUP | | | Units: µg/L | | Prep Date: | 1/23/20 |)17 | RunNo: 34 |)25 | |
| Client ID: BATCH | I | Batch ID: | 15998 | | | | | Analysis Date: | 1/23/20 | 017 | SeqNo: 64 | 7529 | |
| Analyte | | F | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit H | lighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper | | | 1,090 | 0.500 | | | | | | 1,167 | 6.49 | 30 | |
| Sample ID 170123 | 5-017AMS | SampType | MS | | | Units: µg/L | | Prep Date: | 1/23/20 |)17 | RunNo: 34 |)25 | |
| Client ID: BATCH | I | Batch ID: | 15998 | | | | | Analysis Date: | 1/23/20 | 017 | SeqNo: 64 | 7532 | |
| Analyte | | F | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit H | lighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper | | | 1,360 | 0.500 | 200.0 | 1,167 | 94.9 | 70 | 130 | | | | |
| Sample ID 170123 | 5-017AMSD | SampType | : MSD | | | Units: µg/L | | Prep Date: | 1/23/20 |)17 | RunNo: 340 |)25 | |
| Client ID: BATCH | l | Batch ID: | 15998 | | | | | Analysis Date: | 1/23/20 | 017 | SeqNo: 64 | 7533 | |
| Analyte | | F | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit H | lighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper | | | 1,400 | 0.500 | 200.0 | 1,167 | 115 | 70 | 130 | 1,357 | 2.89 | 30 | |



Sample Log-In Check List

| CI | ient Name: | FE | Work Order Num | nber: 1701236 | |
|------------|------------------|---|----------------|---------------|----------------|
| Lo | ogged by: | Clare Griggs | Date Received: | 1/23/2017 | 12:25:00 PM |
| <u>Cha</u> | in of Cust | ody | | | |
| 1. | Is Chain of C | ustody complete? | Yes 🖌 | No 🗌 | Not Present |
| 2. | How was the | sample delivered? | <u>Client</u> | | |
| <u>Log</u> | In | | | | |
| - | Coolers are p | present? | Yes 🗹 | No 🗌 | |
| | | | _ | _ | |
| 4. | Shipping con | tainer/cooler in good condition? | Yes 🖌 | No 🗌 | |
| 5. | | Is present on shipping container/cooler? ments for Custody Seals not intact) | Yes 🗌 | No 🗌 | Not Required 🗹 |
| 6. | Was an atten | npt made to cool the samples? | Yes 🖌 | No 🗌 | NA 🗌 |
| 7. | Were all item | s received at a temperature of >0°C to 10.0°C* | Yes 🖌 | No 🗌 | |
| 8. | Sample(s) in | proper container(s)? | Yes 🖌 | No 🗌 | |
| 9. | Sufficient sar | nple volume for indicated test(s)? | Yes 🖌 | No 🗌 | |
| 10. | Are samples | properly preserved? | Yes 🖌 | No 🗌 | |
| 11. | Was preserva | ative added to bottles? | Yes 🖌 | No 🗌 | NA 🗌 |
| | | | _ | _ | HNO3 |
| | | lspace in the VOA vials? | Yes 🗌 | No 🗌 | NA 🔽 |
| - | | es containers arrive in good condition(unbroken)? | Yes 🗹 | No 🗌 | |
| 14. | Does paperw | ork match bottle labels? | Yes 🗹 | No 🗀 | |
| 15. | Are matrices | correctly identified on Chain of Custody? | Yes 🔽 | No 🗌 | |
| 16. | Is it clear what | at analyses were requested? | Yes 🖌 | No 🗌 | |
| 17. | Were all hold | ling times able to be met? | Yes 🗹 | No 🗌 | |
| <u>Spe</u> | cial Handl | ing (if applicable) | | | |
| - | | otified of all discrepancies with this order? | Yes | No 🗌 | NA 🖌 |
| | Person | Notified: Date | | | |
| | By Who | m: Via: | eMail 🗌 Pl | hone 🗌 Fax 🛛 | In Person |
| | Regardi | ng: | | | |
| | Client Ir | nstructions: | | | |
| 19. | Regardi | ng: | eMail Pl | hone 🗌 Fax 🛛 | In Person |

Item Information

| Item # | Temp ⁰C |
|--------|---------|
| Cooler | 9.8 |
| Sample | 7.1 |

^{*} Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

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| analytical.com |

| | | | Chain of Custody | 70 | Record and Laboratory Services Agreement |
|--|--|--|--|--|--|
| | | | | | Information Project No (Internal): 170, 72, 10 |
| 3600 Fremont Ave N. Tel: 20 Seattle, WA 98103 Fax: 2 | Tel: 206-352-3790 Fax: 206-352-7178 | | | 2 | Page: |
| | Fulcrum Environmental Consulting | nsulting | Project Name: | 50 Drinking | stork Elenertan |
| STUDIE COL ALC | 406 North Second Street | NE WELTCARTE SAVURA MULTO | Project No: | Entropy Conventor Connected by | : Unerda Erry C. Mathin Poston |
| e, Zip: | 98901 | r gowood of the past of these | Report To (PM): | Rvan Mathe | The Long of the second se |
| Telephone: 509.574.0839 | 9 | Fax: 509.545.8453 | PM Email: | 1 | ekmafulrum nat |
| *Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, | ulk, O = Other, P | | SL = Solid, W = Water, | ing Water, GW = Ground Water, | SW = Storm Water, WW = Waste Water |
| Sample Name | Sample Sample Time | ple Type CS CA STO | 1997 - 19 | 48-95-56-56-95-95- 69-56-56-56-56-95- 59-56-56-56-56-56-56-56-56-56-56-56-56-56- | |
| EGE 12117-12-16-101 | 454 | bw | | | HW2, preserved |
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| **Metals Analysis (Circle): MTCA-5 RCF | RCRA-8 Priority | Priority Pollutants TAL Individual: Ag | 1: Ag Al As B Ba Be Ca Cd | Co Cr C Fe Hg K Mg Mn Mo Na Ni Pb | |
| ***Anions (Circle): Nitrate Nitrite Sample Disposal: Return to Client | Chloride S | Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite Disposal by Lab (Samples will be held for 30 days unless otherwise noted. A fee may be | O-Phosphate Fluoride Nitra Id for 30 days unless otherwise noted. / | Nitrate+Nitrite Ted. A fee may be on the following business day. | es special Remarks: Bin 8/1024 preserve all unpreserved somples |
| 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. | nto this Agreem t and backside c | ent with Fremont Analytical of this Agreement. | on behalf of the Client name | ed above, that I have verified Client's | |
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| 509:545.8453 PM Email: rmathews@efulcrum.net; cc: aenbysk@efulcrum.net luct, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Was Sample Star Star Star Star Star Star Star Star | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | HWO3 grosen | | | 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 | TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Bromide O-Phosphate Fluoride Nitrate+Nitrite Turn-around times for samples received after 4:00pm will beein | Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb e O-Phosphate Fluoride Nitrate+Nitrite Turm-around times for samples Ill be held for 30 days unless otherwise noted. A fee may be on the following business day. Analytical on behalf of the Client named above, that I have verified Client's | Individual: Ag Al As B Ba Be Ca Cd Co Cr(Cu) Fe Hg K Mg Mn Mo Na Ni Pb O-Phosphate Fluoride Nitrate+Nitrite Turn-around times for samples be held for 30 days unless otherwise noted. A fee may be on the following business day. Analytical on behalf of the Client named above, that I have verified Client's Received Pate/Time |
|--|---------------------------------------|-------------|--|--|---|--|---|---|
| rmathews@efulcrum.net; cc: aenbysk@efulcrum.net W = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Wate GG GG ST ST GG ST | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | | | Cd Co Cr/Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Ti U V | Pee Hg K Mg Mn Mo Na Ni Pb | Ni Pb Sb Se Sr Sn Ti Ti U V ples special Remarks: lay. Release preserve a | Aay. |

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| | A CONTRACT AND A CONTRACT | | Date: 1/21/2017 | 117 Laboratory Project No (internal): 1701230 | 01230 of 15 |
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| Seattle, WA SOLUS | Fax: 206-352-7178 | | Project Name: KIMEWICK SD Dru | Kennewick SD Drinkin, Water-Eastgale Elenertan | ² age |
| Client: | ruicium environmental Consulting | ling | Project No: 162017 | Collected by: anenda Enlask hithen bostom | |
| Address: | 406 North Second Street | | | a Konnowick WA | 140000 |
| City, State, Zip: | Yakima, WA 98901 | | (PM): | Rvan Mathews | |
| Telephone: | 509.574.0839 Fax | Fax: 509.545.8453 | rmathews@ | to construct a fulcrum not | |
| *Matrix Codes: A = Air, AQ = A | <, 0 = 0ther, P = | S = Soil SD = Sediment | W - Water DW - Dealine Water | יישיבי אזזזזזרי, ייי מינושע אזע פינעורו אוזון ווכר בישיבי אזזזזזרי, ייי מינושע אזע פינעורו אוזן ווכר | |
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| **Metals Analysis (Circle): N | MTCA-5 RCRA-8 Priority Pollutants | TAL Individual: Ag Al As | B Ba Be Ca Cd Co Cr C Fe Hg K Mg Mn Mo Na | Ni Pb | |
| ***Anions (Circle): Nitrate | Nitrite Chloride Sulfate | Bromide O-Phosphate F | | | |
| Sample Disposal: | Return to Client Disposal by L assessed if sa | urisposal by Lab (Samples will be held for 30 days unless otherwise noted. A fee may be assessed if samples are retained after 30 days.) | otherwise noted. A fee may be on the following business day. | usiness day. Plass preserve all upreserved samples | servedsomples |
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| Sample Name Date Time (Matrix)* JU/ GT/ GT/ GT/ GT/ GT/ GT/ GT/ GT/ GT/ GT | | - 06- | EGE12117-p-0F-24 | e e | | | Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se | MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Be Ca Cd Co Cr(Cu) Fe Hg K Mg Mn Mo Na Ni Pb te< Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite Turn-around times for samples assessed if samples are retained after 30 days.) Turn-around times for samples in the following business day. | Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Co-Phosphate Fluoride Nitrate+Nitrite Turn-around times for samples in the held for 30 days unless otherwise noted. A fee may be on the following business day. Analytical on behalf of the Client named above, that I have verified Client's | sis (Circle): MTCA-S RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Ca Cd Ca Ca |
|--|----------------|-------|------------------|--------|---|---|------------------------------------|---|---|--|
| tomments HOD; unpreserved | Thuz preservea | | | | 2 | R | Ni Pb Sb Se Sr Sn Ti Ti U V | Ni Pb | Ni Pb begin | Ni Pb Sb Se Sr Sn Ti TI U V ples Special Remarks: begin Please proserve al ATAT: ASAP |



3600 Fremont Ave. N. Seattle, WA 98103 T: (206) 352-3790 F: (206) 352-7178 info@fremontanalytical.com

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

RE: Kennewick SD - Eastgate Elementary Follow-up Sampling Work Order Number: 1701339

January 31, 2017

Attention Ryan Mathews:

Fremont Analytical, Inc. received 17 sample(s) on 1/30/2017 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)



| CLIENT: Project: Work Order: | Fulcrum Environmental Kennewick SD - Eastgate Elementary Follo 1701339 | Work Order S | ample Summary |
|------------------------------------|--|---------------------|--------------------|
| Lab Sample ID | Client Sample ID | Date/Time Collected | Date/Time Received |
| 1701339-001 | EGE12817-P-CF-07 | 01/28/2017 11:00 AM | 01/30/2017 9:20 AM |
| 1701339-002 | EGE12817-S-CF-07 | 01/28/2017 11:00 AM | 01/30/2017 9:20 AM |
| 1701339-003 | EGE12817-T-CF-07 | 01/28/2017 11:00 AM | 01/30/2017 9:20 AM |
| 1701339-004 | EGE12817-P-CF-18 | 01/28/2017 11:00 AM | 01/30/2017 9:20 AM |
| 1701339-005 | EGE12817-S-CF-18 | 01/28/2017 11:00 AM | 01/30/2017 9:20 AM |
| 1701339-006 | EGE12817-T-CF-18 | 01/28/2017 11:00 AM | 01/30/2017 9:20 AM |
| 1701339-007 | EGE12817-P-CF-19 | 01/28/2017 11:00 AM | 01/30/2017 9:20 AM |
| 1701339-008 | EGE12817-S-CF-19 | 01/28/2017 11:00 AM | 01/30/2017 9:20 AM |
| 1701339-009 | EGE12817-T-CF-19 | 01/28/2017 11:00 AM | 01/30/2017 9:20 AM |
| 1701339-010 | EGE12817-P-CF-20 | 01/28/2017 11:00 AM | 01/30/2017 9:20 AM |
| 1701339-011 | EGE12817-S-CF-20 | 01/28/2017 11:00 AM | 01/30/2017 9:20 AM |
| 1701339-012 | EGE12817-T-CF-20 | 01/28/2017 11:00 AM | 01/30/2017 9:20 AM |
| 1701339-013 | EGE12817-P-CF-24 | 01/28/2017 11:00 AM | 01/30/2017 9:20 AM |
| 1701339-014 | EGE12817-S-CF-24 | 01/28/2017 11:00 AM | 01/30/2017 9:20 AM |
| 1701339-015 | EGE12817-T-CF-24 | 01/28/2017 11:00 AM | 01/30/2017 9:20 AM |
| 1701339-016 | EGE12817-P-CF-34 | 01/28/2017 11:00 AM | 01/30/2017 9:20 AM |
| 1701339-017 | EGE12817-P-CF-35 | 01/28/2017 11:00 AM | 01/30/2017 9:20 AM |



Case Narrative

WO#: **1701339** Date: **1/31/2017**

CLIENT: Fulcrum Environmental

Project: Kennewick SD - Eastgate Elementary Follow-up Sampling

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:

| 1701339-001A 204217: Prep Comments for EPA200.8, Sample 1701339-001A: Turbidiy: 0.64 NTU |
|--|
| 1701339-002A 204218: Prep Comments for EPA200.8, Sample 1701339-002A: Turbidiy: 0.07 NTU |
| 1701339-003A 204219: Prep Comments for EPA200.8, Sample 1701339-003A: Turbidiy: 0.03 NTU |
| 1701339-004A 204220: Prep Comments for EPA200.8, Sample 1701339-004A: Turbidiy: 0.08 NTU |
| 1701339-005A 204221: Prep Comments for EPA200.8, Sample 1701339-005A: Turbidiy: 0.05 NTU |
| 1701339-006A 204222: Prep Comments for EPA200.8, Sample 1701339-006A: Turbidiy: 0.01 NTU |
| 1701339-007A 204223: Prep Comments for EPA200.8, Sample 1701339-007A: Turbidiy: 0.08 NTU |
| 1701339-008A 204224: Prep Comments for EPA200.8, Sample 1701339-008A: Turbidiy: 0.05 NTU |
| 1701339-009A 204225: Prep Comments for EPA200.8, Sample 1701339-009A: Turbidiy: 0.03 NTU |
| 1701339-010A 204226: Prep Comments for EPA200.8, Sample 1701339-010A: Turbidiy: 0.07 NTU |
| 1701339-011A 204227: Prep Comments for EPA200.8, Sample 1701339-011A: Turbidiy: 0.01 NTU |
| 1701339-012A 204230: Prep Comments for EPA200.8, Sample 1701339-012A: Turbidiy: 0.03 NTU |
| 1701339-013A 204234: Prep Comments for EPA200.8, Sample 1701339-013A: Turbidiy: 0.05 NTU |
| 1701339-014A 204235: Prep Comments for EPA200.8, Sample 1701339-014A: Turbidiy: 0.06 NTU |
| 1701339-015A 204236: Prep Comments for EPA200.8, Sample 1701339-015A: Turbidiy: 0.01 NTU |
| 1701339-016A 204237: Prep Comments for EPA200.8, Sample 1701339-016A: Turbidiy: 0.02 NTU |
| 1701339-017A 204238: Prep Comments for EPA200.8, Sample 1701339-017A: Turbidiy: 0.04 NTU |

Qualifiers & Acronyms



WO#: **1701339** Date Reported: **1/31/2017**

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



 Work Order:
 1701339

 Date Reported:
 1/31/2017

CLIENT: Fulcrum Environmental

| Lab ID: 1701339-001 Collection Date: 1/28/2017 11:00:00 A Client Sample ID: EGE12817-P-CF-07 Matrix: Drinking Water | | | | | | |
|---|--------|---------|-----------------|----|----------------------|--|
| Analyses | Result | RL Qual | Units | DF | Date Analyzed | |
| Drinking Water Metals by EPA Meth | Batch | ID: 160 | 072 Analyst: TN | | | |
| Copper | 2,500 | 0.500 | µg/L | 1 | 1/30/2017 9:20:57 PM | |

| Lab ID: 1701339-002 Collection Date: 1/28/2017 11:00:00 / Client Sample ID: EGE12817-S-CF-07 Matrix: Drinking Water | | | | | | |
|---|---|---------|-------|----|----------------------|--|
| Analyses | Result | RL Qual | Units | DF | Date Analyzed | |
| Drinking Water Metals by EPA M | Drinking Water Metals by EPA Method 200.8 | | | | 072 Analyst: TN | |
| Copper | 3,670 | 0.500 | µg/L | 1 | 1/30/2017 9:24:33 PM | |
| | | | | | | |
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| Lab ID: 1701339-003 | Collection Date: 1/28/2017 11:00:00 AM | | | | | | |
|---|--|---------|-------|------------------------|----------------------|--|--|
| Client Sample ID: EGE12817-T-CF-07 | | | | Matrix: Drinking Water | | | |
| Analyses | Result | RL Qual | Units | DF | Date Analyzed | | |
| Drinking Water Metals by EPA Method 200.8 | | | | ID: 160 | 72 Analyst: TN | | |
| Copper | 1,740 | 0.500 | µg/L | 1 | 1/30/2017 9:28:09 PM | | |



 Work Order:
 1701339

 Date Reported:
 1/31/2017

CLIENT: Fulcrum Environmental

| Lab ID: 1701339-004 Collection Date: 1/28/2017 11:00:00 Al Client Sample ID: EGE12817-P-CF-18 Matrix: Drinking Water | | | | | | |
|--|--------|-----------|-----------------|----|----------------------|--|
| Analyses | Result | RL Qual | Units | DF | Date Analyzed | |
| Drinking Water Metals by EPA Meth | Batch | n ID: 160 | 072 Analyst: TN | | | |
| Copper | 1,320 | 0.500 | µg/L | 1 | 1/30/2017 9:31:45 PM | |

| Lab ID: 1701339-005 Client Sample ID: EGE12817-S-CF | Collection Date: 1/28/2017 11:00:00 AM Matrix: Drinking Water | | | | |
|--|---|---------|------------------------|----------|-----------------------|
| Analyses | Result | RL Qual | Units DF Date Analyzed | | |
| Drinking Water Metals by EPA Meth | Batch ID: 16072 Analyst: TN | | | | |
| Copper | 1,900 | 0.500 | µg/L | 1 | 1/30/2017 9:35:22 PM |
| | | | | | |
| | | | | | |
| Lab ID: 1701339-006 Client Sample ID: EGE12817-T-CF | 10 | | | | 1/28/2017 11:00:00 AM |
| Client Sample ID. EGE12017-1-CF | -10 | | Matrix: Dr | inking v | Valei |
| Analyses | Result | RL Qual | Units | DF | Date Analyzed |

| Drinking Water Metals by EPA Method | <u>d 200.8</u> | | Batch | ID: 1 | 6072 | Analyst: TN |
|-------------------------------------|----------------|-------|-------|-------|---------|----------------|
| Copper | 657 | 0.500 | µg/L | 1 | 1/30/20 | 017 9:38:58 PM |



 Work Order:
 1701339

 Date Reported:
 1/31/2017

CLIENT: Fulcrum Environmental

Project: Kennewick SD - Eastgate Elementary Follow-up Sampling

| Lab ID: 1701339-007 Collection Date: 1/28/2017 11:00:00 AN Client Sample ID: EGE12817-P-CF-19 Matrix: Drinking Water | | | | | | | |
|--|--------|---------|-----------------|----|----------------------|--|--|
| Analyses | Result | RL Qual | Units | DF | Date Analyzed | | |
| Drinking Water Metals by EPA Met | Batch | ID: 160 | 072 Analyst: TN | | | | |
| Copper | 1,610 | 0.500 | µg/L | 1 | 1/30/2017 9:42:35 PM | | |

| Lab ID: 1701339-008 Client Sample ID: EGE12817-S-CF | Collection Date: 1/28/2017 11:00:00 AM Matrix: Drinking Water | | | | |
|--|---|------------------------|------------|-------|-----------------------|
| Analyses | Result | RL Qual | Units | DF | Date Analyzed |
| Drinking Water Metals by EPA Meth | Batch ID: 16072 Analyst: TN | | | | |
| Copper | 2,370 | 0.500 | µg/L | 1 | 1/30/2017 9:46:11 PM |
| Lab ID: 1701339-009 | | | Collection | Date: | 1/28/2017 11:00:00 AM |
| Client Sample ID: EGE12817-T-CF | | Matrix: Drinking Water | | | |
| Analyses | Result | RL Qual | Units | DF | Date Analyzed |

 Drinking Water Metals by EPA Method 200.8
 Batch ID:
 16072
 Analyst:
 TN

 Copper
 941
 0.500
 µg/L
 1
 1/30/2017 9:49:48 PM



 Work Order:
 1701339

 Date Reported:
 1/31/2017

CLIENT: Fulcrum Environmental

| Lab ID: 1701339-010 Collection Date: 1/28/2017 11:00:00 / Client Sample ID: EGE12817-P-CF-20 Matrix: Drinking Water | | | | | | |
|---|--------|-----------|-----------------|----|----------------------|--|
| Analyses | Result | RL Qual | Units | DF | Date Analyzed | |
| Drinking Water Metals by EPA Meth | Batch | n ID: 160 | 072 Analyst: TN | | | |
| Copper | 1,770 | 0.500 | µg/L | 1 | 1/30/2017 9:53:24 PM | |

| Lab ID: 1701339-011 Client Sample ID: EGE12817-S-CF | -20 | | Collection Matrix: Dr | | 1/28/2017 11:00:00 AM Vater |
|--|-----------------|---------|-----------------------------------|---------|--|
| Analyses | Result | RL Qual | Units | DF | Date Analyzed |
| Drinking Water Metals by EPA Meth | <u>od 200.8</u> | | Batch | ID: 160 | 72 Analyst: TN |
| Copper | 2,250 | 0.500 | µg/L | 1 | 1/30/2017 10:04:15 PM |
| Lab ID: 1701339-012 Client Sample ID: EGE12817-T-CF Analyses | -20 Result | RL Qual | Collection Matrix: Dr Units | | 1/28/2017 11:00:00 AM Vater Date Analyzed |

| Drinking Water Metals by EPA Method | 200.8 | | | Batch ID: | 16073 | 3 Analyst: TN |
|-------------------------------------|-------|-------|----|-----------|-------|-----------------------|
| Copper | 767 | 0.500 | hð | j/L 1 | | 1/30/2017 10:18:42 PM |



 Work Order:
 1701339

 Date Reported:
 1/31/2017

CLIENT: Fulcrum Environmental

| Lab ID: 1701339-013 Client Sample ID: EGE12817-P-CF | -24 | | Collectior Matrix: D | | 1/28/2017 11:00:00 AM Water |
|--|-----------------|--------|-------------------------|-----------|--------------------------------|
| Analyses | Result | RL Qua | l Units | DF | Date Analyzed |
| Drinking Water Metals by EPA Meth | <u>od 200.8</u> | | Batch | n ID: 160 | 073 Analyst: TN |
| Copper | 2,040 | 0.500 | µg/L | 1 | 1/30/2017 10:33:07 PM |

| Lab ID: 1701339-014 Client Sample ID: EGE | 12817-S-CF-24 | | Collectior Matrix: D | | 1/28/2017 11:00:00 AM Water |
|--|--------------------|---------|-------------------------|----------|--------------------------------|
| Analyses | Result | RL Qual | Units | DF | Date Analyzed |
| Drinking Water Metals by | / EPA Method 200.8 | | Batch | n ID: 16 | 073 Analyst: TN |
| Copper | 2,410 | 0.500 | µg/L | 1 | 1/30/2017 10:36:44 PM |
| | | | | | |
| 1 ab ID: 1701330-015 | | | Collection | Dato: | 1/28/2017 11·00·00 AM |

| Lab ID: 1701339-015 | | | Collection | n Date: | 1/28/2017 11:00:00 AM |
|--------------------------------|--------------|---------|------------|-----------|-----------------------|
| Client Sample ID: EGE12817- | T-CF-24 | | Matrix: D | rinking \ | Water |
| Analyses | Result | RL Qual | Units | DF | Date Analyzed |
| Drinking Water Metals by EPA I | Method 200.8 | | Batcl | n ID: 160 | 073 Analyst: TN |
| Copper | 841 | 0.500 | µg/L | 1 | 1/30/2017 10:47:35 PM |



 Work Order:
 1701339

 Date Reported:
 1/31/2017

CLIENT: Fulcrum Environmental

| Lab ID: 1701339-016 Client Sample ID: EGE12817-P | -CF-34 | | Collection Matrix: D | | 1/28/2017 11:00:00 AM Water |
|---|-------------|---------|-------------------------|--------|--------------------------------|
| Analyses | Result | RL Qual | Units | DF | Date Analyzed |
| Drinking Water Metals by EPA M | ethod 200.8 | | Batch | ID: 16 | 073 Analyst: TN |
| Copper | ND | 0.500 | µg/L | 1 | 1/30/2017 10:51:12 PM |

| Lab ID: 1701339-017 | | | Collection | Date: | 1/28/2017 11:00:00 AM |
|------------------------------------|----------|---------|------------|-----------|-----------------------|
| Client Sample ID: EGE12817-P-CF- | 35 | | Matrix: D | rinking \ | Nater |
| Analyses | Result | RL Qual | Units | DF | Date Analyzed |
| Drinking Water Metals by EPA Metho | od 200.8 | | Batch | ID: 160 | 73 Analyst: TN |
| Copper | 1,290 | 0.500 | µg/L | 1 | 1/30/2017 10:54:48 PM |



| Work Order: | 1701339 | | | | | | | | SUMMARY REF | PORT |
|------------------|-------------|---------------------|------------|-----------|-------------|------|----------------|-----------------------|---------------------|--------|
| CLIENT: | Fulcrum Env | vironmental | | | | | - | | | |
| Project: | Kennewick S | SD - Eastgate Eleme | ntary Foll | 0 | | | D | rinking water M | etals by EPA Metho | a 200. |
| Sample ID MB-160 |)73 | SampType: MBLK | | | Units: µg/L | | Prep Date: | 1/30/2017 | RunNo: 34164 | |
| Client ID: MBLKV | v | Batch ID: 16073 | | | | | Analysis Date: | 1/30/2017 | SeqNo: 650626 | |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit H | lighLimit RPD Ref Val | %RPD RPDLimit | Qual |
| Copper | | ND | 0.500 | | | | | | | |
| Sample ID LCS-16 | 073 | SampType: LCS | | | Units: µg/L | | Prep Date: | 1/30/2017 | RunNo: 34164 | |
| Client ID: LCSW | | Batch ID: 16073 | | | | | Analysis Date: | 1/30/2017 | SeqNo: 650629 | |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit H | lighLimit RPD Ref Val | %RPD RPDLimit | Qual |
| Copper | | 101 | 0.500 | 100.0 | 0 | 101 | 85 | 115 | | |
| Sample ID 170133 | 9-012ADUP | SampType: DUP | | | Units: µg/L | | Prep Date: | 1/30/2017 | RunNo: 34164 | |
| Client ID: EGE12 | 817-T-CF-20 | Batch ID: 16073 | | | | | Analysis Date: | 1/30/2017 | SeqNo: 650634 | |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit H | lighLimit RPD Ref Val | %RPD RPDLimit | Qual |
| Copper | | 777 | 0.500 | | | | | 767.1 | 1.28 30 | |
| Sample ID 170133 | 9-012AMS | SampType: MS | | | Units: µg/L | | Prep Date: | 1/30/2017 | RunNo: 34164 | |
| Client ID: EGE12 | 817-T-CF-20 | Batch ID: 16073 | | | | | Analysis Date: | 1/30/2017 | SeqNo: 650637 | |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit H | lighLimit RPD Ref Val | %RPD RPDLimit | Qual |
| Copper | | 939 | 0.500 | 200.0 | 767.1 | 86.1 | 70 | 130 | | |
| Sample ID 170133 | 9-012AMSD | SampType: MSD | | | Units: µg/L | | Prep Date: | 1/30/2017 | RunNo: 34164 | |
| Client ID: EGE12 | 817-T-CF-20 | Batch ID: 16073 | | | | | Analysis Date: | 1/30/2017 | SeqNo: 650639 | |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit H | lighLimit RPD Ref Val | %RPD RPDLimit | Qual |
| Copper | | 925 | 0.500 | 200.0 | 767.1 | 79.1 | 70 | 130 939.3 | 1.50 30 | |



| Work Order: | 1701339 | | | | | | | | 2 30 | SUMMAR | | PORT |
|-------------------|-------------|---------------------|-------------|-----------|-------------|------|----------------|-----------|-------------|------------|----------|--------|
| CLIENT: | Fulcrum Env | vironmental | | | | | - | | | | | |
| Project: | Kennewick S | SD - Eastgate Eleme | entary Foll | 0 | | | L | rinkin | g Water Me | tais by EP | 'A Metho | a 200. |
| Sample ID MB-160 | 72 | SampType: MBLK | | | Units: µg/L | | Prep Date: | 1/30/20 | 17 | RunNo: 341 | 163 | |
| Client ID: MBLKW | V | Batch ID: 16072 | | | | | Analysis Date: | 1/30/20 | 17 | SeqNo: 650 | 0554 | |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit H | lighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper | | ND | 0.500 | | | | | | | | | |
| Sample ID LCS-16 | 072 | SampType: LCS | | | Units: µg/L | | Prep Date: | 1/30/20 |)17 | RunNo: 341 | 163 | |
| Client ID: LCSW | | Batch ID: 16072 | | | | | Analysis Date: | 1/30/20 | 17 | SeqNo: 650 | 0555 | |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit H | lighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper | | 99.9 | 0.500 | 100.0 | 0 | 99.9 | 85 | 115 | | | | |
| Sample ID 170133 | 8-001ADUP | SampType: DUP | | | Units: µg/L | | Prep Date: | 1/30/20 | 17 | RunNo: 341 | 163 | |
| Client ID: BATCH | | Batch ID: 16072 | | | | | Analysis Date: | 1/30/20 | 17 | SeqNo: 650 | 0557 | |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit H | lighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper | | 207 | 0.500 | | | | | | 211.6 | 2.01 | 30 | |
| Sample ID 1701338 | 8-001AMS | SampType: MS | | | Units: µg/L | | Prep Date: | 1/30/20 | 17 | RunNo: 341 | 163 | |
| Client ID: BATCH | | Batch ID: 16072 | | | | | Analysis Date: | 1/30/20 | 17 | SeqNo: 650 | 0563 | |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit H | lighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper | | 420 | 0.500 | 200.0 | 211.6 | 104 | 70 | 130 | | | | |
| Sample ID 1701338 | 8-001AMSD | SampType: MSD | | | Units: µg/L | | Prep Date: | 1/30/20 |)17 | RunNo: 341 | 163 | |
| Client ID: BATCH | | Batch ID: 16072 | | | | | Analysis Date: | 1/30/20 | 17 | SeqNo: 650 | 0565 | |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit H | lighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper | | 400 | 0.500 | 200.0 | 211.6 | 94.3 | 70 | 130 | 419.8 | 4.81 | 30 | |



Sample Log-In Check List

| ent Name: | FE | Work Order Numl | ber: 1701339 | |
|----------------|--|---|--|--|
| gged by: | Clare Griggs | Date Received: | 1/30/2017 | 9:20:00 AM |
| in of Cust | ody | | | |
| Is Chain of C | ustody complete? | Yes 🖌 | No 🗌 | Not Present |
| How was the | sample delivered? | <u>FedEx</u> | | |
| In | | | | |
| | present? | Yes 🖌 | No 🗌 | |
| | | | | |
| Shipping con | tainer/cooler in good condition? | Yes 🖌 | No 🗌 | |
| | | Yes | No 🗌 | Not Required 🗹 |
| Was an atten | npt made to cool the samples? | Yes 🖌 | No 🗌 | NA 🗌 |
| Were all item | s received at a temperature of $>0^{\circ}C$ to $10.0^{\circ}C^{*}$ | Yes ✔ | No 🗌 | |
| Sample(s) in | proper container(s)? | Yes 🖌 | No 🗌 | |
| Sufficient sar | nple volume for indicated test(s)? | Yes 🖌 | No 🗌 | |
| Are samples | properly preserved? | Yes 🖌 | No 🗌 | |
| Was preserva | ative added to bottles? | Yes | No 🔽 | NA 🗌 |
| Is there head | space in the VOA vials? | Yes | No 🗌 | NA 🗹 |
| Did all sample | es containers arrive in good condition(unbroken)? | Yes 🖌 | No 🗌 | |
| Does paperw | ork match bottle labels? | Yes 🗹 | No 🗌 | |
| Are matrices | correctly identified on Chain of Custody? | Yes 🖌 | No 🗌 | |
| | | Yes 🖌 | No 🗌 | |
| Were all hold | ing times able to be met? | Yes 🗹 | No 🗌 | |
| cial Handli | ing (if applicable) | | | |
| | | Yes | No 🗌 | NA 🗹 |
| Person | Notified: Date | | | |
| By Who | m: Via: | eMail 🗌 Ph | one 🗌 Fax | In Person |
| Regardi | ng: | | | |
| Client In | structions: | | | |
| | in of Custa Is Chain of C How was the In Coolers are p Shipping con Custody Seal (Refer to corr Was an atter Was an atter Was an atter Was an atter Sample(s) in Sufficient sar Are samples Was preserva Is there head Did all sampl Does paperw Are matrices Is it clear wha Were all hold Cial HandI Was client no Person By Who Regardi | gged by: Clare Griggs in of Custody Is Chain of Custody complete? How was the sample delivered? In Coolers are present? Shipping container/cooler in good condition? Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact) Was an attempt made to cool the samples? Were all items received at a temperature of >0°C to 10.0°C* Sample(s) in proper container(s)? Sufficient sample volume for indicated test(s)? Are samples properly preserved? Was preservative added to bottles? Is there headspace in the VOA vials? Did all samples containers arrive in good condition(unbroken)? Does paperwork match bottle labels? Are matrices correctly identified on Chain of Custody? Is it clear what analyses were requested? Were all holding times able to be met? Cial Handling (if applicable) Was client notified of all discrepancies with this order? Person Notified: Date | gged by: Clare Griggs Date Received: in of Custody Is Chain of Custody complete? Yes Yes Yes How was the sample delivered? FedEx In Image: Coolers are present? Yes Yes Yes Coolers are present? Yes Yes Yes Yes Yes Yes Shipping container/cooler in good condition? Yes Yes Yes Yes Yes Custody Seals present on shipping container/cooler? Yes Yes Yes Yes Yes Was an attempt made to cool the samples? Yes Yes Yes Yes Yes Sufficient sample volume for indicated test(s)? Yes Yes Yes Yes Yes Sufficient sample volume for indicated test(s)? Yes Yes Yes Yes Yes Sufficient sample volume for indicated test(s)? Yes Yes | gged by: Clare Griggs Date Received: 1/30/2017 in of Custody Is Chain of Custody complete? Yes No No How was the sample delivered? EadEx In In In Coolers are present? Yes ✓ No No Shipping container/cooler in good condition? Yes ✓ No In Custody Seals present on shipping container/cooler? Yes ✓ No In Custody Seals present on shipping container/cooler? Yes ✓ No In Was an attempt made to cool the samples? Yes ✓ No In Were all items received at a temperature of >0°C to 10.0°C* Yes ✓ No In Sufficient sample volume for indicated test(s)? Yes ✓ No In Sufficient samples containers arrive in good condition(unbroken)? Yes No In Did all samples containers arrive in good condition(unbroken)? Yes No In Did all samples containers arrive in good condition(unbroken)? Yes No In Are matrices correctly identified on Chain of Custod? Yes |

Item Information

| Item # | Temp °C |
|--------|---------|
| Cooler | 9.0 |
| Sample | 9.8 |

^{*} Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

COC 1.1 - 4.5.16 - 1 of 2

www.fremontanalytical.com

| Chain of Custody Record and Lat Inter 1/12/17/17 Prices Prices 23:2777 Prices Prices Pr | Date/Time TAT → SameDay^ NextDay^ 2 Day 3 Day STD ^Please coordinate with the lab in advance | me Received x | Relinquished Date/Time |
|---|--|--|--|
| Freemone Chain of Custody Record and Laboratory Services Agreement new Nr R: 308-353.73 Note: 1/28/2017 Laboratory Services Agreement Note: Note: 1/28/2017 Laboratory Services Agreement Service Nr R: 308-353.73 Note: 1/28/2017 Laboratory Services Agreement Service Nr Service Nr Note: N | y | to this Agreement with Fremont Analytical on behalf of the Client nar and backside of this Agreement. me The Market Received | agreement to each of the terms on the front Reimquished |
| Chain of Custody Record and Laboratory Services Agreement | l begin day. | Disposal by Lab (Samples will be held for 30 days unless otherwise not assessed if samples are retained after 30 days.) | Sample Disposal: Return to Client |
| Chain of Custody Record and Laboratory Services Agreement | Turn-around times for samples | Sulfate Bromide O-Phosphate Fluoride | Nitrate |
| Instruction Instruction Instruction Instruction Area Fit 206-532-3797 Instruction Instruction Instruction Instruction Area Fit 206-532-3797 Instruction Instruction Instruction Instruction Instruction Area Areasean Instruction Instruction Instruction Instruction Instruction Area Areasean Instruction Instruction Instruction Instruction Instruction Instruction Instruction Instruction Area Area Instruction In | Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti TI U V | Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca | MTCA-5 |
| Image: Chain of Custody Record and Laboratory Services Agreement Custory Record and Laboratory Services Agreement Custory Record and Laboratory Services Agreement Custory Records and Laboratory Services Agreement Services Records and Laboratory Services Agreement Custory Records and Laboratory Services Agreement Custory Records and Laboratory Services Agreement Custory Records and Laboratory Services Agreement Services Records and Recor | | e t e | -P-CF- |
| Image: Figure Function I | | | 4 |
| Image: Notice of Custody Record and Laboratory Services Agreement of the 206-32-379 Date: 1/28/2017 Laboratory Services Agreement of the 206-32-379 Name: Tel: 206-32-379 For 206-32-379 | | | 12 |
| Image: Autor Districts I | 8 | | \$7-2-6-680374 |
| Freemont Chain of Custody Record and Laboratory Services Agreemer Annew File: 206-325-3739 Annew File: 206-325-3739 Annew File: 206-325-3739 File: 206-325-3739 File: 1/28/2017 Annew File: 206-325-3739 File: 206-325-3739 File: 1/28/2017 Annew Services Agreemer Allower File: 1/28/2017 Allower Services Agreemer Allower Services Agreemer Allower Services Agreemer Allower Service Agreemer Service Agreemer Service Agreemer Allower Service Agreemer Service Agreemer Service Agreemer Serv | | | EGE12817-7-C12-18 |
| Image: Notice of Custody Record and Laboratory Services Agreemer Anew. Tel: 26-352-3739 Date: 1/28/2017 Lacemon Project No (internal) Anew. Tel: 26-352-3739 Project Name. Kannewick SD - Eastgate Elementary Follow-Up Sampling Tube (Main Nu 9901) Add Noth Second Street Project Name. Kannewick SD - Eastgate Elementary Follow-Up Sampling Tube (Main Nu 9901) Storage Fai: 305-352-333 Fai: 305-352-333 Project Name. Kannewick SD - Eastgate Elementary Follow-Up Sampling Tube (Main Nu 9901) Storage Fai: 305-352-3333 Fai: 305-352-3333 Project Name. Kannewick SD - Eastgate Elementary Follow-Up Sampling Tube (Main Nu 9901) Storage Fai: 305-352-3333 Fai: 305-352-3333 Project Name. Kannewick SD - Eastgate Elementary Follow-Up Sampling Storage Fai: 305-352-3333 Fai: 305-352-3333 Project Name. Mainteest Storage Elementary Follow-Up Sampling Storage Fai: 305-352-3333 Fai: 305-352-3333 Project Name. Mainteest Storage Elementary Follow-Up Sampling Storage Fai: 305-352-3333 Fai: 305-352-3333 Project Name. Mainteest Storage Elementary Follow-Up Sampling Storage Fai: 305-352-3333 </td <td>8</td> <td></td> <td>S-CE-</td> | 8 | | S-CE- |
| Image: Line of Custody Record and Laboratory Services Agreemer Anew. Tel: 206-325-379 Avew. Tel: 206-325-379 Fullow Records and Laboratory Project No Internal: Date: 1/28/2017 Laboratory Project No Internal: Fullow Records Street Project Name Kennewick SD - Eastgate Elementary Follow-Up Sampling Yakima, WA 98901 Far: 505.55.853 Polet Name Kennewick SD - Eastgate Elementary Follow-Up Sampling St05.574.0839 Far: 505.55.8533 Polet Name Kennewick SD - Eastgate Elementary Follow-Up Sampling Nr. Act - Aqueous, B = Buk, O - Other, P = Product, S = Solil, SD = Sediment, St = Solil, W = Water, OW = forulary School, kennewick, WA Son Train Mathews Nr. Mathews Sumple Date: Traine Sumple Sample Sumple Date: Traine Sumple Sample The CF-O7 Valarya, W = Water, OF Sum Valar, OF Sum Valar, OF Sum Valar, OF Sum Valar, OF No. CF-O7 Valarya, W = Son, Traine Sum Valar, OF Sum Valar, OF Sum Valar, OF Sum Valar, OF No. CF-O7 Valarya, W = Son, Valar, Valar, OF Sum Valar, Valar, Valar, Valar, OF Sum Valar, Valar, Valar, Volar, Volar | | | 1× |
| Image: Subscription Chain of Custody Record and Laboratory Services Agreemer Anew Tel: 206-332-3729 Anew Tel: 206-332-3729 Fullrum Environmental Consulting Project Name: Agreemer 406 North Second Street Project Name: Agreemer Vakima, WA 39901 Fas: 509.548-843 S09.574.0839 Fas: 509.548-843 Nr. AC = Aqueous, B = Buik, C = Other, P = Product, S = Solid, SD = Sediment, S = Solid, W = Water, DW = binking Water, SW = Cound Water, SW = Som Wat | | | -T-CF |
| Area Tel: 206-352-3790 Date: 1/28/2017 Laboratory Services Agreement Fullow Tel: 206-352-3790 Project Name Interruption Interruption Fullow Tel: 206-352-3790 Project Name Interruption Interruption Fullow Fullow Tel: 206-352-3790 Project Name Interruption Interruption Fullow Fullow Fullow Project Name Kennewick SD - Eastgate Elementary Follow-Up Sampling Interruption Yakima, WA 98901 Sog 574.0839 Fas: 503-55-4843 Project No: Eastgate Elementary Follow-Up Sampling Yakima, WA 98901 Fas: 503-55-4843 Project No: Eastgate Elementary School, Kennewick, WA Sog 574.0839 Fas: 503-55-4843 Project No: Eastgate Elementary School, Kennewick, WA Kr. AC = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SI = Soil, W = Water, DW = Dinning Water, GW = Ground Water, W = Storm Water, WH = Water W = Storm Water, WH = Water Area Area Song base Song base Song base Song base Song base Area Area Song base Song base Song base Song base Song base Song base Song ba | | | -5-CF |
| Anem. Tel: 206-352-3790 Desc. 206-352-3790 Polect Name. Memewick SD - Eastgate Elementary Follow-Up Sampling Page: | | 11:00 DW | -P-CF-07 |
| Analystical Chain of Custody Record and Laboratory Services Agreemen Are N. Tel: 206-352-7178 Are N. Tel: 206-352-7178 Fulcrum Environmental Consulting Project Name: 406 North Second Street Project No: 406 North Second Street Location: Vakima, WA 98901 Fax: 509.545.8453 S09.574.0839 Fax: 509.545.8453 Project, St - Soil, SD = Sediment, St = Soild, W = Water, DW = Dinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water | | Sample Sample Street St | |
| Analytical Analytical Analytical Date: 1/28/2017 Ave N. Tel: 206-352-7178 Fax: 206-352-7178 Project Name: Fulcrum Environmental Consulting Project Name: Ado North Second Street Project No: Vakima, WA 98901 Fax: 509.545.8453 S09.574.0839 Fax: 509.545.8453 S09.574.0839 Fax: 509.545.8453 Mir AO = Anuevic R = Bulk On Charler De Donuter Conditions of Conditio | ung water, | - Control, F - Friender, S - Soni, Sp - Securiterit, St - Sonia, W = Water, | 1 |
| Freemont Chain of Custody Record and Laboratory Services Agreemen Analytican International Consulting Date: 1/28/2017 Laboratory Project No (International Consulting Ave N. Tel: 206-352-3790 Forget Name: 1/28/2017 Laboratory Project No (International Consulting Date: 1/28/2017 Laboratory Project No (International Consulting Fulcrum Environmental Consulting Project Name: Nennewick SD - Eastgate Elementary Follow-Up Sampling Orgotet No: 162017 Collected by: Nathet Bosthrow 406 North Second Street Project No: 162017 Collected by: Nathet Bosthrow Date: 162017 Collected by: Nathet Bosthrow Yakima, WA 98901 Report To (PM): Ryan Mathews Ryan Mathews Ryan Mathews | | Fax: 509.545.8453 PM Email: | 509.574 |
| Fremont Ave N. Tel: 206-352-3790 Date: 1/28/2017 Laboratory Project No (Internal): TULWAY remont Ave N. Tel: 206-352-7178 Fax: 206-352-7178 Project Name: Manuevick SD - Eastgate Elementary Follow-Up Sampling Internal: TULWAY Fulcrum Environmental Consulting Project Name: Kennewick SD - Eastgate Elementary Follow-Up Sampling Internal: TULWAY s: 406 North Second Street Location: Eastgate Elementary School, Kennewick, WA Eastgate Elementary School, Kennewick, WA | 1 | | |
| Fremont Ave N. Tel: 206-352-3790 Chain of Custody Record and Laboratory Services Agreement remont Ave N. Tel: 206-352-3790 Date: 1/28/2017 Laboratory Project No (internal): remont Ave N. Tel: 206-352-3790 Project Name: Marker SD - Eastgate Elementary Follow-Up Sampling Fulcrum Environmental Consulting Project No: 162017 Collected by: Marker Bostrown | | supersual affects of spectrum and a second second | |
| Chain of Custody Record and Laboratory Services Agreemen Analytical N. Tel: 206-352-3790 Fax: 206-352-7178 | Sostrom | and the second se | 10 M 10 M |
| The Chain of Custody Record and Laboratory Services Agreemen | دو | | Ŗ |
| mt Chain of Custody Record and Laboratory Services Agreemen | 1/28/2017 Laboratory Project No (Internal): 1018 | THRAL | Analy |
| | ustody Record and Laboratory Services Agreement | nt | Fremo |

| | remo | ont | | | | Chain of | Custoc | ly Recor | d and | د م |
|--|------------------------------------|--|---------------------------------|---|---|--|--|---|--|---|
| | Anai | ytical | | | | | Date: | 1 | /28/2017 | Laboratory Project No (internal): |
| 3600 Fremont Ave N. Seattle, WA 98103 | Tel: 20 Fax: 2 | Tel: 206-352-3790 Fax: 206-352-7178 | | | | | | | | Page: 0 of: 2 |
| Client: | Fulcrum Env | Fulcrum Environmental Consulting | Consulting | | | Project Name: | ne: | newick SD - Eas | tgate Elemen | |
| Address: | 406 North S | 406 North Second Street | Tothe Value | 171 GV 8.1 | | Location: | | TUZULI | shool Kosses | |
| City, State, Zip: | Yakima, WA 98901 | 98901 | 168 m | 11 - T - B - T | Carl E. Migton | Report To (PM): | 1 | Ryan Mathews | CIUUI, NEIIIEW | NICK, WA |
| Telephone: | 509.574.0839 | 6 | Fax: 50 | Fax: 509.545.8453 | 19475 A 1947 | PM Email: | | rmathews@efulcrum.net; cc: aenbysk@efulcrum.net | net: cc: aenbys | sk@efulcrum.net |
| *Matrix Codes: A = Air, AQ = | AQ = Aqueous, B = Bulk, | ulk, O = Other, | | P = Product, S = Soil, SD = Sediment, | | SL = Solid, W = Water, DW = Drinking Water, | r, DW = Drinking | Water, GW = Gro | W = Ground Water, SW | SW = Storm Water, WW = Waste Water |
| Sample Name | | | Sample | Sample | A CARE A | | 844 127 82 10 21 12 12 12 12 12 12 12 12 12 12 12 12 | | | |
| 77-5 | -cf-26 | | | | | | 8 | | | Preservoir cade (D. |
| E661287-T- | cf-20 | - | | - | and the second | 2012 N. 12 | 8 | | | |
| EC1312817-P-CF-24 | CF-24 | _ | | | | | 8 | | | |
| ECE12817-5-CF-24 | CF-24 | - | | 1 | | and and and | 8 | | | |
| BGEIJ817-T- | -(1-24 | ~~ | | | | | 30 | | | 6 |
| EGE12817-8-05-34 | (F-34 | | | | | | \otimes | | | |
| ENE12817-P- CF-35 | CF-35 | q | 4 | 4 | | | 8 | | | K |
| | | | | | | | | | | |
| **Metals Analysis (Circle): | MTCA-5 RC | RCRA-8 Prior | Priority Pollutants | TAI | Individual: Aa | | | | | |
| Nitrat | Niteito | | C. 16-1- | | | | | E IIB | A WE WIT WO NA NI PO SO SE | 3 |
| Sample Disposal: | Return to Client | | sposal by Lab sessed if samp | Bromide (Samples will ples are retain | Sultate Bromide O-Phosphate Disposal by Lab (Samples will be held for 30 day assessed if samples are retained after 30 days.) | Suifate Bromide O-Phosphate Fluoride Nitrate+Nitrite 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.) | Nitrate+Nitrite noted. A fee may | | received after 4:00pm will begin on the following business day. | egin y. All charalise HUD- preserved |
| 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. | orized to enter rms on the fror | into this Agre | ement with de of this Ag | Fremont Au preement. | nalytical on beh | alf of the Client | named above, ti | hat I have verific | ed Client's | |
| x Connerder WES | 128/2017 | 128/2017; 1530 | Õ | | Received x | | Date/Time | ne | | TAT ; ASAP |
| x Relinquished | Date/Time | Time | | | Received x | | Date/Time | ne | | TAT → SameDay^ NextDay^ 2 Day 3 Day STD |



3600 Fremont Ave. N. Seattle, WA 98103 T: (206) 352-3790 F: (206) 352-7178 info@fremontanalytical.com

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

RE: Kennewick SD Drinking Water - Eastgate Elementary Work Order Number: 1703044

March 13, 2017

Attention Ryan Mathews:

Fremont Analytical, Inc. received 14 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

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



| CLIENT: Project: Work Order: | Fulcrum Environmental Kennewick SD Drinking Water - Eastgate El 1703044 | Work Order S | Sample Summary |
|------------------------------------|---|---------------------|--------------------|
| Lab Sample ID | Client Sample ID | Date/Time Collected | Date/Time Received |
| 1703044-001 | EGE3417-P-CF-07 | 03/04/2017 7:00 AM | 03/06/2017 8:54 AM |
| 1703044-002 | EGE3417-P-NF-12 | 03/04/2017 7:00 AM | 03/06/2017 8:54 AM |
| 1703044-003 | EGE3417-S-NF-12 | 03/04/2017 7:00 AM | 03/06/2017 8:54 AM |
| 1703044-004 | EGE3417-T-NF-12 | 03/04/2017 7:00 AM | 03/06/2017 8:54 AM |
| 1703044-005 | EGE3417-P-OF-15 | 03/04/2017 7:00 AM | 03/06/2017 8:54 AM |
| 1703044-006 | EGE3417-P-CF-19 | 03/04/2017 7:00 AM | 03/06/2017 8:54 AM |
| 1703044-007 | EGE3417-P-CF-20 | 03/04/2017 7:00 AM | 03/06/2017 8:54 AM |
| 1703044-008 | EGE3417-S-CF-20 | 03/04/2017 7:00 AM | 03/06/2017 8:54 AM |
| 1703044-009 | EGE3417-T-CF-20 | 03/04/2017 7:00 AM | 03/06/2017 8:54 AM |
| 1703044-010 | EGE3417-P-OF-24 | 03/04/2017 7:00 AM | 03/06/2017 8:54 AM |
| 1703044-011 | EGE3417-S-OF-24 | 03/04/2017 7:00 AM | 03/06/2017 8:54 AM |
| 1703044-012 | EGE3417-T-OF-24 | 03/04/2017 7:00 AM | 03/06/2017 8:54 AM |
| 1703044-013 | EGE3417-P-CF-34 | 03/04/2017 7:00 AM | 03/06/2017 8:54 AM |
| 1703044-014 | EGE3417-P-CF-35 | 03/04/2017 7:00 AM | 03/06/2017 8:54 AM |



Case Narrative

WO#: **1703044** Date: **3/13/2017**

 CLIENT:
 Fulcrum Environmental

 Project:
 Kennewick SD Drinking Water - Eastgate 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:

1703044-001A 209766: Prep Comments for EPA200.8, Sample 1703044-001A: Turbidity: 0.12 NTU 1703044-002A 209797: Prep Comments for EPA200.8, Sample 1703044-002A: Turbidity: 0.01 NTU 1703044-005A 209798: Prep Comments for EPA200.8, Sample 1703044-005A: Turbidity: 0.08 NTU 1703044-006A 209799: Prep Comments for EPA200.8, Sample 1703044-006A: Turbidity: 0.04 NTU 1703044-007A 209800: Prep Comments for EPA200.8, Sample 1703044-007A: Turbidity: 0.00 NTU 1703044-010A 209801: Prep Comments for EPA200.8, Sample 1703044-010A: Turbidity: 0.02 NTU 1703044-013A 209802: Prep Comments for EPA200.8, Sample 1703044-013A: Turbidity: 0.00 NTU 1703044-014A 209803: Prep Comments for EPA200.8, Sample 1703044-014A: Turbidity: 0.00 NTU

Qualifiers & Acronyms



WO#: **1703044** Date Reported: **3/13/2017**

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



 Work Order:
 1703044

 Date Reported:
 3/13/2017

CLIENT: Fulcrum Environmental **Project:** Kennewick SD Drinking Water - Eastgate Elementary Collection Date: 3/4/2017 7:00:00 AM Lab ID: 1703044-001 Client Sample ID: EGE3417-P-CF-07 Matrix: Drinking Water Analyses **RL** Qual Units DF **Date Analyzed** Result Batch ID: 16429 Analyst: TN Drinking Water Metals by EPA Method 200.8 Copper 837 0.500 µg/L 1 3/10/2017 7:41:49 PM Lab ID: 1703044-002 Collection Date: 3/4/2017 7:00:00 AM Client Sample ID: EGE3417-P-NF-12 Matrix: Drinking Water DF Analyses Result **RL** Qual Units **Date Analyzed** Drinking Water Metals by EPA Method 200.8 Batch ID: 16429 Analyst: TN Copper 1,350 0.500 µg/L 3/10/2017 7:45:51 PM 1 Lab ID: 1703044-005 Collection Date: 3/4/2017 7:00:00 AM Client Sample ID: EGE3417-P-OF-15 Matrix: Drinking Water Analyses Result **RL** Qual Units DF **Date Analyzed** Drinking Water Metals by EPA Method 200.8 Batch ID: 16429 Analyst: TN Copper 1,270 0.500 µg/L 1 3/10/2017 7:49:53 PM



 Work Order:
 1703044

 Date Reported:
 3/13/2017

CLIENT: Fulcrum Environmental **Project:** Kennewick SD Drinking Water - Eastgate Elementary Collection Date: 3/4/2017 7:00:00 AM Lab ID: 1703044-006 Client Sample ID: EGE3417-P-CF-19 Matrix: Drinking Water Analyses **RL** Qual Units DF **Date Analyzed** Result Batch ID: 16429 Analyst: TN Drinking Water Metals by EPA Method 200.8 Copper 1,300 0.500 µg/L 1 3/10/2017 7:53:54 PM Lab ID: 1703044-007 Collection Date: 3/4/2017 7:00:00 AM Client Sample ID: EGE3417-P-CF-20 Matrix: Drinking Water DF Analyses Result **RL** Qual Units **Date Analyzed** Drinking Water Metals by EPA Method 200.8 Batch ID: 16429 Analyst: TN Copper 1,280 0.500 µg/L 3/10/2017 8:06:01 PM 1 Lab ID: 1703044-010 Collection Date: 3/4/2017 7:00:00 AM Client Sample ID: EGE3417-P-OF-24 Matrix: Drinking Water Result **RL** Qual Units DF **Date Analyzed** Analyses Drinking Water Metals by EPA Method 200.8 Batch ID: 16429 Analyst: TN Copper 1,650 0.500 µg/L 1 3/10/2017 8:10:03 PM



 Work Order:
 1703044

 Date Reported:
 3/13/2017

CLIENT: Fulcrum Environmental **Project:** Kennewick SD Drinking Water - Eastgate Elementary Lab ID: 1703044-013 Collection Date: 3/4/2017 7:00:00 AM Client Sample ID: EGE3417-P-CF-34 Matrix: Drinking Water Analyses Result **RL** Qual Units DF **Date Analyzed** Batch ID: 16429 Analyst: TN **Drinking Water Metals by EPA Method 200.8** Copper ND 0.500 µg/L 1 3/10/2017 8:14:05 PM Collection Date: 3/4/2017 7:00:00 AM Lab ID: 1703044-014 Client Sample ID: EGE3417-P-CF-35 Matrix: Drinking Water Units DF Analyses Result **RL** Qual **Date Analyzed** Batch ID: 16429 Drinking Water Metals by EPA Method 200.8 Analyst: TN Copper 1,220 0.500 µg/L 1 3/10/2017 8:18:07 PM



| | 703044 | | | | | QC | SUMMARY REPOR |
|---------------------|------------------------------|----------|-----------|-------------|------|--------------------------------|-------------------------|
| - | ulcrum Environmental | | | | | Drinking Water M | stale by EBA Mothod 200 |
| Project: Ke | ennewick SD Drinking Water - | Eastgate | El | | | Drinking water we | etals by EPA Method 200 |
| Sample ID MB-16429 | SampType: MBLK | | | Units: µg/L | | Prep Date: 3/6/2017 | RunNo: 34876 |
| Client ID: MBLKW | Batch ID: 16429 | | | | | Analysis Date: 3/10/2017 | SeqNo: 665941 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit HighLimit RPD Ref Val | %RPD RPDLimit Qual |
| Copper | ND | 0.500 | | | | | |
| Sample ID LCS-16429 | SampType: LCS | | | Units: µg/L | | Prep Date: 3/6/2017 | RunNo: 34876 |
| Client ID: LCSW | Batch ID: 16429 | | | | | Analysis Date: 3/10/2017 | SeqNo: 665944 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit HighLimit RPD Ref Val | %RPD RPDLimit Qual |
| Copper | 89.6 | 0.500 | 100.0 | 0 | 89.6 | 85 115 | |
| Sample ID 1703042-0 | 01ADUP SampType: DUP | | | Units: µg/L | | Prep Date: 3/6/2017 | RunNo: 34876 |
| Client ID: BATCH | Batch ID: 16429 | | | | | Analysis Date: 3/10/2017 | SeqNo: 665946 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit HighLimit RPD Ref Val | %RPD RPDLimit Qual |
| Copper | 962 | 0.500 | | | | 990.4 | 2.93 30 |
| Sample ID 1703042-0 | 01AMS SampType: MS | | | Units: µg/L | | Prep Date: 3/6/2017 | RunNo: 34876 |
| Client ID: BATCH | Batch ID: 16429 | | | | | Analysis Date: 3/10/2017 | SeqNo: 665947 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit HighLimit RPD Ref Val | %RPD RPDLimit Qual |
| Copper | 1,170 | 0.500 | 200.0 | 990.4 | 89.8 | 70 130 | |
| Sample ID 1703042-0 | 01AMSD SampType: MSD | | | Units: µg/L | | Prep Date: 3/6/2017 | RunNo: 34876 |
| Client ID: BATCH | Batch ID: 16429 | | | | | Analysis Date: 3/10/2017 | SeqNo: 665948 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit HighLimit RPD Ref Val | %RPD RPDLimit Qual |
| Copper NOTES: | 1,110 | 0.500 | 200.0 | 990.4 | 59.2 | 70 130 1,170 | 5.37 30 S |

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.



Sample Log-In Check List

| С | lient Name: | FE | Work Order Num | ber: 1703044 | |
|------------|----------------|---|----------------|--------------|--------------|
| Lo | ogged by: | Erica Silva | Date Received: | 3/6/2017 8 | 3:54:00 AM |
| <u>Cha</u> | in of Cust | ody | | | |
| 1. | Is Chain of C | ustody complete? | Yes 🖌 | No 🗌 | Not Present |
| 2. | How was the | sample delivered? | <u>FedEx</u> | | |
| <u>Log</u> | . In | | | | |
| - | Coolers are p | present? | Yes 🖌 | No 🗌 | |
| | | | _ | | |
| 4. | Shipping con | tainer/cooler in good condition? | Yes 🖌 | No 🗌 | _ |
| 5. | | Is present on shipping container/cooler? ments for Custody Seals not intact) | Yes | No 🗹 | Not Required |
| 6. | Was an atten | npt made to cool the samples? | Yes 🖌 | No 🗌 | |
| 7. | Were all item | is received at a temperature of >0°C to 10.0°C* | Yes 🗹 | No 🗌 | |
| 8. | Sample(s) in | proper container(s)? | Yes 🖌 | No 🗌 | |
| 9. | Sufficient sar | nple volume for indicated test(s)? | Yes 🖌 | No 🗌 | |
| 10. | Are samples | properly preserved? | Yes 🖌 | No 🗌 | |
| 11. | Was preserva | ative added to bottles? | Yes 🖌 | No 🗌 | NA 🗌 |
| | | | | | HNO3 |
| | | lspace in the VOA vials? | Yes | No 🗌 | NA 🔽 |
| - | | es containers arrive in good condition(unbroken)? | Yes 🗹 | No 🗌 | |
| 14. | Does paperw | ork match bottle labels? | Yes 🖌 | No 🗀 | |
| 15. | Are matrices | correctly identified on Chain of Custody? | Yes 🖌 | No 🗌 | |
| | | at analyses were requested? | Yes 🖌 | No 🗌 | |
| 17. | Were all hold | ling times able to be met? | Yes 🗹 | No 🗌 | |
| Spe | cial Handl | ing (if applicable) | | | |
| - | | bified of all discrepancies with this order? | Yes | No 🗌 | NA 🖌 |
| | | Notified: Date | | | |
| | By Who | | eMail Pr | none 🗌 Fax 🛛 | In Person |
| | Regardi | , | | | |
| | - | nstructions: | | | |
| 10 | Additional rer | | | | |

Item Information

| Item # | Temp ⁰C |
|--------|---------|
| Cooler | 4.2 |
| Sample | 2.8 |

^{*} Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

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|--|-------------------|--|--|--------------------------|--|---|-----------------------------|--|--------------|--|---|--|---------------------|---|-----------|
| | Analy | ylical | | | | | | Date: | | 3/4/2017 | 7 | Laboratory Project No (internal): | No (internal): 7 | 1703044 | |
| 3600 Fremont Ave N. Seattle, WA 98103 | Tel: 21 Fax: 2 | Tel: 206-352-3790 Fax: 206-352-7178 | | | | Ð | Project Name: | | newick SD D | rinking Wate | Page: Kennewick SD Drinking Water - Eastgate Elementary | Page: | | Stradium i Panatana gan i | ge 10 c |
| Client: | Fulcrum Envi | Fulcrum Environmental Consulting | onsulting | | | P | Project No: | | 162017.03 | w | | Collected by: | | | Pa |
| Address: | 406 North S | 406 North Second Street | t | n (see) and | 191 (Q. 191 | 5 | Location: | East | gate Eleme | Eastgate Elementary, Kennewick, WA | iewick, WA | | | | |
| City, State, Zip: | Yakima, WA, 98901 | , 98901 | - 1. Surf. 40 | A THE LAW | INCOMENTS | R | Report To (PM): | | Ryan Mathews | SECT STATES | | | | | |
| Telephone: | 509.574.0839 | 9 | Fax: 50 | Fax: 509.575.8453 | 11 10 11 11 11 11 11 11 11 11 11 11 11 1 | P | PM Email: | rmat | thews@efu | lcrum.net; c | rmathews@efulcrum.net; cc:aenbysk@efulcrum.net | efulcrum.net | | | |
| *Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, | Aqueous, B = B | | $O=Other, \ P=Product, \ S=Soil, \ SD=Sediment, \ SL=Solid, \ W=Water,$ | , S = Soil, SD |) = Sediment, | SL = Solid, V | | DW = Drinking Water, | ater, | V = Ground V | Vater, SW = | GW = Ground Water, SW = Storm Water, WW = Waste Water | laste Water | and success in the second provide and | |
| | | - | | Sample | especial city | | | (27 - 27 - 27 - 27 - 27 - 27 - 27 - 27 - | | | | and a state of the | K | | |
| Sample Name | -UR-07 | Date | 7: AM | (Matrix)* | 20 07 8 | 1 | 00 50 | | 01 | | | ~ | Com | Comments | |
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| 5 ECE 3417 - P-OF | 51-15 | 1 | | | | | | × | | | | | | | |
| 6 EGES412 -P-CF- | 0-19 | | | | | | | × | | | | | | a shekara ta shekara | |
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| r S- 61237138 | 16-20 | | | | | | | | | | 1 | + | | | |
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| 12653417-P | -0F-24 | e | E | ¢ | | | | \times | | | | | | | |
| - | MTCA-5 R | RCRA-8 Pri | Priority Pollutants | s TAL | Individual: | Ag Al As B | Ba Be Ca | Cd Co Cr | Cu Fe Hg | | K Mg Mn Mo Na Ni Pb | Pb Sb Se Sr Sn Ti | TIUV Zn | | a do selo |
| ***Anions (Circle): Nitrate | e Nitrite | Chloride | Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite Disposal by Lab (Samples will be held for 30 days unless otherwise noted. A fee may be | Bromide (Samples will | O-Phosphate be held for 30 days | hate Fli days unless c | Fluoride s otherwise not | Nitrate+Nitrite ted. A fee may | 34 | Turn-around times for sample received after 4:00pm will beg | Turn-around times for samples received after 4:00pm will begin | n Preserve | ally | nuppernon | |
| 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 | orized to enter | r into this Ag | Agreement with Fremont Analytical on b | h Fremont A | Analytical or | n behalf of t | he Client n | amed above | , that I ha | ve verified | Client's | TAT - ICAP | ica p | | |
| agreement to each of the terms on the front and backside of this Agreement. | rms on the fro | ont and back | side of this A | greement. | | | | 1 | | | | | Ī | | |
| Relinguished x bold man (25 | Date, 3/4 | Date/Time | PM | | Réceived | \geq | 3 | |) me | R | + | Gardina. | | | |
| Relinquished | Date | Date/Time | | | Received | | 100 C | ¹ Date/Time | ime | int in the pairs | San Charles | TAT → SameDay^ | NextDay^ | 2 Day 3 Day STD | |
| | | | | | | | | | | | | ^Please coordinate with the lab in advance | vith the lab in adv | vance | |

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| TAT \rightarrow SameDay ^A NextDay ^A 2 Day 3 Day STD ^Please coordinate with the lab in advance | Date/Time | leceived | a South in which it | Date/Time | 1 | elinqu |
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| | above, that I have verified Client's | 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 greement to each of the terms on the front and backside of this Agreement. Telinquished X Z M M P X X Z M M X Z M X Z M M X | e of this Agreement. | o enter into this Agreer the front and backside Date/Time | I represent that I am authorized to enter into this Agreement with Fremont agreement to each of the terms on the front and backside of this Agreement. Relinquished \sim 2 M/M IPM \times 1 PM | I represent agreement Relinquished |
| Se lave t | fee may be on the following business day. | 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.) | Disposal by Lab (Samples will be held for 30 da assessed if samples are retained after 30 days. | Return to Client Dispo asses | Sample Disposal: Return | Sample [|
| Special Remarks: | Turn-around times for samples received after 4:00pm will begin | O-Phosphate Fluoride Nitrat | Sulfate Bromide | Nitrite Chloride | **Anions (Circle): Nitrate N | ***Anio |
| Sb Se Sr Sn Ti TI U V Zn | Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb | Individual: Ag Al As B Ba Be Ca Cd (| Priority Pollutants TAL | RCRA-8 | **Metals Analysis (Circle): MTCA-5 | **Meta |
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| | | | | 34 3/4/17 | E3417 - P-CF-3 | 3 EG |
| | | | 1 | 24 3/4/17 > | 18 3417 - 1-0F-24 | 2 PC |
| | | | 7: AIM DW | 3/4/2017 | E 3417 - 5-08-24 | 1 |
| Comments | | 4055 (C24 C256 (C24 C24 (C24 (| Sample Type Time (Matrix)* | Sample Sar Date Ti | Sample Name | Samp |
| SW = Storm Water, WW = Waste Water | ing Water, GW = Ground Water, | SL = Solid, W = Water, | ⁹ = Product, S = Soil, SD = Sediment, | , B = Bulk, O = Other, P = Product, | *Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, | *Matrix (|
| Icrum.net | rmathews@efulcrum.net; cc:aenbysk@efulcrum.net | PM Email: | Fax: 509.575.8453 | 509.574.0839 | Telephone: 509.57 | Telep |
| 그렇게 가지만 그가 있니? 엄마 지지 않는 것이 가지 않았다. 지하고 않았다. 지하지 않았다. 정말에 가지 않는 것이 같다. 같이 하지 않아 아니는 것이 같아요. | Ryan Mathews | Report To (PM): | of the surf of the surface of the | Yakima, WA, 98901 | City, State, Zip: Yakim | City, |
| | Eastgate Elementary, Kennewick, WA | Location: | Chevron with a reveal | 406 North Second Street | 10 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | Address: |
| Collected by: | 162017.03 Colle | Project No: | ulting | Fulcrum Environmental Consulting | Child Bark And David | Client: |
| Page: of: | Page: Kennewick SD Drinking Water - Eastgate Elementary | Project Name: | | Tel: 206-352-3790 Fax: 206-352-7178 | 3600 Fremont Ave N. 7 Seattle, WA 98103 F | 3600 Seat |
| Laboratory Project No (internal): 103044 | Date: 3/4/2017 | | | nalytical | | |
| Chain of Custody Record and Laboratory Services Agreement | stody Record and Lal | Chain of Cus | | | | B |

COC 1.1 - 4 5 16 - 1 of 2

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| APlease coordinate with the lab in advance | | | * Cenyou | | | Date/ Ilme | a | Kelinquished x |
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| | (Card | L196 | (W) | | - IPM | 3/4/17 | s R | * Multuren |
| TAT-ASAP | t I have verified Client's | 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. | Analytical on behalf c | ent with Fremont f this Agreement. | this Agreemo d backside o | I represent that I am authorized to enter into this Agreement with Fremont agreement to each of the terms on the front and backside of this Agreement. | at that I am autho t to each of the ter | I represei |
| Present all interest | runn-around unnes tor samples received after 4:00pm will begin on the following business day. | Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite 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.) | O-Phosphate Il be held for 30 days unlet ined after 30 days.) | Sulfate Bromide O-Phosphat Disposal by Lab (Samples will be held for 30 day assessed if samples are retained after 30 days.) | Chloride Su Disposal assessed | Nitrite Ch Return to Client | (Circle): Nitrate | •••• Anions (Circle): Sample Disposal: |
| s Sb Se Sr Sn Ti Ti U V Zn Georaid Bennatie: | Cd Co Cr WFe Hg K Mg Mn Mo Na Ni Pb | As B Ba Be Ca Cd Co Cr O | Individual: Ag Al As | ollutants TAL | Priority Pollutants | MTCA-5 RCRA-8 | **Metals Analysis (Circle): MTCA-5 | ···Metals / |
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| Hold 3/6/17 NB | 4 | | | | | 2 | E653417 - T-NF-12 | + EGE |
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| | | × | | DW | 3/4/2017 7 AM | 2 | 1 ELE3417 - P - US - 0 | ECES |
| Comments | | | | Sample Type (Matrix)* | pie Sample Time | Sample | | Sample Name |
| Storm Water, WW = Waste Water | | 0 = Other, P = Product, S = Soil, SD = Sediment, SL = Soild, W = Water, DW = Drinking Water, GW = Ground Water, | D = Sediment, SL = Solid, | = Product, S = Soil, S | = Other, P = I | 509.574.0839 AQ = Aqueous, B = Bulk, O | A = Air, | Telephone: Matrix Codes: |
| in not | TEWS | (PAM): | | | | TAKIIIA, WA, SOSUL | te, Zip: | City, State, Zip: |
| | Eastgate Elementary, Kennewick, WA | 1 | | | 1 Street | 406 North Second Street | | Address: |
| Collected by: | 162017.03 Collec | Project No: 1620 | | Bu | ental Consulti | Fulcrum Environmental Consulting | | Client: |
| entary | Kennewick SD Drinking Water - Eastgate Elementary | Project Name: Kennewick | | | 2-7178 | Fax: 206-352-7178 | Seattle, WA 98103 | Seattle |
| Page:of: | | | | | -3790 | Tel: 206-352-3790 | 3600 Fremont Ave N. | 3600 Fr |
| Laboratory Project No (internal): 1703044 | 3/4/2017 | Date: | | | | | | |
| d Laboratory Services Agreement | Record and Lat | Chain of Custody Record an | Cha | | + | | | A A |

COC 1 1 - 4.5 16 - 1 of 2

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| × | Relinquished | Relinquished | I represent that I am au | Sample Disposal: | *** Anions (Circle): Nitr | "Metals Analysis (Circle): MTCA-5 | 10 | σ | 00 | 7 | 6 | 5 | + ECE3417 - P. | 3 EGE 3417 - P-CF - 34 | 28683417-1-08-24 | 1 EGE 3417 - 5-0F-24 | Sample Name | •Matrix Codes: A = Air, AQ | Telephone: | City, State, Zip: | Address: | Client: | Seattle, WA 98103 | 3600 Fremont Ave N. | | |
|--|---|-------------------------|--|--|--|--|----|---|----|---|---|---|----------------|------------------------|------------------|----------------------|--------------------------|---|-------------------|------------------------------|------------------------------------|----------------------------------|---|---------------------|-----------------------------------|---|
| | Date/Time | 3 Date/Time | I represent that I am authorized to enter into this Agreement with Fremont measured to each of the terms on the front and hackside of this Agreement. | Return to Client | Nitrate Nitrite Chloride | RCRA-8 | | | | | | | P-CF-35 3/4/17 | -cf-34 3/4/17 | -05-24 3/4/1 | 5-05-24 3/4/2017 | Sample Date | AQ = Aqueous, B = Bulk, O = Other, | 509.574.0839 | Yakima, WA, 98901 | 406 North Second Street | Fulcrum Environmental Consulting | Fax: 206-352-7178 | Tel: 206-352-3790 | Analytical | remont |
| × | 77 | | greement with Fremont Ana kside of this Apreement. | Disposal by Lab (Samples will be held for 30 day assessed if samples are retained after 30 days.) | Sulfate Bromide | Priority Pollutants TAL In | | | | | | | 6 | | × | 7.11m DW | Sample Time (Matrix)* | r, P = Product, S = Soil, SD = S | Fax: 509.575.8453 | | 7 | onsulting | 3 | | | |
| | Received V Date/Time | Received MA 3 Date/Time | 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 arreament to each of the terms on the front and harkside of this Agreement. | Disposal by Lab (Samples will be held for 30 days unless otherwise noted. A tee may be assessed if samples are retained after 30 days.) | O-Phosphate Fluoride Nitrate+Nitrite | Individual: Ag Al As B Ba Be Ca Cd Co Cr 😡 | | | | | | | × | | | | | V = Drin | PM Email: mathew | Report To (PM): Ryan Mathews | Location: Eastgate | Project No: 162 | Project Name: Kennewi | | Date: | Chain of Custody |
| ^ple: | | 0834 | hat I have verified Client's | ay | Turn-around times for samples Spein received after 4:00pm will begin | Fe Hg K Mg Mn Mo Na Ni Pb | | | | | | | × | (<u>x</u> | | | | tter, GW = Ground Water, SW = Storm Water, WW = Waste Water | | athews | Eastgate Elementary, Kennewick, WA | 162017.03 Collected by: | Kennewick SD Drinking Water - Eastgate Elementary | Page | 3/4/2017 tabo | Record and Labor |
| *Please coordinate with the lab in advance | TAT → SameDay ^A NextDay ^A 2 Day 3 Day STD | | 1 | Se rise - | Special Remarks: | Se Sr Sn Ti Ti U V Zn | | | | | | | | | | | Comments | rter, WW = Waste Water | net | | | by: | Y | | Laboratory Project No (internal): | Chain of Custody Record and Laboratory Services Agreement |



3600 Fremont Ave. N. Seattle, WA 98103 T: (206) 352-3790 F: (206) 352-7178 info@fremontanalytical.com

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

RE: Kennewick SD Drinking Water - Eastgate Elem. Work Order Number: 1703212

March 21, 2017

Attention Ryan Mathews:

Fremont Analytical, Inc. received 9 sample(s) on 3/20/2017 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)



| CLIENT: Project: Work Order: | Fulcrum Environmental Kennewick SD Drinking Water - Eastgate E 1703212 | | Sample Summary |
|------------------------------------|--|---------------------|--------------------|
| Lab Sample ID | Client Sample ID | Date/Time Collected | Date/Time Received |
| 1703212-001 | EGE31817-P-NF-12 | 03/18/2017 7:00 AM | 03/20/2017 9:00 AM |
| 1703212-002 | EGE31817-P-OF-15 | 03/18/2017 7:00 AM | 03/20/2017 9:00 AM |
| 1703212-003 | EGE31817-P-CF-19 | 03/18/2017 7:00 AM | 03/20/2017 9:00 AM |
| 1703212-004 | EGE31817-P-CF-20 | 03/18/2017 7:00 AM | 03/20/2017 9:00 AM |
| 1703212-005 | EGE31817-P-OF-24 | 03/18/2017 7:00 AM | 03/20/2017 9:00 AM |
| 1703212-006 | EGE31817-S-OF-24 | 03/18/2017 7:00 AM | 03/20/2017 9:00 AM |
| 1703212-007 | EGE31817-T-OF-24 | 03/18/2017 7:00 AM | 03/20/2017 9:00 AM |
| 1703212-008 | EGE31817-P-CF-34 | 03/18/2017 7:00 AM | 03/20/2017 9:00 AM |
| 1703212-009 | EGE31817-P-CF-35 | 03/18/2017 7:00 AM | 03/20/2017 9:00 AM |



Case Narrative

WO#: **1703212** Date: **3/21/2017**

CLIENT:Fulcrum EnvironmentalProject:Kennewick SD Drinking Water - Eastgate Elem.

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:

1703212-001A 211560: Prep Comments for EPA200.8, Sample 1703212-001A: 0.01 NTU 1703212-002A 211561: Prep Comments for EPA200.8, Sample 1703212-002A: 0.10 NTU 1703212-003A 211562: Prep Comments for EPA200.8, Sample 1703212-003A: 0.15 NTU 1703212-004A 211563: Prep Comments for EPA200.8, Sample 1703212-004A: 0.01 NTU 1703212-005A 211564: Prep Comments for EPA200.8, Sample 1703212-005A: 0.02 NTU 1703212-008A 211565: Prep Comments for EPA200.8, Sample 1703212-008A: 0.00 NTU 1703212-009A 211566: Prep Comments for EPA200.8, Sample 1703212-008A: 0.00 NTU 1703212-009A 211566: Prep Comments for EPA200.8, Sample 1703212-008A: 0.00 NTU 1703212-009A 211566: Prep Comments for EPA200.8, Sample 1703212-009A: 0.01 NTU

Qualifiers & Acronyms



WO#: **1703212** Date Reported: **3/21/2017**

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



 Work Order:
 1703212

 Date Reported:
 3/21/2017

| CLIENT:Fulcrum EnvironmentProject:Kennewick SD Drinkir | | ate Elem. | | | |
|--|---------------------|-----------|-------------------------|----------|-------------------------------|
| Lab ID: 1703212-001 Client Sample ID: EGE31817-F | P-NF-12 | | Collectior Matrix: D | | 3/18/2017 7:00:00 AM Water |
| Analyses | Result | RL Qua | l Units | DF | Date Analyzed |
| Drinking Water Metals by EPA M | <u>lethod 200.8</u> | | Batch | n ID: 16 | 542 Analyst: TN |
| Copper | 797 | 0.500 | µg/L | 1 | 3/21/2017 11:48:22 AM |
| Lab ID: 1703212-002 Client Sample ID: EGE31817-F | P-OF-15 | | Collectior Matrix: D | | 3/18/2017 7:00:00 AM Water |
| Analyses | Result | RL Qua | l Units | DF | Date Analyzed |
| Drinking Water Metals by EPA M | lethod 200.8 | | Batch | n ID: 16 | 542 Analyst: TN |
| Copper | 694 | 0.500 | µg/L | 1 | 3/21/2017 11:52:23 AM |
| Lab ID: 1703212-003 Client Sample ID: EGE31817-F | P-CF-19 | | Collectior Matrix: D | | 3/18/2017 7:00:00 AM Water |
| Analyses | Result | RL Qua | l Units | DF | Date Analyzed |
| Drinking Water Metals by EPA M | lethod 200.8 | | Batch | n ID: 16 | 542 Analyst: TN |
| Copper | | | | | |



 Work Order:
 1703212

 Date Reported:
 3/21/2017

| CLIENT:Fulcrum EnvironmentalProject:Kennewick SD Drinking | | ate Elem. | | | | |
|---|-------------|-----------|------|-------------------------|----------|-------------------------------|
| Lab ID: 1703212-004 Client Sample ID: EGE31817-P- | CF-20 | | | Collectior Matrix: D | | 3/18/2017 7:00:00 AM Water |
| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
| Drinking Water Metals by EPA Me | ethod 200.8 | | | Batch | n ID: 16 | 542 Analyst: TN |
| Copper | 674 | 0.500 | | μg/L | 1 | 3/21/2017 12:08:31 PM |
| | | | | | | |
| Lab ID: 1703212-005 | | | | Collection | n Date: | 3/18/2017 7:00:00 AM |
| Client Sample ID: EGE31817-P- | OF-24 | | | Matrix: D | rinking | Water |
| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
| Drinking Water Metals by EPA Me | ethod 200.8 | | | Batch | n ID: 16 | 542 Analyst: TN |
| Copper | 821 | 0.500 | | µg/L | 1 | 3/21/2017 12:12:32 PM |
| Lab ID: 1703212-008 | | | | Collection | n Date: | 3/18/2017 7:00:00 AM |
| Client Sample ID: EGE31817-P- | CF-34 | | | Matrix: D | | |
| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
| | | | | | | |
| Drinking Water Metals by EPA Me | ethod 200.8 | | | Batch | n ID: 16 | 542 Analyst: TN |



 Work Order:
 1703212

 Date Reported:
 3/21/2017

| CLIENT: | Fulcrum Environmenta | al | | | | |
|------------|------------------------------------|------------------|-----------|-----------------------|----------|-------------------------------|
| Project: | Kennewick SD Drinkin | g Water - Eastga | ate Elem. | | | |
| | 1703212-009 mple ID: EGE31817-P | -CF-35 | | Collection Matrix: | | 3/18/2017 7:00:00 AM Water |
| Analyses | | Result | RL Qual | Units | DF | Date Analyzed |
| Drinking \ | Water Metals by EPA M | lethod 200.8 | | Batch | n ID: 16 | 542 Analyst: TN |
| Copper | | | 0.500 | | | 3/21/2017 12:20:35 PM |



| Work Order: | 1703212 | | | | | | | | | 2 | SUMMAR | | ORT |
|------------------|------------|-------------|---------|----------|-----------|-------------|------|---------------|-------------------|-------------|------------|----------|---------|
| CLIENT: | Fulcrum En | vironmental | | | | | | | | | | | |
| Project: | Kennewick | SD Drinking | Water - | Eastgate | EI | | | I | Jrinkin | g Water Me | tais by EP | 'A Metho | d 200.8 |
| Sample ID MB-16 | 542 | SampType | MBLK | | | Units: µg/L | | Prep Date | : 3/20/20 |)17 | RunNo: 350 | 065 | |
| Client ID: MBLK | W | Batch ID: | 16542 | | | | | Analysis Date | : 3/21/20 | 017 | SeqNo: 670 | 0309 | |
| Analyte | | F | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper | | | ND | 0.500 | | | | | | | | | |
| Sample ID LCS-16 | 6542 | SampType | LCS | | | Units: µg/L | | Prep Date | : 3/20/2 0 | 017 | RunNo: 350 | 065 | |
| Client ID: LCSW | | Batch ID: | 16542 | | | | | Analysis Date | : 3/21/20 | 017 | SeqNo: 670 | 0310 | |
| Analyte | | F | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper | | | 105 | 0.500 | 100.0 | 0 | 105 | 85 | 115 | | | | |
| Sample ID 170321 | 11-007ADUP | SampType | DUP | | | Units: µg/L | | Prep Date | : 3/20/2 0 | 017 | RunNo: 350 | 065 | |
| Client ID: BATCH | 1 | Batch ID: | 16542 | | | | | Analysis Date | : 3/21/20 | 017 | SeqNo: 670 | 0312 | |
| Analyte | | F | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper | | (| 0.689 | 0.500 | | | | | | 0 | 200 | 30 | |
| Sample ID 170321 | 1-007AMS | SampType | MS | | | Units: µg/L | | Prep Date | : 3/20/20 | 017 | RunNo: 350 | 065 | |
| Client ID: BATCH | 4 | Batch ID: | 16542 | | | | | Analysis Date | : 3/21/20 | 017 | SeqNo: 670 | 0313 | |
| Analyte | | F | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper | | | 200 | 0.500 | 200.0 | 0 | 100 | 70 | 130 | | | | |
| Sample ID 170321 | 11-007AMSD | SampType | MSD | | | Units: µg/L | | Prep Date | : 3/20/2 0 | 017 | RunNo: 350 | 065 | |
| Client ID: BATCH | 4 | Batch ID: | 16542 | | | | | Analysis Date | : 3/21/20 | 017 | SeqNo: 670 | 0314 | |
| Analyte | | F | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper | | | 213 | 0.500 | 200.0 | 0 | 106 | 70 | 130 | 200.1 | 6.16 | 30 | |



Sample Log-In Check List

| CI | ient Name: | FE | Work Order Num | nber: 1703212 | | |
|------------|----------------------|--|----------------|---------------|----------------|--|
| Lc | gged by: | Clare Griggs | Date Received: | 3/20/2017 | 7 9:00:00 AM | |
| <u>Cha</u> | in of Custo | dy | | | | |
| 1. | Is Chain of Cu | stody complete? | Yes 🖌 | No 🗌 | Not Present | |
| 2. | How was the s | ample delivered? | <u>FedEx</u> | | | |
| <u>Log</u> | In | | | | | |
| - | Coolers are pr | esent? | Yes 🖌 | No 🗌 | | |
| 0. | | | | | | |
| 4. | Shipping conta | iner/cooler in good condition? | Yes 🗹 | No 🗌 | | |
| | | present on shipping container/cooler? nents for Custody Seals not intact) | Yes | No 🗌 | Not Required 🔽 | |
| 6. | Was an attem | ot made to cool the samples? | Yes 🖌 | No 🗌 | NA 🗌 | |
| 7. | Were all items | received at a temperature of >0°C to 10.0°C* | Yes ✔ | No 🗌 | NA 🗌 | |
| 8. | Sample(s) in p | roper container(s)? | Yes 🖌 | No 🗌 | | |
| 9. | Sufficient sam | ple volume for indicated test(s)? | Yes 🖌 | No 🗌 | | |
| 10. | Are samples p | roperly preserved? | Yes 🗹 | No 🗌 | | |
| 11. | Was preservat | ive added to bottles? | Yes 🖌 | No 🗌 | NA 🗌 | |
| | In the second second | | | | HNO3 | |
| | | pace in the VOA vials? | Yes ∟ Yes ✔ | No 🗌 | NA 🗹 | |
| - | | s containers arrive in good condition(unbroken)? rk match bottle labels? | Yes ⊻ Yes ⊻ | No 🗌 No 🗌 | | |
| 14. | | | | | | |
| 15. | Are matrices c | orrectly identified on Chain of Custody? | Yes 🗹 | No 🗌 | | |
| 16. | Is it clear what | analyses were requested? | Yes 🗹 | No 🗌 | | |
| 17. | Were all holdir | ng times able to be met? | Yes 🖌 | No 🗌 | | |
| Spe | cial Handlir | ng (if applicable) | | | | |
| - | | ified of all discrepancies with this order? | Yes 🖌 | No 🗌 | | |
| | Person N | | | 3/20/2017 | | |
| | By Whom | | jt. | hone Fax | In Person | |
| | Regardin | | | | | |
| | Client Ins | - | ,0.0. | | | |
| 19 | Additional rem | 1 | | | | |

Item Information

| Item # | ł | Temp ⁰C |
|--------|---|---------|
| Cooler | | 2.9 |
| Sample | | 1.9 |

^{*} Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

COC 1.1 - 4.5.16 - 1 of 2

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| <th co<="" th=""></th> | |
|--|--|
| Date: | |
| Project Name: <u>Scholard Scholard Li</u> Project Name: <u>Conversion & Spanna</u> Report To (PM): <u>Ryan Mathews</u> PM Email: <u>Imathews@efulcrum.net; cc: aenbyske</u> W = Water, DW = Drinking Water, GW = Ground Water, SW =: W = Water, DW = Drinking Water, GW = Ground Water, SW =: The generation of the state of t | |
| Becord and L: 3/18/2017 3/18/2017 all statuting of the sta | |
| | |

| | 0 100 | | | | | Ch | ain of Cus | stody | Record and | La | boratory Services Agreement |
|--|-----------------------|----------------|---------------|----------------|--------------------|-----------|---|---|------------------------------|---------|--|
| | eme | onu | | | | | | Data | 2/19/2017 | | 1703212- |
| 3600 Fremont Ave N. | Anioi Tel: 2 | 06-352-3790 | | | | | | Date: | 5/18/2017 | | Page: of: |
| Seattle, WA 98103 | | 206-352-7178 | | | | | Project Name: | Ker | newick SP | Pr | Laboratory Project No (Internal): 1703212 Page: of: in King Later - Easts ate ected by: Amanda Enbysk |
| Client: | Fulcrum Envi | ironmental Co | onsulting | | | | Project No: | | | Colle | ected by: Amanda Enbysk |
| Address: | 406 North S | Second Stree | t | | | - | Location: | Eas- | tgate Elem. | | |
| City, State, Zip: | Yakima, WA | , 98901 | | | | | Report To (PM): | Ryan Ma | athews | | |
| Telephone: | 509.574.083 | 9 | Fax: | 509.575.84 | 153 | - | PM Email: | rmathev | ws@efulcrum.net; cc: aenby | /sk@e | fulcrum.net |
| *Matrix Codes: A = Air, AQ | t = Aqueous, B ≠ | Bulk, O = Othe | er, P = Prod | luct, S = Soil | , SD = Sediment, S | L = Solid | W ⇒ Water, DW = I | Drinking Wa | ter, GW = Ground Water, SV | N = Sto | orm Water, WW = Waste Water |
| | | | Sample | Sample Type | - ER BISI OF | | | 2/ 22/ 24/ 2/ 22/ 24/ 2/ 22/ 24/ 2/ 22/ 24/2 | | | Secret PHON |
| Sample Name | | Sample Date | Tíme | (Matrix)* | 1 5 5 5 | 68/3 | \$ 3 2 2 2 | 20 Nel | 8 8 8 1 | R | Comments |
| 1 EGE31817-P- | NF-12 | 3/18/2017 | 7AM | DW | | | | K | | X | NB 3/20/17 |
| 2 56631817-12-1 | 0F-15 | 1 | N | 1 | | | | * | | * | NB 3/20/17 |
| 3E6E31817-P- | CF-19 | | | | | | | × | | × | NB 3/20/17 |
| +EGE31817-P | | | | | | | | × | | × | NK 2/20/17 |
| 5EGE31811-P | | | | | | | | X | | X | al to |
| 6 11 S | | | | | | | | | | | Hold - Unaversa |
| 7 11 T- | OF -24 | | | | | | | | | | It is the age is |
| 8 11 P- | CF-54 | | - | | | - | | × | | x | Hold - Unpresend Hold - Unpresend NB 3/20/17 NB 3/20/17 |
| ، ج ۱۰ ج ، ۱ و | | 1 | 1 | 4 | | | | × | | + | NR 3/20117 |
| 9 . (. | | | 1 | 4 | | | | | | - | ND 9/2011 |
| 10 **Metals Analysis (Circie): | MTCA-5 | CRA-8 Pric | ority Polluta | ints TAL | | | B Ba Be Ca Cd C | | | Ni Dh | o Sb Se Sr Sn Ti TI U V Zn |
| ***Anions (Circle): Nitra | | Chloride | Sulfate | | | | | +Nitrite | Turn-around times for same | | Special Remarks: |
| | Return to Clier | nt 🗔 | Disposal by | Lab (Sample: | | days unle | Fluoride Nitrate ss otherwise noted. A | | received after 4:00pm will b | oegin | TAT ASAP |
| I represent that I am aut | | r into this Ag | reement w | ith Fremor | t Analytical on be | | the Client named a | above, that | I have verified Client's | | |
| agreement to each of the Relinquished | | /Time | nde of this | Agreemen | Received | | | Date/Time | | | Please Preserve all unpreserved |
| * Nathan Bo | CONTRACTOR CONTRACTOR | 18-12 | | | 8 | | | 3/2 | 20/2017 0900 | | ` |
| Relinquished | Date | /Time | | | Received | | | Date/Time | - the the left | | TAT \rightarrow SameDay ^A NextDay ^A 2 Day 3 Day STD |
| A | | | | | × | | | | | | APlease coordinate with the lab in advance |

- 201